

**The Bologna Process for U.S. Eyes:
Re-learning Higher Education in
the Age of Convergence**

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Abbreviations and Acronyms Used in This Monograph

AEC	<i>Association Europeene des Conservatoires, Académies de Musique et Musikhochschulen</i>
BFUG	Bologna Follow-up Group
BMBF	<i>Bundesministerium für Bildung und Forschung (Germany)</i>
CHEPS	Center for Higher Education Policy Studies (Netherlands)
CIPES	Centre for Research in Higher Education Policies (Portugal)
CNCP	<i>Commission Nationale de la Certification Professionnelle (France)</i>
DAAD	<i>Deutscher Akademischer Austausch Dienst (Germany)</i>
EC	European Commission
ECTS	European Credit Transfer and Accumulation System
EHEA	European Higher Education Area
ENIC	European Network of Information Centers
ENQA	European Association for Quality Assurance in Higher Education
EQF	European Qualifications Framework for Lifelong Learning
ERASMUS	European Community Action Scheme for the Mobility of University Students
ESU	European Students Union
EWNI	England, Wales, Northern Ireland
HIS	<i>Hochschul Informations System (Germany)</i>
HRK	<i>Hochschulrektorenkonferenz (Germany)</i>
HsV	National Agency for Higher Education (Sweden)
IHE	Institution of higher education
IUT	<i>Institut Universitaire de Technologie (France)</i>
KMK	<i>Kultusministerkonferenz (Germany)</i>
MEN	<i>Ministère de l'Éducation Nationale Enseignement Supérieur et Recherche (FR)</i>
NARIC	National Academic Recognition Information Center
NQF	National Qualifications Framework
OCW	Ministry of Education, Culture, and Science (Netherlands)
QAA	Quality Assurance Agency (U.K.)
QFEHEA	Qualifications Framework of the European Higher Education Area
RNCP	<i>le Répertoire national des certifications professionnelles (France)</i>
RPL	Recognition of Prior Learning
SCQF	Scottish Credit and Qualifications Framework
ZMT	Zone of Mutual Trust

Executive Summary

Background: the Age of Convergence

Since May of 1999, 46 European countries have been engaged in reconstructing their higher education systems to bring about a greater degree of “convergence,” i.e. a move toward common reference points and operating procedures to create a European Higher Education Area. This voluntary undertaking, a logical extension of the idea of European integration that has been deepening since 1950—as well as a cultivation of seedlings of change in higher education that were planted in the 1990s—affects 4000 institutions and 16 million students, an enterprise comparable to the size and scope of higher education in the United States.

The undertaking is known as The Bologna Process, named for the Italian city that is home to Europe’s oldest university, where the education ministers of 29 countries first agreed to the agenda and “action lines” that would bring down education borders in the same way that economic borders had been dissolved. That means harmonization, not standardization. When these national higher education systems work with the same reference points they produce a “zone of mutual trust” that permits recognition of credentials across borders and significant international mobility for their students. Everyone is singing in the same key, though not necessarily with the same tune. In terms reaching across geography and languages, let alone in terms of turning ancient higher education systems on their heads, the Bologna Process is the most far reaching and ambitious reform of higher education ever undertaken.

What has transpired since 1999 cannot be but lightly acknowledged in the United States. While still a work in progress, parts of the Bologna Process have already been imitated in Latin America, North Africa, and Australia. The core features of the Bologna Process have sufficient momentum to become the dominant global higher education model within the next two decades. Former Secretary of Education, Margaret Spellings’ Commission on the Future of Higher Education paid no attention whatsoever to Bologna, and neither did the U.S. higher education community in its underwhelming response to that Commission’s report. Such purblind stances are unforgivable in a world without borders.

But since the first version of this monograph, a shorter essay entitled *The Bologna Club: What U.S. Higher Education Can Learn from a Decade of European Reconstruction* (Institute for Higher Education Policy, May 2008), U.S. higher education has started listening seriously to the core messages of the remarkable and difficult undertaking in which our European colleagues have engaged. Dozens of conferences have included panels, presentations, and intense discussions of Bologna approaches to accountability, access, quality assurance, credits and transfer, and, most notably, learning outcomes in the context of the disciplines. In that latter regard, in fact, three state higher education systems—Indiana, Minnesota, and Utah—have established study groups to examine the Bologna “Tuning” process to determine the forms and extent of its potential in U.S. contexts. Scarcely a year ago, such an effort would have been unthinkable.

Economist Jeffrey Sachs calls ours “the age of convergence,” and, indeed, that is what we witness when U.S. higher education opens its borders to learning. We’ve had a good run, as the saying goes, but we are no longer at the cutting edge. U.S. higher education can no longer sail on the assumption of world dominance, oblivious to the creative energies, natural intelligence, and hard work of other nations. We cannot rely on 50 research universities and 50 selective liberal arts colleges—some of which boast budgets and endowments (however diminished) greater than those of entire countries—to carry the day for the mass of our students. We cannot live in a room of mirrors, claiming that we are so unique that nothing occurring beyond that room matters. Mirrors lead to delusions, and to short-term, positivistic bean counting. We are mesmerized by the immediacy of “how much,” absent a historical “how well.” It’s time to break the mirrors. The point is not that other countries produce more degrees; it is that they just might be producing better degrees, certainly degrees whose reference points in student learning outcomes and meaning is transparent—something that cannot be said for the degrees we award.

The Bologna Process is an analogue to the macroeconomic theory of convergence, the ways in which nations move from different stages of development to a more-or-less common platform of performance. Macroeconomic historians have demonstrated time-and-again: nations that learn from other nations grow; those that do not learn, don’t. Up to now, the U.S. has not even registered for the course, but it is our turn to learn, and hope lies in the fact that we have begun.

Much of the point of learning from other nations is differential perspective. It’s something U.S. higher education consistently advocates in matters of inter-cultural understanding: we want our students to be able to see the world from perspectives other than their own. When one watches other nations address problems similar to one’s own, with languages and cultural traditions that cast their solutions through lenses one has never used, new ways of configuring your own solutions inevitably arise. Inevitably, as in “I never thought about it that way!” Call them epiphanies. The slow walk through the Bologna Process that this document offers should bring many such moments.

Nature of This Document

The title of the document is a deliberate play on the title of the biennial reports on the progress of Bologna produced by the European Students’ Union, *Bologna With Student Eyes*. It is a way of paying tribute to student involvement in the Bologna reforms, and marking a parallel student working participation in the state system “Tuning” study groups in the U.S.

The Bologna Process for U.S. Eyes is a monograph, a considerable expansion of the previous *Bologna Club* essay. Drawing on hundreds of documents in 8 languages, interviews with principal actors in 9 countries, and suggestions from two rounds of European reviewers, it brings to a broad academic audience in the United States an account and analysis of what

European higher education authorities, academic leaders, faculty, and students have accomplished and learned over the first decade of their considerable efforts, particularly in the challenging matters of

- Student learning outcomes (set in what are called “qualification frameworks”),
- The relationship of these frameworks to credits and curriculum reform,
- The construction of new paths to student participation in higher education, including refinement of “short-cycle” degrees analogous to our Associate’s, and combinations of e-learning and part-time status,
- The reflection of all of this in the documentation of student attainment called “Diploma Supplements,” and the expansion of this documentation in a lifelong “Europass,”
- The establishment of a “zone of mutual trust” through an all-encompassing culture of quality assurance, and an international accreditation register, and
- Consolidating and hence clarifying the myriad of academic credentials offered across 46 countries into common “cycles,” which, in combination with qualification frameworks, a common credit system, and quality assurance, assures the recognition of degrees across national borders.

These highlights help clarify, for North American readers, what Bologna is and what it is not. Some of them are extraordinarily relevant to challenges that face U.S. higher education, and are particularly applicable to accountability and access issues—in ways we simply have not considered. This document urges us to learn something from beyond our own borders that just might help us rethink our higher education enterprise.

Based on what we can learn from the experience of our European colleagues, the earlier *Bologna Club* essay made some very concrete suggestions for change across the U.S. higher education system, all of them following a student-centered story line of accountability, including

- Developing detailed and public degree qualification frameworks for state higher education systems, and, for all institutions, following the Tuning model, in students’ major fields;
- Revising the reference points and terms of our credit system;
- Expanding dual-admissions “alliances” between community colleges and four-year institutions;
- Refining our definition and treatment of part-time students; and
- Developing a distinctive version of a diploma supplement that summarizes individual student achievement.

We call this sequence the “accountability loop,” and argue that it is a far more effective road to quality degree completion than simply posting numbers on public dashboards—what U.S. higher education seems to think is sufficient to satisfy policy-makers. Posting numbers of degrees awarded, time-to-degree, and dubious “value-added” test scores of small samples of students may be a form of documentation, but after one studies the Bologna Process, one realizes that it is decidedly *not* “accountability.” There are no reference points of meaning in those numbers, and they certainly have little to do with what Europeans call “quality assurance.”

The presentation of these suggestions in this document starts with the “Tuning” process of establishing reference points and building templates for student learning outcomes at the level of the academic discipline because that is the level at which faculty are organized and trained, and the path on which students express their principal academic interest. In combination with Diploma Supplements, Tuning is the most likely point on the accountability loop to appeal to the U.S. system, and, indeed, that is where the first major exploration of potential adaptation of Bologna is taking place in the state systems of Indiana, Minnesota, and Utah. Tuning inevitably leads to the other stops on the accountability loop, and may give us degree qualification frameworks in time, as well.

The presentation in this Executive Summary is, of necessity, highly condensed. The monograph text offers further detail and accounts of nuances that are inevitable when 46 countries are involved. While the text cites a few statistics and provides some reflections on the current state of European data on higher education, the major topic of comparative international data on higher education participation and attainment will be addressed in yet another report from the Institute for Higher Education Policy’s Global Performance project in mid-2009.

The Landscape of European Institutions and Students

Given the subject and scope of this essay, U.S. readers need some background reminders of what higher education systems and students in Europe look like, as well as where higher education reforms sit in relation to broader education and training reforms of the European Union.

Institutions: There are basically four kinds of “tertiary” institutions: universities, institutions of “applied sciences” (the polytechnics, *Fachhochschulen*, *hogescholen*, etc.) that resemble the hundreds of U.S. colleges in which the vast majority of enrollments are in occupationally-oriented fields, free-standing specialty institutions including medical schools and conservatories, and institutions that straddle the upper levels of secondary education and lower levels of tertiary. What we call liberal arts colleges are almost invisible. Private institutions can be found principally in Eastern Europe, are predominantly for-profit, but are still a small proportion of the European landscape. While there are also non degree-granting trade schools comparable to those in the U.S. that offer certificates, they are not considered postsecondary (whereas we include them in the postsecondary universe).

Students and Access: The average age at which students enter higher education in Europe ranges from 19 (France) to 25 (Sweden). Older beginning students are a target of expanding access under the Bologna Process “action line” called “the social dimension.” For traditional-age students coming out of upper secondary schools, the principal route to entrance is through high school leaving examinations or university entrance exams. In general, if you pass the exam, your admission to any institution of higher education is guaranteed, though not necessarily in the major program of your choice. Medicine is always a case of selection (and candidates have already studied organic chemistry and molecular biology in high school); music requires an audition; fine arts, a portfolio. Some admissions processes are centralized (e.g. Portugal), and in some cases (e.g. Czech Republic) the capacity of the system is limited, and you may be rejected on those grounds. In general, one can count the number of U.S. high school graduates who qualify to be directly admitted to most European *universities* on one’s fingers and toes (for an example, go to www.cimea.it foreign student admissions guidance).

Major Programs and Electives: With rare exceptions (e.g. Sweden), students are admitted to specific major programs, e.g. chemistry, nursing, business. While regulations differ by system, changing majors after entrance is almost as common a phenomenon in some countries as it is in the United States. And while there is no “general education” segment of a degree program, depending on major field, the portion of the program set aside for electives can be significant. In fact, in some degree programs, the lists of both required and elective courses look very similar to the traditional “cafeteria” approach to general education in the U.S.

Change Prior to Bologna: Some countries’ higher education systems underwent dramatic changes in the years leading up to the advent of Bologna, e.g. Finland expanded by a third, and Poland added 300 private institutions in the 1990s with enrollments now constituting 30 percent of its system. Change was particularly dramatic in Eastern Europe, where, after the fall of the Iron Curtain in 1989, whole societies sought to find footing amidst vacuums of organization and protocols, and higher education was swept up in the ensuing dynamics.

Higher Education as Part of Something Bigger: At least in the 27 nations of the European Union, the Bologna reforms are proceeding in parallel to a transcendent process known as the Lisbon Strategy, one that also includes vocational education, lifelong learning, and research. While the Lisbon Strategy and the reform of vocational education at all levels (under the so-called “Copenhagen Declaration”) are not our principal concern, and while the Bologna Process has moved more quickly and penetrated more widely, there are points of intersection that are important in our analysis, and this document provides sufficient information to appreciate those points, e.g. a lifelong learning agenda and the representation of individual education, training, language fluency, and skills in an electronic “Europass.” We also underscore some points of tension between Bologna and Lisbon, e.g. in the matter of vocational versus academic credits.

Degree Cycle Changes Under Bologna, both Noted and Less Noted

The most visible change in European higher education to U.S. observers has been the adoption of a standard degree structure in three cycles that we identify as Bachelor's, Master's, and Doctoral, with countries seemingly converting all their existing programs to a three-year Bachelor's and two-year Master's, and U.S. graduate school admissions committees in a resulting quandary about how to judge the new three-year Bachelor's. Actually, the conversion is neither that simple nor that uniform.

First, the new European degree cycles made room for "short cycle" degrees (some of which previously existed) analogous to our Associate's, but considered as *within* the Bachelor's cycle, though not all of them are used by students to advance to the Bachelor's level.

Second, not all degree programs converted to the 3+2 model, and many conversions are simply repackagings. We find 3+1 (in the UK, where, with the exception of engineering and architecture degrees, this relationship is traditional), 4+2, 3 ½ + 1 ½, etc. let alone five and one-half and six year degrees in medicine. Even less noted is the fact that "three years" or "two years" refers to "notional time" (i.e. the *equivalent* of X years of full-time study), not elapsed calendar time.

Less noted, still, is the emergence of the new Master's degree as the empirical standard for completion of higher education study. While access to the Master's is not guaranteed, in Switzerland the continuation rate from three-year Bachelor's to two-year Master's degrees among university students is 90 percent; in Germany, 80 percent among university students, and 40 percent of the *Fachhochschule* students. By some interpretations, the new Master's is simply a repackaging of the old, longer Bachelor's degrees, but in a global labor market, where labels count, this trend presents a major challenge to U.S. students. The Master's level has also become the principal home of joint inter-country degree programs, hence advancing the cross-border mobility objectives of Bologna reforms.

While not a product of Bologna, we should note the intermediate credentials traditionally offered in a number of countries, e.g.

- The Swedish "diploma," granted, on application, roughly two-thirds of the way toward a Bachelor's degree;
- The traditional German *Vordiplom*, awarded after successful completion of second year examinations; and
- The Dutch *propaedeutic* certificate, awarded on passing all subjects and examinations in the introductory portion of a program.

So while everybody is committed to three cycles, there are a number of stops between them. In fact, on the landscape of European credentials are dozens of intermediary minor and special purpose awards, for which credit markers are used. Short-cycle degrees within the first cycle of undergraduate work, certificates, diplomas and post-baccalaureate diplomas—these are not necessarily “lesser” awards, rather formal recognitions of progress. They could be made at different stages of an otherwise unitary course of study, something else for us to think about.

What We Can Learn, Part 1: Qualification Frameworks

What does each level of degree we award (associate’s, bachelor’s, master’s, doctoral) mean? What does it represent in terms of student learning? What does a degree in a particular field at each of those levels mean, and what does it represent in terms of student learning? These sound like common sense questions that have obvious and public answers. But obvious and public answers are not easily available, and that’s what some of our recent arguments about accountability in the United States have been about. Furthermore, the U.S. arguments tend to stagnate on process issues, whereas, under Bologna, these questions are about content. The Bologna Process has been very clear about the conceptual elements with which degrees should be described: learning outcomes, level of challenge, “competences,” and student workload. Our first guidance for answering these questions can best be found in “qualification frameworks.”

What is a Qualifications Framework?

A qualifications framework is a statement of learning outcomes and competencies a student must demonstrate in order for a degree at a specific level to be awarded. It is not a statement of objectives or goals: it is a warranty. When an institution of higher education is governed by a qualifications framework, it must “demonstrate” that its *students* have “demonstrated.” While a qualifications framework does not dictate *how* that demonstration takes place (the nature and form of assessments employed), it does provide learning outcome constructs within which the demonstration is conducted. This is a *form* of accountability worth our serious consideration.

A second key characteristic of a qualifications framework is that the description of learning outcomes for a degree clearly indicates how that degree differs from the degree level below it and the degree level above it. The language of the frameworks accomplishes this end by a *ratcheting up* of benchmarks. This “ratchet principle” pervades all of the content challenge and performance statements of Bologna—and penetrates the credit system as well. This principle is an *engine* of accountability worth our serious consideration.

There are three strata of qualification frameworks in different stages of development in the European Higher Education Area:

1) The transnational **Framework for Qualifications of the European Higher Education Area**, to which all Bologna participants have agreed, and, of necessity, the broadest and most generic of the accountability forms. Think of our Associate's, Bachelor's, and Master's degrees. Under the Framework for Qualifications there are five learning outcome constructs, each of which evidences the "ratchet principle" in their descriptions:

- The reference points of "knowledge and understanding";
- The contexts and modes of application of knowledge and understanding;
- Fluency in the use of increasingly complex data and information;
- Breadth and depth of topics communicated, along with the range of audiences for that communication; and
- Degree of autonomy gained for subsequent learning.

As one moves up through the texts of the credential ladder, one notes the fading of occupational orientation, the emergence of social and ethical dimensions of learning, and the passage from well-defined contexts and problems to more fluid and dynamic contexts and problems. This general and parsimonious description both attracts agreement and allows for subsequent levels of elaboration and variation in both national qualification and disciplinary frameworks. While we may not describe our Associate's, Bachelor's, and Master's degrees with the same constructs or with the same wide-angle diction, the point is that 46 countries took these as organizing principles based on learning outcomes and drew lines in cement to separate them clearly.

2) **National Qualifications Frameworks**. In theory, one would expect each country's higher education system to take the Qualifications Framework for the European Higher Education Area and develop its own compatible version, more detailed, taking into account the peculiar varieties of institutions in that system and their historical missions and commitments, and, where applicable, including "intermediate" qualifications between the three degrees. In practice, that's not exactly the way it happened. Creating and obtaining consensus on an NQF is a time-consuming challenge, and as of 2007, it appears that only seven of the 46 Bologna countries had completed the task. The essay walks the reader through five distinct models of such frameworks, those of

- The Republic of Ireland (a comprehensive vertical framework with 10 levels from kindergarten to doctorate);
- Germany (a more parsimonious phrasing distinguished by articulating ways students must demonstrate knowledge through what are called instrumental competencies, systemic competencies, and communicative competencies);

- Sweden (which departs from others by specifying key variations at the level of the Bachelor's degree for 40 applied fields, some of which lead to licensure occupations, e.g. audiology, nursing);
- The Netherlands (where qualifications statements refer to labor market positions and tasks, and the overall structure of the qualifications statement comes in two columns: one for universities and one for the institutions of applied science, the *hogescholen*); and
- France (which created a process and registry under which every program credential at every institution of higher education in the country is submitted for review and approval in a standard format, and basically undergoes the first stage of an accreditation review).

And adds important variations in the NQFs of two separate higher education authorities: Scotland and England/Wales/Northern Ireland (EWNI).

3) Disciplinary/Field Qualification Frameworks. This level of specifying expectations for student learning and competence has received the most attention, and proceeds through what is known as the “Tuning Project.” Even before the broad discussion of national qualifications frameworks began, the Tuning Project (see below), designed to help the disciplines articulate outlines and benchmarks for subject specific knowledge and generic skills and competencies expected at the summative moment of each level of study, was well underway in nine disciplines—and with 16 others joining in 2005. “Tuning” has now been taken up by 182 universities from 18 countries—and in 12 disciplines—in Latin America, and is under the first stage of serious study in the “Tuning U.S.A.” project sponsored by the Lumina Foundation for Education. Something resonates here, and it is deserving of separate treatment.

What Can We Learn?, Part II: “Tuning and Its Analogues”

“Tuning” is a methodology, including a consultation phase with recent graduates and employers, that produces “reference points” for faculty writing criterion-referenced statements of learning outcomes and competencies in the disciplines, providing a common language for (1) academic-subject specific knowledge, and (2) generic competencies or shared attributes. Among the latter, it distinguishes the instrumental (cognitive, methodological, technological, and linguistic), interpersonal, and systemic. In the description of each of these, the ratchet principle is clearly at work, i.e. it is clearly possible to develop learning outcomes statements in the disciplines that mark *levels* of mastery. The monograph provides examples from business and chemistry, but also illustrates the considerable difficulties institutional faculty have in writing such statements. An evaluation of the language of Tuning pointed to statements that describe activities but not learning outcomes, statements that are “so vague as to be meaningless,” and statements of the obvious—none of which help fulfill the objectives of this undertaking. We can learn so as to do it better—and so can they. One constructive entrance to learning outcome

statements is through the verb, i.e. paying close attention to what students actually *do* to demonstrate competence, and this monograph devotes a separate section to the grid of learning analysis that arises from that pivot point.

Benchmarking

The benchmarking approach to learning outcomes at the disciplinary level is a prominent analogue to Tuning, and is a strong suit of the Quality Assurance Agency in the United Kingdom. Benchmarking statements provide Tuning-type reference points and boundaries for designing, modifying, and evaluating the presentation of a discipline by an institution or group of similar institutions. They are public disciplinary maps indicating what, precisely, graduates will “demonstrate.” The monograph illustrates with the cases of accounting (where the vocabulary follows the ratchet principle: it moves from “basic understanding” to “thorough understanding,” from “simple” to “complex” situations, etc.) and history (in which assessment and the judgment of student performance plays a significant role).

“Program specifications,” the analysis contends, are neither Tuning or benchmarking, and we use cases from the UK and France to demonstrate. But all of these structures—Tuning templates, benchmarking, and program specifications—are far cries from the simple listing prerequisites and credits that dominate departmental catalogue statements of major requirements in nearly all U.S. institutions of higher education.

Project Polifonia

Conservatories of music and performing arts are more prominent on the European higher education landscape than in the United States. Illustrating the ways in which Bologna principles spread outside of its formal channels through what are known in the European Union as “Thematic Networks,” the conservatories of Europe organized their own discipline-based qualifications guidance in Project Polifonia, and the essay pays significant attention to this undertaking because the performing arts are probably more transparent than other disciplinary areas when it comes to articulating what students should be able to demonstrate and at what level of competence, for determining how much time it takes students to prepare for that demonstration, and for translating that time into credits. We learn what “sustaining arguments and solving problems” means in music, along with the portfolio of reference points—repertoire skills, ensemble skills, improvisational skills, knowledge of performing traditions, technological developments in music, and research—to which all participants in Project Polifonia agreed. Consideration of Polifonia is an ideal lead-in to our third chapter of learning from the Bologna Process, a very different conception of credits.

What Can We Learn? Part III:
The European Credit Transfer and Accumulation System (ECTS),
a Very Different kind of Currency

Credit systems existed in a number of countries, e.g. Scotland, Spain, Sweden, Finland and the Netherlands before Bologna, though based on different units of analysis. The European Credit Transfer System (ECTS) was in use broadly in the 1990s, but only for purposes of transfer for students from one country studying in another country under the rubrics of the ERASMUS student mobility programs. In general, ECTS was not used for purposes of credit *accumulation* until Bologna was well under way. While some of the pre-Bologna credit systems are still in use, all of them translate their metrics into ECTS.

In its original formulation under Bologna, there are three components to the assignment of ECTS credits: student workload, learning outcomes, and grades. That combination proved to be a difficult brew, and, in practice, student workload dominates. The ECTS system begins with a very different orientation from that used in the U.S. We base our credit assignments on faculty contact hours, with the assumption that in relation to each faculty contact hour, the student engages in other types of learning activities. ECTS uses the *student* as the primary reference point, asks how many hours the student must spend to accomplish the various tasks in a course module, and converts the total to credits. If executed faithfully, this approach requires faculty to detail each learning activity in a course and estimate the number of hours the average student would require to complete that activity successfully. While European faculty tend to be more mechanical than analytical in their assignment of credits, the essay provides illustrative cases, along with reports of empirical—versus estimated—student time-on-task.

The more critical issue is how to connect workload and learning outcomes so that the credit system becomes part of the qualifications framework in a persuasive and substantive manner. The essay describes two approaches to this objective, both based on the ratchet principle:

- At the University of Uppsala in Sweden, where 20 (Swedish) credit blocks are defined by ever more challenging topics and methodologies, a principle extended to the Master's degree level.
- In the UK and Scotland, which developed "credit levels" (8 in the UK; 12 in Scotland), each of which carries a generic description, independent of discipline but that can be applied to all disciplines. As one moves up the credit levels, the descriptions clearly mark expansion of scope and challenge of tasks. Degree qualifications can then be set in terms of minimums at each credit level, e.g. 40 percent of credits at level 6, 65 percent of credits at levels 5 and 6.

A credit system based on student workload (and level of challenge) inevitably results in curriculum reform. Faculty rethink what is compulsory and what is optional, what is pre-requisite, what is duplicative, and what can be delivered in different modes. As the leaders of Project Polifonia point out, a student workload-based credit system forces faculty to reflect on what they demand of students, and, “as a result, it turns our attention from teaching to learning.” That, in itself, is a salutary change.

What Can We Learn?, Part IV: Different Routes to Access and Participation

Our interest in the Bologna degree cycles is not to evaluate their comparability to U.S. degrees, or to explore the conditions of eligibility of European graduates for admission to different graduate programs in the United States. What should be of greater relevance to U.S. audiences are the ways in which other elements of the Bologna Process portfolio are brought into relief by the cycles, and the range of interactions between higher education and economy that the Bologna cycles open up.

Reflection on the degree cycles also brings the “social dimension” of the Bologna action portfolio onto the stage. “Social dimension” is a code not merely for increasing access to higher education for under-served populations, but for increasing participation on the paths that lead to first and second cycle degrees by creating and improving connecting routes from points outside the formal higher education system. The “social dimension” is not a reflex matter of reaching isolated rural populations, students with disabilities, children of immigrants, and working-class adults: it is a matter of *how* one establishes connecting routes into the higher education system for these populations. There are four ways these connections play out and the universe of participants on degree paths expanded:

- The growth of short-cycle degrees within the first cycle,
- The growth and treatment of the part-time student populations,
- The increasing use of e-Learning as a flexibility tool for access, and
- Procedures for the recognition of prior learning in both formal and non-formal settings.

All these developments—along with bridge programs for students crossing from occupational to academic paths or from first to second cycle programs—have a notable impact on our assessment of the time it takes to earn credentials. All of these are detailed in the monograph, with particular attention to the evidence that they promote increased access and participation. The verdicts:

- Because they are offered by institutions that also award Bachelor’s degrees or that are formally allied to bachelor’s degree-granting institutions, the short-cycle degrees are successful at moving their students into bachelor’s programs, but as

other routes into higher education have contracted, there is a net wash on access rates;

- The expansion of part-time status has increased access, particularly among older beginning students and students from rural areas, but has not necessarily increased completion rates, though we witness some very creative approaches to this objective in Scotland (University of Aberdeen) and Sweden;
- e-Learning may increase capacity (U.S. higher education knows this well), but has not been fully integrated in the European lifelong learning agenda, hence has yet to assist low participation populations; and
- Using recognition of prior learning to expand participation in higher education is problematic, though the evidence suggests that it helps those who previously participated and those who can use their occupational base as the source for documenting learning.

What Can We Learn? Part V: The Diploma Supplement

After qualification frameworks, Tuning, credits and their levels, and pathways into and through degree cycles, what evidence of learning and attainment does the student graduate carry forward into the world, and how is that evidence communicated? After all, isn't there a graduation ceremony at which a single piece of paper on which a degree is officially recorded, stamped, and surrounded by ancient heraldic symbols presented to the student? Isn't that enough? Not in an undertaking such as the Bologna Process. Another document, both personal and public, is called for, one that functions as an assurance.

Our European colleagues had an attractive idea in the Diploma Supplement, to wit: the piece of paper called the diploma says nothing about the institution and very little about the student, yet we place an enormous trust in its symbolic power; so something else is needed. The national system needs that something else to verify its responsibility for the credential awarded within its borders. The institution needs that something else to reinforce the legitimacy of its programs. Most of all, though, the student needs that something else to tell the story of his or her unique achievement, and enable international mobility for purposes of further study or work. It is a matter of certified and transparent evidence, conveyed in a concise and direct manner. But as one reads through examples of Diploma Supplements from a range of countries, only one of the three parties to the document, the national system, is well served. The attractive idea needs some serious revisions in practice, and this is a case in which a U.S. version of the Diploma Supplement can help clarify what is at issue. This essay outlines just such a U.S. Diploma Supplement, and hopes that our European colleagues will be more than intrigued.

What We Can Learn, Part VI: Quality Assurance

Historically, quality assurance in Europe is a much bigger tent than accreditation (as we know it in the U.S.). It is a culture of review that presumably yields self-consciousness of facets of improvement necessary at the levels of disciplinary program, institution, and national system. But this culture was inconsistently expressed in action across the 46 Bologna participants to the extent to which (a) a great deal was taken on faith, without common reference points, (b) holes in enforcement of quality criteria allowed some institutions of dubious quality to slip into national systems, and (c) most institutions were so consumed with increasing enrollments that quality issues slipped off the table.

No doubt with a background boost from Bologna, the Council of Europe gave birth to the European Network for Quality Assurance in Higher Education (known as ENQA), one of the major structures that was then adopted, sanded, and polished by Bologna, and was invited to ensure that a pan-European quality assurance system would accompany other Bologna action lines. In terms of the “accountability loop,” quality assurance cements the achievement of the other major dynamics.

Almost immediately—as one might guess—the effort ran into problems with language, and in our analysis, the quality assurance chapter opens onto the broader language landscape of Bologna, and the challenges it has presented to all participants. Indeed, quality assurance is a case of language becoming a way of life. The language, and its execution, once again hammers home the difference between “information” and “accountability,” something U.S. higher education has yet to understand fully. A culture of quality within the daily life and rhythms of institutions—including regular discipline-specific reviews, transparent statements of student learning outcomes and performance standards, and continuous improvement based on internal audits—is the core of the language of quality. The monograph illustrates the different yet analogous ways in which these behaviors are evidenced in the UK, Sweden, and Germany.

The German case is tied more closely to accreditation issues than the others, and leads naturally to consideration of the establishment of a continental registry of approved accreditation agencies, tellingly (the word, “accreditation,” is not used) called the European Quality Assurance Register. The monograph describes the way in which the Register was established, along with its processes and criteria, and offers a case of accreditation in the disciplines through engineering, hence a connection to the U.S. Accrediting Board in Engineering and Technology (ABET) and its potential international role, hence the more general proposition of international quality assurance.

The “External Dimension” of Bologna

The framers of Bologna sought to make the European Higher Education Area a competitive presence on the world stage. When one reflects on Bologna’s “external dimension” agenda, it is about a great deal more than attracting students from other world regions and thus competing with the U.S., Canada, and Australia. It is also about increasing the flow of European students across borders (intra-European mobility), increasing the odds of cross-border labor market flow as a by-product of common qualification frameworks and recognition of degrees, and increasing cooperation of European institutions across borders in curriculum development, joint degrees, and quality assurance.

The monograph picks two facets of the “external dimension” for elaboration. First, the ways in which the Bologna Process itself has become a teacher for the rest of the world’s higher education systems, a role that is more about cooperation than competitiveness. Second, features of cross-border joint degree programs at the Master’s degree level, a growing phenomenon. At the present moment, and however impressive the growth in ERASMUS student mobility programs, only 4 percent of European undergraduates participate, partly as a by-product of problems with portability of grants, housing and living expense costs in the second country, unavailability of courses students expected to take, and continuing problems with credit transfer. With the conversion of most Bachelor’s degree programs to 3 years, there is less opportunity to take a term or a year in another country, so the Master’s level becomes a more attractive option for mobility, particularly through joint degrees, examples of which are presented. Enrollment volume in these programs is low, but the level of curricular and structural creativity high.

The Language Landscape

One of the most remarkable features of the unfolding of all the complexities of the Bologna Process across 46 nations is the language setting: 23 major languages in the 27 countries of the European Union alone. The default *lingua franca* of European English is translated and retranslated so often that it often loses its moorings to the realities it has tried to represent, so sensitivity to terminology and nuance in the languages of origin is a *sine qua non* of interpretation for all Bologna participants.

And Bologna participants do it. For example, the first Tuning process in Business Administration involved faculty from 12 countries speaking 10 languages, and writing learning outcome reference points across the “value chain” of a firm: procurement, marketing, distribution, customer service, etc. Somehow, they succeeded in overriding linguistic nuances, but we can imagine the adjustments along the way that came from Italian and Norwegian participants, or Portuguese and Greek interpretations of the core learning outcome terms. Languages and their accompanying traditions also create specialized vocabularies, as in definitions of beginning higher education students or term and examination periods, for

example. If and when all Bologna countries turn to the task of consolidated data collection, these vocabularies will present considerable challenges to standardization. Even though over 100 languages are spoken in the United States, the speakers are dispersed across multiple political jurisdictions, and most of us don't even think about language conundrums in talking or writing about higher education. Europeans cannot avoid the topic.

It's not only higher education as an enterprise that is at issue on the language landscape: it is also the economies into which presumably employable freshly-minted degree recipients will move. Facing the challenge of a single economic market and a pluralistic and expanding political and cultural landscape, Europe is very serious about language learning. Even at the level of our occupationally-oriented Associate's degrees, some countries ask for demonstration of oral competence in a second language and value it more than the competences associated with writing in the student's native language. In addition to supporting "sustained employability," second language competence is seen as an intercultural value, a means of enhancing all cognitive functions, and a way to lift the educational attainment of entire populations. The details of European language policy are worth contemplating in the United States.

Bologna 2020: It is Still a Work in Progress

As Bologna approaches its original 2010 deadline for completing and implementing its core "action lines," virtually all participants recognize that there is still much to do, that some nations have moved more quickly than others, that nations joining the club four or five years after the Declaration have much further to travel, that critical adjustments are called for, and reconciliations with the broader Lisbon Strategy are necessary. 2020 is a more realistic target.

The Bologna Process has been a highly reflective undertaking, and European participants themselves know where they are lagging in their own agendas and how to take the learning of a decade forward. They see that the original overarching motivations for Bologna have been superseded by its tools and adjuncts. They have stepped back from over-reaching visions. Everyone seems to have a list of unchecked to-do projects. Some will offer configurations of recognition, social dimension, and/or external dimension task. Others will hone in on discrete agenda entries such as e-Learning or student participation in Quality Assurance processes.

This monograph offers five macro dimensions of the unfinished Bologna portfolio to illustrate what is left to be completed: national qualification frameworks, the penetration of core reforms throughout the faculties, the full integration of the lifelong learning agenda of the Lisbon Strategy, data development (convergence of definitions of student-level behaviors, and production of both standard and non-standard indicators of performance), and intensified teaching to the rest of the world—including us. This is not an exhaustive list.

What Might U.S. Higher Education Do With This Learning?

Our primary story is about providing students with clear indications of what their paths through higher education look like, what levels of knowledge and skills will qualify them for degree awards, and what their degrees mean. These are road signs that are sorely lacking now. Student “success” does not mean merely that you have been awarded a degree, but that you have learned something substantial along the way and that the world knows what you have learned, what skills you have mastered, and that you have the momentum to meet the rising knowledge content of the global economy. This public evidence does not derive from administering a test to a sample of students to prove that an institution “adds value” to something that, at best, is indirectly taught. If your discipline, institution, and system have all established and publicly promulgated clear and discrete criteria for learning and thresholds of performance, that evidence, in itself, creates a powerful endorsement. When backed by a Diploma Supplement, you have a public warranty.

For U.S. public policymakers, the primary message to students translates into worrying less about how many pieces of paper we pass out, how many credits qualify someone for those pieces of paper, and how long it takes a highly mobile student population to arrive in a graduation line, and more about the knowledge, the application of knowledge, the information identification and retrieval skills, and the degree of learning autonomy students acquire and take with them into economic and community life. That’s something for U.S. policy makers and academic leaders of the “get-it-over-with-and-get-it-over-with-fast” school (who then complain about what graduates don’t know or can’t do, and for whom persisting part-time students are a paradoxical anathema), should think *very* seriously about.

The monograph also argues that the development of the road signs of qualification frameworks, revisions of the way the credit currency is established, and meaningful public documentation of learning—all of which have been demonstrated by the Bologna Process—would have a reconstructive effect on state systems and individual institutions in the United States. Some of our colleges, community colleges, and universities will say that they already engage in some of the practices evident in the Bologna reconstruction. We certainly can point to the exemplary. But we do not engage in these exemplary practices systematically, and we do not engage in them to scale.

Sudden moments of insight along the Bologna pathway may also lead us to consider more sophisticated geocoding systems to identify the low-hanging apples among low-participating populations, relabeling of Bachelor’s degrees in applied fields (to parallel what we already do at the Associate’s level), attention to learning outcomes benchmarks for undergraduate education by our disciplinary learned societies, reconciliation of course-numbering systems with levels of challenge embedded in our courses, replacing articulation agreements with dual-admissions alliances for purposes of increasing the volume and effectiveness of community college to four-year college transfer, development and expansion of a jury system for recognition of non-formal

and informal learning, and part-time degree contracts. These innovations, singly or together—and taken to scale—would contribute to our goals of increasing meaningful participation in higher education, degree completion, and granting our students recognition in a global economy.

To repeat the theme from an Age of Convergence: nations that learn from other nations grow.

Nations outside “the Bologna Process 46” have studied and begun to adapt some of the core features of the European reconstruction. They do so not to imitate, but to improve within their own traditions. In so doing, they link themselves to an emerging paradigm where the smart money is on cooperation and conversation. We are starting to learn. It is not such a bad idea.

**The Bologna Process for U.S. Eyes:
Re-learning Higher Education in the Age of Convergence**

PART I: A TAPESTRY OF CHANGE

1. Nature, Purpose, and Origins of This Document

The global economy changed a while ago. We either knew it or sensed it before the cascading financial disasters of 2008. U.S. corporations and organizations conduct core business and operations (and not merely marketing and sales) in other countries. Foreign corporations and organizations reciprocate in the United States. Ownership obviously knows no borders. Physical location has given way to cyber-location, intertwining us more than ever. Yes, physical goods (from aircraft to apricots) move from place to place; yes, retail and personal care services are local. But knowledge services know no place, and knowledge services determine what quantities of what physical goods will move from here to there, determine what qualities of human life can and will be enhanced, determine what materials and processes will be discovered, shaped, and adopted in the rhythms of life, and will determine what combination of initiatives will begin to pull rich and poor nations alike back from the edge of the chasm they now face. These knowledge services, and every facet of their distribution, draw up the level of learning across populations everywhere. Culture and language ensure that the world is not flat, but in the matter of knowledge it is, and the world's knowledge content is rising.

And so the world is learning more—or appears to be learning more. It is not surprising, nor should it be disappointing. The level of learning which we judge adequate to participate in knowledge services (from creation to management) begins after students pass through the various structures known as secondary education. Crossing that border, nation states deliver—and make room for others to deliver—courses of study (in a variety of forms, structures, and processes) that culminate in the award of higher credentials. The rates at which populations enter postsecondary education (called “tertiary education” in many countries) and complete these credentials are used as proxies for learning.

But it ain't necessarily so, and nowhere in recent years have public authorities, academic leaders, faculties, and students wrestled more with the knots of credentials and learning than in the old nations of Europe, “from Cork to Vladivostok,” as they put it (stretching the continent a bit).

This monograph is a considerable expansion of the previously published (May 2008) *extended essay, The Bologna Club: What U.S. Higher Education Can Learn from a Decade of European Reconstruction* from which was spun out a shorter policy brief, *Learning Accountability from Bologna: a Higher Education Policy Primer* (July 2008). These three documents bring to a broad academic, policy-making, and general audience in the United States:

- The most important core features of the reconstruction of higher education across 46 countries on the European continent known as the Bologna Process. Twenty nine of these countries have been involved since the Bologna Declaration was signed by education ministers in 1999, with others joining the effort at later dates. The original timetable called for all the provisions of the Declaration to be implemented by 2010, but subsequent experience, inevitable inertia and resistance, new provisions, and additional partners have pushed back the realization of objectives probably by a decade. In terms reaching across geography and languages, let alone in terms of turning ancient higher education systems on their heads, the Bologna Process is the most far reaching and ambitious reform of higher education ever undertaken. It is still a work in progress, but as it has attracted both considerable attention and imitation of some of its features by former colonial countries in Latin America, Africa, Southeast Asia, and Australia, it has sufficient momentum to become the dominant global higher education model within the next two decades.
- Highlights of what European higher education authorities, academic leaders, faculty, and students have accomplished and learned in the course of their efforts, particularly in the challenging matters of student learning outcomes (set in what are called “qualification frameworks”), the relationship of these frameworks to credits and curriculum reform, and the reflection of all of this in the documentation of student attainment called “Diploma Supplements.” These highlights, along with quality assurance, mechanisms for increasing access and flexibility, the interface of European higher education with the rest of the world (known as the “external dimension”), and the complex language landscape through which all this occurs, help clarify what Bologna is and what it is not. Most (but not all) of the topics covered have been selected because they are extraordinarily relevant to challenges that face U.S. higher education, and this document urges us to learn something from beyond our own borders that just might help us rethink our higher education enterprise. As the official Bologna Follow-up Group observed, “No other initiative has mobilized so many people [in Europe], apart from the creation and development of the EU in 1957” (BFUG 2008, p. 2). Eventually, some of these reforms will get to us, too.

The title of this presentation, *The Bologna Process for U.S. Eyes*, is a deliberate play on the title of the biennial assessment of the progress of Bologna by the European Students Union (ESU), *Bologna With Student Eyes*. The allusion is intended to pay tribute to student involvement in the massive undertaking that is Bologna, and a purposeful slap at both former U.S. Secretary of Education, Margaret Spellings’ Commission on the Future of Higher Education and the U.S. higher education community in its response to the report of that commission— neither of which involved students in visible and substantive ways, if at all. If a nation or nations pretend to

reform their higher education business for the putative benefit of students, they would do well to bring students along in the effort. They would find dedicated and smart advocates.

In addition to expanding the original topics of *The Bologna Club* in this document, a number of new sections and motifs have been added to provide a fuller account of the texture and “action lines” of the Bologna Process. New sections:

- Quality Assurance, which encompasses yet transcends the emerging system of accreditation in Europe;
- The “Bologna Code,” on learning outcomes and competences;
- The “external dimension” of Bologna, i.e. its related objectives of making the European Higher Education Area more attractive to students from other parts of the world, its engagement and cooperation with higher education systems outside Europe, and enhancing the cross-border mobility of its own students; and
- The future of the Bologna Process, which will hardly end at its first target date of 2010.

Recurring motifs:

- The relation between higher education reform of Bologna and the broader effort of the European Union in what is known as the Lisbon Strategy which, when it comes to education, is directed at lifelong learning and encompasses vocational as well as academic objectives;
- The language landscape in which reforms across 46 countries are being carried out; and
- “Convergence” as a macroeconomic nest for understanding the structural changes in higher education, both in Bologna-participating countries and elsewhere.

There is a considerable amount of information and detail in all of this, and, in fact, that is the primary purpose of this document: to provide, for U.S. readers, a broad account of European higher education reforms of the past decade (conducted and/or stimulated principally by Bologna), with enough concrete illustrations to enhance understanding. This presentation does not claim to be definitive, does not address—let alone settle—arguments among Europeans about who is more responsible for what or what interpretive theories about variations in the design and execution of Bologna reforms are more persuasive. Rather, by explicating all the major Bologna “action lines” in the same place, and raising questions about their virtues and limitations, it hopes to stimulate further inquiries and analysis on our side of the Atlantic.

The original *Bologna Club* also made some very concrete suggestions for change across the U.S. higher education system based on what we can learn from our European colleagues’ efforts. All of these suggestions followed a student-centered story line of accountability, including

- Developing detailed and public degree qualification frameworks for state higher education systems, and, for all institutions, in students' major fields;
- Revising the reference points and terms of our credit system;
- Expanding dual-admission “alliances” between community colleges and four-year institutions;
- Developing and expanding “bridge” access programs between stages of higher education;
- Refining our definition and treatment of part-time students; and
- Developing a distinctive version of a diploma supplement that summarizes individual student achievement.

These suggestions were integrated in the essay in bold, following each topical section of the presentation. In *The Bologna Process for U.S. Eyes*, the suggestions have been pulled from the text and given their own chapter at the end of the manuscript (section 13 below).

All this is a tall order for a document of this length and style, and might have been taller had it also included a chronicle of the sometimes twisted trails of development of each action line, along with an account of the role of finance, and an analysis of the governance of higher education systems in relation to Bologna in the 46 participating countries. Those are subjects for another day—in fact, for many other days, and principally by the hands of scholars in the participating countries. And accounts of access and participation, for example, are subjects that depend on the development of more extensive, regularly scheduled, and sophisticated data systems than one currently witnesses in too many Bologna-participating countries. This essay will elaborate on such data and information issues in Section 12 below, when speculating on the future of the Bologna Process.

Behind this monograph—and for those who are interested in even more detail—we provide an information resources library of some 700 documents gathered and either reviewed, read, scanned, and/or translated in the course of this project, and organized in 22 topical bins. This information resources library was posted on the Institute for Higher Education Policy Web site’s “Global Performance Initiative” silo at www.ihep.org/Research/GlobalPerformance.cfm. This library is always a file-in-process, and will be updated at least annually.

Sources of Information

As noted, 46 countries are participating—to a greater or lesser extent—in the Bologna Process, some of them prior to its plenary event in 1999. There is an enormous amount of information available to the Web researcher, principally from:

- The Bologna Process committees and Follow-Up Groups,
- European University Association's *Trends* reports (there have been five of these), and the *Stocktaking* reports (sponsored by the European Commission, and now biennial),
- The European Students Union's, *Bologna With Student Eyes* (biennial),
- Annual Bologna progress reports submitted by each participating country, and from individual Ministries and their statistical arms, national associations (e.g. Rectors' Conferences), transnational organizations such as the European University Association, research centers (e.g. CHEPS in the Netherlands, CIPES in Portugal, CHE in Germany), transnational surveys ("Eurostudents" and "Eurobarometers"), and individual institutions of higher education themselves. While this essay will cite a few statistics and provide some reflections on the current state of European data on higher education, the major topic of comparative international data on higher education participation and attainment will be addressed in another report from the Institute for Higher Education Policy's Global Performance project later in 2009.

In addition to a substantial selection of this Web-based information (both in English,¹ and translated from Dutch, French, German, Polish, Portuguese, Spanish, and Swedish documents), the background for this essay included

- Interviews and discussions with faculty and administrators in institutions of higher education, research institutes, ministries, and national higher education organizations in a selection of Bologna-participating countries: Austria, France, Germany, the Netherlands, Scotland (whose higher education authority is separate from that for the rest of the United Kingdom), Slovenia, and Sweden.
- E-mail interviews and document exchanges with ministries and research centers in Portugal and Poland.
- Participation in forums and seminars devoted to Bologna Process issues of the Academic Cooperation Association in Brussels and the European Association for Institutional Research, follow-up exchanges and assistance from attendees and presenters from Denmark, Norway, Spain, Switzerland, and the United Kingdom, and participation in the 2008 annual forum of the Institutional Management in

¹The reader should note that when documents in English are quoted, the original European English spellings are used, e.g. "specialised" (for specialized), "competences" (for competencies), "programme" (for program), etc.

Higher Education of the Organization for Economic Cooperation and Development (OECD) at which a number of Bologna-related papers were presented and discussed.

Other Bologna-participating countries should not feel slighted by the list: it is what the author was able to accomplish in a condensed and intense effort between June 2007 and September 2008.

Appendix A lists the individuals (and their organizational affiliations) who so generously gave of their time, efforts, and wisdom to enlighten this undertaking. The author hopes readers join in gratitude.

1.1 Bologna: What is it, and Where Did it Come From?

In the view of this monograph, the Bologna Process came about, at least in spirit (though not in mechanisms), as a delayed subordinate by-product of European integration in its third phase. That integration started with economics in what we once called the Common Market (technically, the European Economic Community, or EEC, born in the merged governance of the steel and coal industries in 1950), moved to political tasks of reconciliation and development with the fall of the Berlin Wall, then back to economics with the Maastricht Treaty of 1992 (technically, *Treaty on European Union*) and its establishment of the European Monetary Union under the eventual flag of the Euro. Though the treaty didn't have much to say about higher education, it recognized that the European economy was knowledge-based and hence fed by the system that generates and distributes knowledge. That recognition led to considerable improvements in the education systems of countries whose industries and finances were already interlocked, and to the importance of recognizing shared history and culture. Given the timing of efforts spinning out of this recognition in the late 1990s, a period of notable bloodshed in the Balkans, the Bologna Process explicitly acknowledged a peace-motivation in intensifying European integration through education reform². In this reading, educational cooperation and enhanced cross-border mobility of students and faculty were seen as an inoculation against spreading tensions. The existing student mobility programs, most notably ERASMUS (European Community Action Scheme for the Mobility of University Students) could not, in themselves, be turned into a broader structure of reform, and no pan-European organization had the legal authority to impose reform.

²The phrasing of this issue is appropriately euphemistic: "The importance of education and educational cooperation in the development and strengthening of stable, peaceful democratic societies is universally acknowledged as paramount, the more so in view of the situation in South East Europe." *The Bologna Declaration of 19 June 1999*.

It is important for U.S. readers to be reminded that the European Union does not cover all the countries in Europe (there are 27 countries in the EU in 2007; there were 15 at the time of the Bologna Declaration in 1999), that the EU is part of Bologna and not vice-versa (in fact, the European Commission did not join the Bologna Follow-up Group until 2003), and that the Euro is a dominant, but not universal, currency. Despite considerable variance in language and culture (which remains, as it should), Europe began to resemble a quasi-federal arrangement: a set of states with no economic borders yet a common workforce that was ironically stuck behind political borders because these countries, united in other ways, and despite agreements, did not yet fully recognize—or even understand—their neighbors' education credentials³. In order to recognize credentials across borders and thus to provide mobility for the advanced knowledge workforce, some convergence of education practices and standards was called for, and broad consensus sought at the European level. Bologna offered national systems of higher education the opportunity to join a “club” exercising similar (though not identical) forms of educational development. Eventually, they all joined, though with varying degrees of enthusiasm. It was the only game in town, so to speak. And its members now include 4,000 institutions of higher education and 16 million students, an enterprise comparable to the scope of higher education in the United States.

1.11 “Convergence”: Macroeconomics and Metaphor

The word, “convergence,” is frequently used to describe both the objectives and processes of Bologna. Yet it is imperfectly understood, tossed around too casually, and sometimes presented in an overly-complex manner. The term is used in this presentation in both its various macro-economic lineages and as a metaphor. The leap from the economic theory of convergence clubs to education system metaphor, the author contends, is a modest one.

In macro economic theory, “convergence” basically refers to the forces that render different economies more alike (DeLong and Dowrick, n.d.) Looking back to the industrial revolution, and (some would argue) to the medieval guilds, convergence is nothing new. Those nations whose economies “converged” were in a “club” of varying membership. Some economists see convergence as a narrowing of variance, e.g. in distribution of output, productivity levels, and real wage levels, across countries. DeLong and Dowrick think of it differently. They use the economies of “northwestern Europe” as the norm, and see convergence as the “assimilation in other countries of the institutions, technologies, and productivity levels” of that northwestern European norm (p. 3). But, they add, this is “as much a structural and organizational target as one indicated by levels of GDP per worker.” (p. 3) Transferred to the Bologna realm, we watch the “narrowing of variance” in structural factors, processes, qualification frameworks, degree cycles, and credits, and not merely participation and graduation rates (by traditional output

³To be fair, as Johanna Witte of the Bavarian [State] Institute for Higher Education Research and Planning would add, these barriers also included “non-integrated pension and social security systems” (personal communication).

measures, for example, Finland is ahead of Ireland; by structural, etc. convergence measures, the case is precisely the reverse). When similar structural, process, and content factors are diffused across borders, the *grounds* of convergence have been established.

Convergence is opposed to divergence in this continual alignment and realignment of national economies. Leung (2003) argues that part of the dynamic is explained when lagging countries grow by learning from advanced countries, and ascribes “divergence” as reflecting a failure to learn. Inter-country learning is not exactly a novel phenomenon among post-industrial nations which benefit from each other’s R&D (Coe and Helpman 1995). This trade is part of a larger pattern of the relationship between the diffusion of technology and economic development. Seen through this theory, Bologna is a form of technology transfer that brings nations from different platforms of educational development to a point of embracing similar paradigms, though some economists would argue that “innovation-based growth theory” has greater explanatory power than technology, and that the “club” of less developed countries has only a “finite window of opportunity” to change policies and institutions to influence its growth trajectory (Howitt and Mayer-Foulkes 2004).

When we make that leap from economic theory to the metaphors of higher education we are talking about gaps in ideas, not technology. One school says that gaps in ideas are easy to solve (provided one is willing to learn from others) and that there are no opportunity costs associated with those gaps. Another school (Leung, in this case) argues that “the transfer of technology, of knowledge, and even of ideas. . . is never free.” (p. 4). “Because knowledge is embodied,” he continues, “technology transfer is a complex process of learning,” but that “even when the teachers are willing to teach and the students are eager to learn, transmitting ideas is far from easy or automatic.” (p. 5) Brought into the realm of our inquiry, the Bologna countries have been focused on deepening the transformations in their own neighborhood, and not caring that much about how U.S. higher education responds, i.e. up to now, the teachers have not reached a stage of development where they are willing to teach. And in North America (Canada included with the U.S.), the students have not even acknowledged that they are students, let alone registered for the course.

Witte (2008) contends that, from the outset, there was a “tension between convergence and diversity” (p.83) in Bologna. That is, at the same time that the signatories committed themselves to specific action lines that would bring their systems to similar paradigms, (a) each national system wished to maintain at least some of its distinctive character, and (b) within these systems, IHEs were driven to differentiate missions and specialties by student enrollments, program niche building, perceived positions in the new global “trade” of education, and reputational competition. She contends that the Bologna vision of convergence is that of a process, not an end result, and a process that, by its principal location in the teaching-and-learning role of higher education, could change other features of higher education systems, e.g. access and funding.

This is a matter of interpretive nuance, for the process of change toward a different paradigm of the ways knowledge is distributed and that distribution validated—granting diversities in national systems and idiosyncrasies of institutional missions—is itself a product. One might also invoke the analogue of the process of European economic integration to understand how joining the convergence club overrode treasured diversity. What did economic “convergence” mean in the period just before the Maastricht treaty establishing the European Monetary Union? It meant that all would-be participating economies moved into a predictable and comparatively narrow band of long-term nominal interest rates, as a way of convincing “the markets of their determination to maintain an anti-inflationary stance.” (Torres 2007, p. 20). Thus, “national fiscal policies” were “constrained by binding rules.” (p. 20). Bologna does not issue “binding rules,” but there is no doubt that, within its core action lines—qualification frameworks, degree cycles, the ECTS credit system, and Diploma Supplements—there has been a voluntary binding, even though national adaptations play out in slightly different forms and with distinct variations in pace. Interest rates are easier to move than are educational traditions.

Leung’s point about the complex process of learning required for convergence is a powerful notion, not only for otherwise lagging European countries who joined the Bologna Process late in its first phase, but also for U.S. higher education to consider in light of the growing and spreading Bologna paradigm. We’ve got to learn, plain and simple, because no matter how much we don’t want to admit it, we are lagging—not in access or degree production, either, because that’s not the point,⁴ rather in the meaning, challenge, and value of the degrees we do award. History, Leung asserts, teaches us that “world economic development evolves where economic followers learn from the leader” (p. 20), and in higher education in 2009, Bologna is the leader. That doesn’t mean the Euros have done everything as well as they could; that doesn’t mean they have a finished product; and that doesn’t mean that other countries should swallow whole an incomplete technology. But history suggests, as Leung recommends, that us Less Developed Countries begin “a step-wise, gradated approach to learning” from the leaders (p. 21). In this context, the U.S. is a less developed country. We will come back to this step-wise, gradated learning when considering the pressure points of our own enterprise that adapted Bologna solutions might alleviate.

1.12 The Pre-History of Bologna and Its French Connection

Reflecting on the historical setting for Bologna, and reflecting the experience of living in a formerly totalitarian state, Pavel Zgaga of the University of Ljubljana in Slovenia offers an important window:

⁴Pritchett (1996) warns us not be too facile about the association between years of schooling (and derived educational capital) measures. . .and ‘human capital’” which is a much broader concept,” (p. 4) not to assume that enrollment rates are a proxy for human capital growth.

“Europe entered the 1990s convinced that nothing would be the same any more. It was a dangerous feeling, however. When entering a new period, people sometimes forget the past. But the past does not disappear; in fact, the past is only rounded-up in such periods; that is, it is ‘constructed.’” (Zgaga 2007, p. 8)

It's a compelling statement because, as Zgaga remarks, when we talk about current trends or future trends we must distinguish these from “previous trends.” And Bologna as we think of it had a substantial “pre-history.” He sees the massification of higher education, particularly in the “suburb” countries of Europe (e.g. Portugal, Spain, Greece, Ireland) and in the former Soviet states in the 1990s as the principal previous trend—so Bologna had a very different landscape in which to sprout and grow than would have been the case in the 1960s. The second historical wave was that of international consciousness overriding “national universities.” All that is fairly obvious, particularly in Europe, and led to educational policies being included in international discussions and policy. If one goes by the 1988 *Magna Charta Universitatum*, it is obvious that, within their autonomies, national universities had to play transcendent and international roles.

The suburb countries and the former Soviet states were not the only locations of ferment and change on the European landscape of the 1990s. The Germans had to deal with nagging by-products of reunification, including absorbing and transforming the universities in the former eastern sector. The Finns built out their system with a polytechnic sector, the UK ostensibly collapsed a binary system by folding its polytechnics into universities, the open universities expanded in tandem with the technologies of distance education, etc. And across the nation states grew the supra-national organizations stemming from the European Union, located in Brussels, and which, as Guy Neave (2005) trenchantly observed, tried to turn higher education into “an instrument of European policy” (p. 7), a utilitarian engine, an economic institution designed for efficient employment, and a vision resisted by universities everywhere. At the same time, Neave contends, the empirical experience of students crossing borders for study or attempting to cross for purposes of efficient employment after earning credentials revealed just how discombobulated the tertiary systems of Europe had become. Something had to move them closer to each other.

Looking backward, one can identify a number of stages in this convergence, each of which is named for the setting in which the meeting of the minds took place:

- **The Lisbon Recognition Convention** of 1997, at which, under the aegis of UNESCO, 29 European countries agreed to a set of principles for mutual recognition of education credentials, from grade school to graduate school, and articulated eight (8) broad levels on which these credentials should sit. The eight levels later became the scaffolding of a European Qualifications Framework (EQF) that, while generally compatible to what was developed for higher education under the Bologna Process, is not to be confused with

the Bologna structure (the Framework of Qualifications of the European Higher Education Area). A total of 39 countries had ratified the agreement as of 2007.⁵

- **The Sorbonne Declaration** of 1998, at which the education ministers of the four largest countries in the European Union (France, Germany, Italy, and the United Kingdom) agreed to design and lead a broad and cooperative reconstruction of the basic terms of higher education to create a common European degree structure, to remove barriers to cross-national mobility, and to take advantage of the potential of university systems across the Continent. In its broad rhetoric of frameworks, cycles, credits, flexibility, shared culture, and transparent “readability” of processes and standards, the Sorbonne Declaration contains most of the seeds of Bologna.

How did the Europeans get from these steps to Bologna? Our reading proposes a French connection through *Pour un modèle européen d'enseignement supérieur* (Attali *et al* 1998). One could say that Jacques Attali and Claude Allègre, the French Minister of Education at the time, were the joint Godfathers of Bologna since this Commission report, requested by Allègre, outgrew its original boundaries of a call for reform of the French system to a more embracing template for a European alternative to the U.S. approach to higher education. Yes, it starts with a French critique of the French system as historically preparing civil servants, i.e. serving the interests of the state instead of the futures of students. But one can see where the economist who wrote *Noise: the Political Economy of Music* (Attali 1986), who posits an analogy between music as structuring noise and politics as structuring community would look out at the higher education of all European nations and hear noise that needed to be structured. Attali's influence on his commission colleagues must have been considerable, for they produced a prophetic document, wholly appropriate to one of the ways he sees music—as prophecy—because “its style and economic organization are ahead of the rest of society” (Attali 1986, p. 11). So the report imagines the establishment of global model of higher education to match a global economy without borders, and is particularly sensitive to what became the “social dimension” of Bologna in the sense of participation for disadvantaged groups in the benefits of new technologies. On the other side of this social coin, the report sees current danger in the children of elites becoming isolated or disconnected (*coupés*) from other social groups (p. 7), an observation one rarely reads in U.S. analyses or pronouncements on equity issues.

The dual nature of the French higher education system—universities and *grandes écoles*—which, the report observes, does not exist in any other country in Europe, continues in the face of market forces that argue for a more efficient, egalitarian, and embracing vision. And from this French reference point, Attali and company launch into the case for pan-European reform:

⁵That still leaves seven Bologna participants which had *not* ratified the recognition agreement a decade later The Lisbon agreement is the only legal document attached to Bologna at all. The U.S. signed the document but has never ratified it.

“[France] can no longer follow a rigid course different from those of its European partners or other dimensions of the [new] structure of Europe: one cannot have a free flow of goods, capital, people, ideas, allowing everyone to practice their avocation where or as they intend and simultaneously maintain a situation where it is not even possible to compare the value of credentials awarded by universities in the member countries of the European Union so that individuals could practice those avocations. It makes no sense to have a European labor market without a European education [market].” (p. 8; author’s translation, with some license)

Then comes the foundation sentence for the Sorbonne and Bologna declarations: “Without *standardizing* their systems, European countries must find a way to *harmonize* their courses and degrees and define a specifically *European* model, one subservient to neither bureaucracies nor the market.” (p. 8; again, author’s translation, with license). In numbers there is strength, the report continues, and only Europe together will have the mass and stature both to control globalization and promote the values of the continent on which the first universities of modern times were established. Harmonization, the report later argues, demands a politics of European higher education, one that preserves the specific traditions of universities on the continent while encouraging all of them to enhance innovation, mobility, and competition. For that, Europe needs to be less of an established lighthouse that merely symbolizes the unity of higher education systems and more of a system in which one witnesses convergence of degrees and courses across all institutions. (p. 23) This is more than a rhetorical flourish.

In fact, it served Allègre’s purpose on the occasion of celebrating the 800th anniversary of the founding of the Sorbonne to bring the key ministers together to draft a resolution for the reform of European higher education that he could invoke as a reflexive lever both to reform the French system and to “pre-empt. . . ambitions of the European Commission [for a uniform system of degrees across the EU] and establish a cultural counterbalance to the dominance of economic motives in the European Union” (Witte 2006, p. 125). The Italian education minister at the time, Luigi Berlinguer, offered to host a conference in 1999 at the oldest university in Europe to build on the Sorbonne Declaration, but underestimated enthusiasm for what became

- **The Bologna Declaration** itself, in which 29 countries’ ministers of education agreed to a process that would bring their higher education systems into greater harmony and transparency in matters of degree cycles, quality assurance practices, and credit mechanisms so as to realize mutual recognition of course work and degrees and hence enable their students to move more easily through the borderless economic landscape of Europe. Such actions, they reasoned, would create a European Higher Education Area that would also be attractive to students from other continents. The ministers set a goal of completing all the revisions to existing systems so that they were singing in the same key—though not necessarily with the same melodic line—by 2010. It is important to note that the Bologna Declaration was a ministerial level statement—with no legal

obligations attached—and that each country’s national legislature subsequently could choose to revise the laws and regulations under which its higher education system operated so as to realize the objectives agreed to.⁶ Some of these legislative revisions did not occur until 2005 (Poland and Portugal) or 2006 (Sweden); and some have yet to take place.⁷ The ministers agreed to meet every other year to review progress and adjust the dimensions and boundaries of core processes, add new emphases, and welcome new partners. These meetings have taken place in Prague (2001), Berlin (2003), Bergen (2005), and London (2007). The next meeting is scheduled for Leuven and Louvain, Belgium in 2009.

- **The Lisbon Strategy** of 2000 (reconfigured and “restarted” in 2005)—not part of the Bologna Process, but intersecting it. The second trip to Lisbon was like the first in that its purposes transcended higher education on a more grandiose plain. Think of it as 15 countries that then constituted the European Union, in the face of declining economic clout, setting out a strategy for lifelong learning and workforce development so that their aging labor forces could be renewed and Europe become, also by 2010, “the most competitive and the most dynamic knowledge-based economy in the world.”⁸ While the lifelong learning objectives of Lisbon 2000 have been embraced by the Bologna Process, the Lisbon agenda placed major emphases on innovations in economic, environmental and social development that go well beyond the role of formal education in their respective societies. And while Lisbon’s “dynamic economy” orientation sought increases in the R&D portions of national budgets and looked to universities as key research contributors, Bologna is concerned far more with the distribution—than the generation—of knowledge, and improving the research capacity and output of European universities would be a diversion from its principal objectives and efforts. In matters of education, the Lisbon Strategy focused not on higher education, rather on reducing school drop-out rates, increasing upper secondary school graduation rates, and improving literacy levels among teenagers. Sound familiar? As in the case of Bologna, the Lisbon 2010 target is not likely to be met, but much is being learned along the way. Could the Bologna Process have expanded without the Lisbon Strategy, and, in matters of education, could the Lisbon agenda exist without a component that had progressed as far as Bologna by the time Lisbon had to be revised in 2005, thus setting an example

⁶Hackl (2001) describes the Bologna agreement as “public international soft law” (p. 28).

⁷For a spreadsheet including the major higher education legislation in each participating country through 2007, click on www.ihep.org/assets/files/countrystatus2007.pdf

⁸Using a combination of higher education attainment and such factors as corporate investment in R&D, creativity of scientific community, and internet penetration rates, the World Economic Forum’s 2004–05 “competitiveness” rankings placed the then 25 countries of the EU, collectively, on the 15th rung. The U.S. was ranked second, something you usually don’t hear about in the complaints about our slippage in the world.

for other components? These are matters of dispute among European analysts concerned with the implementation of policy, some of whom see in both Bologna and Lisbon new forms of governance (Veiga and Amaral 2006; Nóvoa and deJong-Lambert 2003). For U.S. readers seeking knowledge of Bologna, these are secondary issues, and while this document highlights points of both tension and reinforcement between Lisbon and Bologna, our focus is on the latter.

- **In Prague** (2001), and following the Lisbon 2000 example, lifelong learning was added to the major policy themes of Bologna, and momentum toward a full diffusion of quality assurance procedures was established. Students, a core stakeholder group, were solicited to participate on the committees and in the processes of reshaping higher education (we will note that student groups enthusiastically took up this invitation). Students urged the inclusion of a “social dimensions” component of the Bologna agenda, though that took time to develop. Looking around at the formalized ferment engendered by the original declaration, the ministers saw that the import of Bologna had now filtered through governments, academic authorities, and faculties.
- **In Berlin** (2003). The Berlin Communique was more specific with respect to expansion of the existing “action lines” of the Bologna Process that had been previously promulgated. Establishing compatible qualifications frameworks for degrees at both European and national levels became a core tool. The general outlines of a Qualifications Framework for the European Higher Education Area were agreed to, and sent off to committees for elaboration. The two-cycle degree (undergraduate/graduate) of the original declaration became three (a Bachelor’s/Master’s core, plus doctoral education—in order not to lose the connection between higher education and research). With these changes, the objectives of degree recognition and mobility of students across borders were fortified. Lifelong learning (and system flexibility to accommodate it) was reenforced as a goal of the process, and more vigilant quality assurance (what we call accreditation processes, but in Europe a more far reaching practice) was highlighted. The communique emanating from the Berlin meeting also make it clear that the expanding ECTS credit system was to be used for purposes of accumulation as well as transfer.
- **In Bergen** (2005) the most significant additions to the portfolio of Bologna objectives were focused on the development and recognition of joint degrees (involving institutions from more than one country), the reinforcement of the flexibility theme, and the establishment of procedures for the assessment and recognition of prior learning (whether informal, non-formal, or formal, and something we do in our external degree institutions such as Empire State in New York, Charter Oak in Connecticut, and Thomas Edison in New Jersey, and for which Europeans give us great credit). The Bergen meeting also witnessed the full articulation of the “social dimension” theme of the

Bologna Process, that is, enhanced attention to students from disadvantaged groups. While each country has its own definition of “disadvantaged groups,” the most common features of the European definitions include children of the working class, geographically isolated (principally rural) populations, students with disabilities, and children of immigrants.

- **In London (2007)**, the ministers took action to bolster standards in accreditation and quality assurance by endorsing the establishment of a formal “register” of Quality Assurance Agencies (now a reality), spent considerable energy on steps to promote the attractiveness of the European Higher Education Area in a global market, pushed lagging member countries to complete their national qualification frameworks, and urged better collection of data related to Bologna processes. While pressing forward on the portfolio of objectives initially targeted for completion by 2010, there was no doubt in the official communiqués following the London meeting that these developments would continue well beyond 2010, and that considerable improvement in data systems for tracking and reporting student academic histories is necessary to mark progress and change across all the reform lines of Bologna.

Along the way, associations of universities, disciplinary and professional associations, conferences of higher education administrators, student organizations, and other stakeholder groups have held hundreds of meetings and seminars and have issued even more hundreds of declarations, studies, reports, and proposals that have fed, modified, and expanded the evolution of the original Bologna design. Among organizations and formal stakeholder groups, everybody has had something to say and contribute, though, as will be pointed out in Section 12 below, the penetration of Bologna practices among faculty has yet to reach a critical mass.

1.2 The Organization of Bologna

As noted, Bologna was taken up largely outside government structures, even in countries with long traditions of central control of education. Granted, the national ministers of education, working as a group, oversaw the agenda. But to make sure that everybody could and would contribute, and, in fact, expand and modify the agenda, they created a consultative body, known as the Bologna Follow-Up Group (BFUG), to meet roughly twice a year and develop the program of work for the two years between ministerial conferences. That program has included numerous seminars, sponsored research, proposal developments, and official guidances (British Council 2006), many of which will be cited in the pages that follow.

Though the case, BFUG, is singular, this body divides itself into many thematic working groups. For example, the work program for 2007-2009 involves working groups and seminars on:

- mobility (country-to-country for both students and academic staff)
- ECTS (credits) and learning outcomes

- student employability
- recognition of credentials
- qualifications frameworks
- lifelong learning
- quality assurance
- third cycle—doctoral studies
- social dimension—widening access
- global dimension—European Higher Education Area relations with the rest of the world
- data collection
- stocktaking, and
- what happens beyond 2010.

Every participating country has a member on the core BFUG, as does the European Commission. In addition, eight major organizational “Consultative Members” participate:

- European University Association (EUA)
- European Association of Institutions in Higher Education (EURASHE)
- European Students Union (ESU)
- European Association for Quality Assurance in Higher Education (ENQA)
- Council of Europe⁹
- European Centre for Higher Education (UNESCO CEPES)
- Education International (represents teachers’ unions and professional organizations)
- BUSINESSEUROPE (organization of national industrial federations)

and others may be added from time to time.

This broad based configuration of actors and stakeholders, working outside governments—in fact, leading governments—is ideally suited to produce a “zone of mutual trust” (ZMT), a telling term first used in the European vocational sector to address accounting systems for the accumulation and transfer of credits (Coles and Oates 2005).

In higher education, a ZMT is established by a series of agreements on the “delivery, recognition and evaluation” of “learning outcomes (knowledge, skills and competences).” It can be formal or informal “according to the mutual confidence and needs of the stakeholders involved. The details of the agreements between organisations can be used to build a framework of recognition based on levels of . . . learning” (Coles and Oates 2005, frontispiece). You can’t impose a ZMT; you can’t regulate it into existence: it’s got to come from people who

⁹The Council of Europe, founded in 1949, involves 47 European countries, and is concerned principally with human rights, discrimination, organized crime and corruption, and democratic stability. It is to be distinguished from the European Commission, the executive body for the 27 country European Union.

reach out to understand and shape criteria for education and training and arrangements for delivering that knowledge and ensuring its quality. As we will note, Bologna, with its core action lines, is well on its way to establishing a full zone of mutual trust, though, depending on the issue, the bandwidth of that zone varies.

1.3 Background for Judging What We are Looking At

Types of Institutions of Higher Education (IHEs)

No matter how each European higher education system presents itself, there are basically four kinds of public institutions in play on the field of what is known, internationally, as “tertiary” education:

- Universities, which award doctoral degrees, conduct research as a core activity, and offer programs in traditional academic fields, some occupationally-oriented fields (e.g. business), and those fields which are regulated by national (but not pan-European) licensure or certification requirements (e.g. Law, Medicine, Engineering, Architecture).
- Occupationally-oriented institutions, which do not offer doctoral degrees, do not conduct research as a core activity, do not usually offer degrees in traditional academic fields, rather offer Bachelor’s and Master’s degrees in fields such as tourism and hospitality management, biotechnology, design, management information systems, social work, and some of the regulated professional fields. When a system includes these institutions as a distinct class, it is called a “binary system.” These institutions are sometimes termed “polytechnics” (Portugal), *högskolen* (Sweden), *Fachhochschulen* (Germany and Austria), *hogescholen* (the Netherlands), and Institutes of Technology (Ireland). This essay will use the European label, “of applied sciences,” to describe these institutions. Indeed, we have hundreds of them in the U.S., colleges in which the vast majority of enrollments and degrees are in occupationally-oriented fields and in which the Master’s degree is the highest offering.
- Free-standing specialty institutions, many of which offer Master’s and doctoral degrees, and some of which offer *only* Master’s and doctoral degrees (e.g. the 18 *grands établissements* in France). There are free standing medical schools (e.g. Innsbruck in Austria), degree-granting music conservatories (e.g. the Royal Academy of Music in Stockholm), and institutes of fine arts, dance, and theater (more prominent on the European landscape than in the U.S.). Most (but not all) of the institutions specializing in the fine, performing, and applied arts are on the “south side” of the binary line, so to speak, i.e. they are classified with the polytechnics, the *hogescholen* and other “applied science” institutions (even though they are specialized).

- Institutions offering programs that can overlap the lower levels of tertiary education and the upper levels of secondary education. “Further Education” institutions in England and Scotland illustrate this phenomenon, as do the *Ciclos Superiores* in Spain. While designed for what we would call continuing education and with no admissions requirements, they award certificates and diplomas that, with assessment, allow students to transfer into universities in ways analogous to those in which our community college students move into four-year institutions.

A European national higher education system can call itself “unitary” (as opposed to “binary”), and still contain all four types of schools—and some include hybrid institutions that span upper secondary/postsecondary/university levels (found principally in the UK, though the German *Berufsakademien*, originally postsecondary vocational schools, but now with Bachelor’s degree programs offered on contract with specific employers on a cooperative education model, also illustrate this phenomenon). Some disciplines and programs are offered in more than one type of institution, depending on national system. The education of teachers for elementary and secondary schools is a prime example. What we in the U.S. would describe as liberal arts colleges, awarding only Bachelor’s degrees in arts and sciences fields, are very rare in Europe.¹⁰

Where private institutions have entered the tertiary domain (principally as for-profit institutions in Eastern Europe, and in Portugal, where their share of enrollments is shrinking), the typology of institutions becomes more complex. But private higher education is otherwise a minor phenomenon in Bologna territory. European education also includes non degree-granting vocational trade schools comparable to those in the U.S. that offer certificates. While we classify these institutions as “postsecondary,” they are not considered “tertiary” education in Europe, and are not part of the Bologna universe.

Student Paths and Demographics

In many European systems of primary and secondary education, students need a Global Positioning Device just to figure out where they are sitting. There are lower secondary schools and upper secondary schools, and multiple types of each, with vocational pathways (white collar and blue collar), general pathways, and academic pathways running through them. Connections between paths are sometimes possible, sometimes not. We would call this a tracking system, but to an outside observer, the diagrams of these tracks bear some resemblance to Jackson Pollock’s fractal paintings: ultimately there is a different kind of order in apparent chaos, but it takes concentration to determine where that order lies.

¹⁰The three “university colleges” in the Netherlands (at Utrecht, Roosevelt Academy, and Maastricht), targeting foreign students and domestic students from international and bilingual secondary schools, represent an acknowledged revival of classic arts and sciences education. With support from the European Commission, this core group of institutions in the Netherlands is planning an expansion to a European network of similar schools.

In most of the 46 Bologna countries, the principal route to entering degree-granting institutions is determined by high school leaving examinations. The best known of these to U.S. audiences are the A-levels in the United Kingdom, the *Baccalauréat* in France, and the *Abitur* in Germany (though each of the 16 German states—or *Länder*—has its own version of the *Abitur*). In general, for traditional-age students coming out of upper secondary schools, pass the exam(s) and you can enter either universities or applied science institutions. There are variations in which secondary school grade point average is weighted more heavily than the examination (e.g. Portugal, where the admissions process is centralized), or in which the examination score becomes part of the student's grade point average, hence, where one's choice is thus limited by performance (Germany). And there are other cases, e.g. the Czech Republic, where admission itself is limited by the capacity of the system (some 40 percent of applicants in the Czech Republic are rejected on those grounds). Admission to medical programs, as one might expect, is always a matter of *numerus clauses*. In countries with "short-cycle" degrees (analogous to U.S. associate's degrees), entrance to the degree program is usually not dependent on school leaving examinations, but there are cases where entrance to the short-cycle program is competitive, e.g. the *Instituts Universitaire de Technologie* (IUT) programs in France, where applicant must possess either the *Baccalauréat* or an equivalent diploma.

Since, in most European systems, students enter a specific major program (e.g. anthropology, business, mechanical engineering),¹¹ they may encounter a cap on enrollment in their preferred field. Depending on country and field, admission to that program may be determined by exam score and/or lottery (or, in the UK, by something called "tariff points," the explanation of which is best set aside). Medicine is always a case of selection or combination of selection and lottery; music requires an audition; fine arts, a portfolio. For applied science institutions, labor market conditions and projections may also determine caps, and programs such as Tourism and Hospitality Management are usually designed and adjusted on the basis of feedback of representatives and experts from the industry in question. In all this, and contrary to conventional wisdom in the U.S., students in Europe can change majors (in some countries and universities more easily than others): Gillian Mackintosh, Deputy Academic Registrar of Aberdeen University in Scotland reports a 40 percent change of major rate among undergraduates (in the U.S., it's about 50 percent, i.e. there is not much difference).

There are other routes into the higher education systems of Europe, and the Bologna Process has inspired countries to develop multiple paths, e.g. from vocational secondary schools to applied science institutions of higher education, and for older beginning students, through

¹¹Sweden is a notable exception, with an exploratory phase of the bachelor's program during which declaration and entry to a major program is not mandatory. Uppsala University recommends 60 credits (one-third of the Bachelor's degree) to be earned outside the major program, with a minimum of 20 credits per year (Uppsala Universitet 2006). The Netherlands' universities offer a major/minor structure, so students are not locked wholly into one field. And many degree programs in other Bologna countries include space for electives (some of them recommended) outside the students' chosen field.

recognition of prior learning in non-formal settings and bridge programs (we will talk about these options later in this document). This inspiration emerges from both the flexibility objectives of Bologna and its increasing emphasis on the “social dimension” of participation in higher education, i.e. increasing access. Whether these alternative routes actually work is considered in Section 9 below.

The average age at which students enter higher education varies from 19 (France) to 25 (Sweden).¹² In Germany and Austria, 18 year-old males are required to perform six to 12 months of either military or civil service, and that obviously delays entrance to higher education.¹³ Age of entrance also differs by field, for example, in music one finds both prodigies who, as Esther Tomasi-Fumics of the University of Music and Performing Arts in Vienna notes, are placed in preparatory programs first, and those entering music education programs who, at the Royal Academy of Music in Stockholm, must audition not only for performance but also for teaching potential (the average age at entrance to this program is 21). It will not surprise U.S. readers that the age distribution of European students is older in the applied science institutions and among part-timers. Some demographics are universal.

Status of European Systems Prior to Bologna

Not everybody started from the same pole position to realize the initial and evolving objectives of the Bologna Process, and some countries’ higher education systems had undergone dramatic changes of their own in the 1990s, for example:

- Finland expanded its higher education system by a *third*, creating a new sector of 11 polytechnic institutions known as AMKs. For the U.S. to engage in a similar expansion would require the creation of about 600 new bachelor’s degree-granting schools, and the addition of 3 million undergraduate students.
- Poland saw the birth of 300 private institutions of higher education between 1990 and 2001, with enrollment in this sector growing from 29 thousand to nearly 600 thousand (roughly 30 percent of total higher education enrollments) in that period. Some of these institutions were small; some were very specialized; many were located in comparatively isolated areas of the country.

¹² Orr, Schnitzer, and Frackmann 2008 (*Eurostudent III*), p. 25. Some of these data are artifacts of the national surveys from which they are derived and reported. The Swedish figure is probably high because the survey includes the special class of single course students who are recruited in their 20s. The UK figures are reported separately for England/Wales at nearly 26, and Scotland at 22.

¹³The average age of entry in Germany will fall after 2012, as the pre-college system moves from 13 years to 12. What otherwise might have been a decline in the entering postsecondary population due to a flattening of the baby boom curve will remain stable to 2020. In the *Eurostudent III* survey (p. 25) one notes a distinct spread in the average age of entering males and females in Austria, but not in Germany.

Less dramatic experiments and steps toward what became Bologna ideals were underway in other countries¹⁴ and in professional disciplines. Most of these might have withered without the visible direction, broad stakeholder involvement, and ferment of Bologna dynamics. The 2005 evaluation of the Scottish Credit and Qualifications Framework introduced in 2001 used the concept of “additionality” to highlight this phenomenon, and Neave (2002) offers “consciousness-raising” and “mobilisation [sic]” to describe analogous Bologna effects. That is, we should always be asking the extent to which Bologna added to what was already happening, and whether it matters that participants knew all the details of Bologna if they were already living analogues to those details. For national systems that were “stuck,” as Jurgen Enders of the Center for Higher Education Policy Studies in the Netherlands noted, Bologna was “an icebreaker, a discourse” that created educational realities within “an acceptable range of difference.” In this broader discourse, Bologna played a facilitative role—not the cause or origin but the platform for innovation. As Johanna Witte of the Bavarian State Institute for Higher Education Research and Planning in Munich puts it, both Bologna initiatives and those independent of Bologna within national higher education systems came to “fall in the same corridor” and “the role of Bologna appears to have been to sustain, frame, and amplify, but not to generate.” (Witte 2008, p. 88).

Special consideration of large scale changes should be marked for countries in the former sphere of the former Soviet Union. As Pavel Zgaga of the University of Ljubljana in Slovenia remarked, “when the dictator disappears, everything becomes problematic.” That is, students and faculty moved from a position in which everything was decided for them by a central authority to one in which nothing was pre-determined. Whole societies were walking around in a daze after the dissolution of the Iron Curtain in 1989, seeking to find their footing amidst vacuums of organization and protocols. New institutions and rules had to be created, and higher education was swept up in the dynamics of this environment.

Credit systems existed in a number of countries, e.g. Scotland, Spain, Sweden, Finland and the Netherlands before Bologna, though based on different units of analysis (e.g. Spanish credits were based on faculty teaching hours, not student effort hours; Finnish credits were based on a “study week,” not hours). The European Credit Transfer System (ECTS) was in use broadly in the 1990s, but only for purposes of transfer for students from one country studying in another country under the rubrics of the ERASMUS student mobility programs. In general, ECTS was not used for purposes of credit *accumulation* until the 2003 Bologna ministers meeting in Berlin. While some of the pre-Bologna credit systems are still in use, all of them translate their metrics

¹⁴Starting in 1998, Germany, for example, set up the structures and labels for what became the Bologna Bachelor’s and Master’s degrees, but left it up to individual institutions to add these to the existing system. Alesi, Bürger, Kehm, and Teichler (2005) point out that Germany got into the reform business in the later 1990s partly because its degrees were not being widely recognized in other countries, partly because authorities recognized the connection between unstructured curricular programs and excessive time-to-degree, partly because its postsecondary participation rate was embarrassingly low, and partly as a by-product of lingering difficult aspects of reunification.

into ECTS.¹⁵ That credits are attached to courses with set subject boundaries is second nature to the U.S. system, but the classical model of European university education was not presented in course modules with taxonomies, prerequisites, credits, and sequences. With the advent of Bologna, just about everything is modularized, but only two-thirds of higher education institutions had adopted ECTS as an accumulation currency as of 2006, even though ECTS is one of the pillars of the European Higher Education Area.

1.4 Degree Cycles and Other Factors of the Bologna Landscape

One of the more prominent features of the Bologna Process portfolio was the agreement of participants to move from an oftentimes incomprehensible melange of degrees to a familiar and common three-degree hierarchy (Bachelor's, Master's, and Doctorate). Most of the U.S. commentary on the Bologna Process to date has been concerned with assessing these new degree-cycles, particularly for the benefit of U.S. graduate school deans and departmental admissions committees evaluating the qualifications of European university graduates for entrance to doctoral and graduate professional programs here.¹⁶ The interest of this essay in degree-cycles and particular degree programs is driven by other considerations. The reader will notice attention to:

- The Master's degree because it may well become the standard for classic university completion in European countries (in Switzerland, for example, 90 percent of students earning the new 3-year Bachelor's degree in 2005/06 continued to the new 2-year Master's degree (Enders *et al.* 2007), and because of an explosion of new Master's degree programs offered in English across the European landscape¹⁷ as a mechanism of attracting students from other countries (e.g. China and India) to European universities. Quite frankly, the author did not anticipate that the Master's degree would turn out to be as important in this analysis.
- Degree programs in medicine as representative of professional/licensure-oriented courses of study that show some intriguing departures in traditional form, and, more significantly, evidence changes in curriculum that are revealing of what an atmosphere of reform can encourage.

¹⁵One notable exception is that of the UK, which will finalize and implement its own translatable credit system by September 2009.

¹⁶The online *World Education News and Reviews* regularly presents portraits of country education systems, including their adaptations to the Bologna Process, and the National Association of Foreign Student Advisors provides advice to members on the changed features of European students coming to the United States for study.

¹⁷Wächter and Maiworm (2008) report a doubling in the number of these programs since 2003.

- Degree programs in the performing arts, particularly music, because they offer the best illustration of how qualification frameworks can be established and directly connected to the assignment of credits. The performing arts are probably more transparent than other disciplinary areas when it comes to articulating what students should be able to demonstrate and at what level of competence, for determining how much time it takes students to prepare for that demonstration, and for translating that time into credits. The music programs of Europe organized themselves in Project Polifonia to spell out guidelines for this process, and we will visit that project—more than once—later in this document.
- What Europeans call “short-cycle” degrees, analogous to what we call Associate’s degrees, except delivered principally by institutions that also offer Bachelor’s degrees, and not principally, as in the U.S., by a separate class of sub-baccalaureate institutions (community colleges). Some of these credentials have been around for a while (for example, the two-year diplomas offered by the French IUTs), others (for example, the UK’s Foundation degrees) are relatively recent phenomena, and still others (the Netherlands’ Associate Degrees) are in a trial phase. Under Bologna, they become part of a new landscape of connecting credentials, providing alternative routes into the higher education world.

Apart from degree-related issues, this monograph pays notable attention to part-time status because it is a key mechanism of flexibility, one of the ways in which more students can participate in higher education more effectively. Increasing flexibility is one of the goals of Bologna, particularly after the visibility of lifelong learning was enhanced in 2003. Yet when one looks across national higher education systems, part-time status is a phenomenon in and out of the shadows. It is very prominent in the United Kingdom (and historically so). Some 53 percent of Poland’s public institution students are now part-time, as are 71 percent of its private institution students. The German central ministry does not track the volume of part-time students, but some universities and *Fachhochschulen* are beginning to offer separate provisions for part-time. Sweden has a separate track for students taking one course at a time (*kursstudenter*) who constitute about 25 percent of all undergraduates. There are differences, too, in the definition of part-time and in part-time students’ financing of their higher education. At the University of Karlsruhe in Germany, for example, part-time means half-time, with the students paying tuition on a per-course basis. In Poland, part-time (“extramural”) means less than 80 percent time but more than 60 percent, and all part-time students pay tuition (whereas full-time students do not).¹⁸ In contrast, low-income and unemployed students in Scotland who are studying for first degrees and whose programs total less than 16 hours/week of classes receive fee waivers.

¹⁸ Data on part-time students in Poland are drawn from Dańbrowa-Szeffler, M. and Jabłocka-Prysocka, J. 2006. *OECD Thematic Review of Tertiary Education: Country Background Report for Poland*, p. 25.

Our European colleagues have sought to do right by the student by reinvigorating the most basic and common role of institutions of higher education in every society and economy on this globe: the distribution of knowledge and development of skills to apply that knowledge. Some institutions also generate and exploit knowledge; some also preserve knowledge. But all of them distribute and develop—which means that content counts. Passing out degrees without content and performance means nothing. That’s a clear message at every level of the Bologna Process, and it starts with what are called “qualification frameworks.” As the Bologna Follow-up Group assessed the 2008 status of the major action lines of reform, it marked, in italics:

. . .the degree structure and qualifications frameworks, recognition and quality assurance are those that have led to structural reforms and to the institutionalization of the Bologna Process. (BFUG 2008, p. 5)

As the italics imply, the core elements of the Bologna Process are tightly intertwined. It is very difficult to pry them out, one by one—

- qualification frameworks, both pan-European and national;
- “Tuning” curriculum and performance criteria at the level of the disciplines;
- the European credit system;
- documentation of student attainment in Diploma Supplements;
- quality assurance; and
- comparable degree structures

—and treat them in isolation. If, for example, student mobility is an objective then one needs a recognition system (we would translate that as a transparent and reliable credit transfer policy) hence Qualification Frameworks, a common credit system, Quality Assurance, and comparable degree structures. All these, under Bologna, became supra-national phenomena, and all are glued together in what this monograph calls an “accountability loop.” For U.S. readers, treating the stops on this loop one-by-one may be the best strategy. So we begin where we should—at a macro level.

PART II: THE ACCOUNTABILITY LOOP

2. The Core of Bologna, Line I: Qualification Frameworks

What does each level of degree we award (associate’s, bachelor’s, master’s, doctoral) mean? What does it represent in terms of student learning? What does a degree in a particular field at each of those levels mean, and what does it represent in terms of student learning? These sound like common sense questions that have obvious and public answers. But obvious and public answers are not easily available, and that’s what some of our recent arguments about accountability in the U.S. have been about. Furthermore, the U.S. arguments tend to stagnate

on process issues, whereas, under Bologna, these questions are about content. At their meeting in Berlin in 2003, the European Education Ministers were very clear about the conceptual elements with which degrees should be described: learning outcomes, level of challenge, “competences,” and student workload. Our first guidance for answering these questions about the meaning of degrees can best be found in the struggles of our European colleagues to create “qualification frameworks.”

There are three (3) strata of qualification frameworks in different stages of development in the European Higher Education Area.¹⁹ Only one, the most general, has been universally agreed to and promulgated; the others are in process, though the most specific of these has evidenced the greatest advance and is the level from which we will take most of our lessons for the United States.

- The transnational Framework for Qualifications of the European Higher Education Area (QFEHEA) at the core of which lie what are known as the “Dublin Descriptors” that set out definitions for a Bachelor’s degree, a Master’s degree, and a doctoral degree so that the reader instantly sees the difference in levels of competence students earning those degrees exhibit. Time and again, we will make sure the reader does not confuse Bologna’s QFEHEA with Lisbon’s European Qualifications Framework (EQF).
- National Qualifications Frameworks (NQFs). In theory, one would expect each country’s higher education system to take the Framework for Qualifications of the European Higher Education Area and develop its own compatible version, more detailed, taking into account the peculiar varieties of institutions in that system and their historical missions and commitments, and, where applicable, including “intermediate” qualifications between the three degrees. In practice, that’s not exactly the way it happened. The Republic of Ireland and Scotland developed qualifications frameworks in the years just prior to the Bologna Declaration, and from which other countries later took their cues. Denmark (2003, with a second edition in 2008) and England/Wales/Northern Ireland (2001) did so soon after Bologna, and before the promulgation of the Dublin Descriptors. Other countries did not begin to talk about the concept and its elaboration until 2002. In a few notable cases, e.g. Sweden’s Higher Education Ordinance of 2006, the national legislature stepped in and wrote the framework itself (to be sure, with a broad process of consultation). France chose to undertake a major inventory and analysis of the myriad of credentials offered in its higher education system as a prolegomena to writing a formal qualifications framework, and that process is only now

¹⁹It is important to distinguish the 8-level European Qualifications Framework (EQF) embraced by the Lisbon Strategy, applicable to all levels of education but only among the 27 countries of the European Union, from the 3-level higher education framework applicable to the 46 countries of the Bologna Process described here. The titles of these frameworks are similar, hence sometimes confusing; the realities are complementary but differ in complexity at tertiary education levels.

nearing completion. As the Bologna ministers acknowledged at their London meeting in 2007, the higher education systems of the member states have a way to go.

- **Disciplinary/field Qualifications Frameworks.** This level of specifying expectations for student learning and competence has received the most attention and effort at the institutional level, where, following in the footsteps of the *Magna Charta Universitatum* of 1988,²⁰ Bologna has always held autonomy as a mantra. Even before the broad discussion of national qualifications frameworks began, the Tuning Project, designed to help the disciplines articulate outlines and benchmarks for subject specific knowledge and generic skills and competencies expected at the summative moment of each level of study, was well underway (outside of Bologna, and under European Commission sponsorship) in nine disciplines—and with others in the queue.

At the transnational and national planes, credible qualifications frameworks must describe enough levels of attainment, clearly demarcated, to account for both current and intended realities (a delicate balancing act in itself given the organizations that have a stake in reaffirming the *status quo*). The transnational framework, in this case, was designed to move everybody onto a three-cycle scaffolding, but with enough space for national systems to reflect their idiosyncrasies and to connect their formal higher education enterprise with both lower levels of formal education and non-formal providers of occupational education and training. The European attempt is worth our serious consideration in the U.S. While many states in the U.S. boast curriculum frameworks and benchmarks, they are confined to K-12, and are presented as goals more than guarantees. Statements of the knowledge and competencies students must demonstrate to earn a postsecondary credential may be found at isolated institutions, but you don't see them covering state systems. Yet our European colleagues demonstrate that this type of qualification framework would allow state systems both variations in credentialing and stronger alignments with secondary school qualifications.

2.1 The Framework for Qualifications of the European Higher Education Area (QFEHEA)

It took three years from the initial commitments of Bologna for the most general definition of European higher education credentials to emerge, and another two years to refine even these wide-angle generic markers. Known as the Dublin Descriptors (again, after the city in which the meeting of the minds took place), the refined credentials described in March 2004 were not called bachelor's, master's, and doctoral degrees, rather first cycle, second cycle, and third cycle awards. The terms are important because they respect each country's historical labels and language (e.g. the French first cycle degree is a *licence*, the Danish is a *Candidatus*, the Italian a *Laurea*). By October 2004, the experience of participating countries in reflecting on their existing credentials with an eye toward adjustments for greater harmony lead to an

²⁰ Statement of European University Rectors, available at www.magna-charta.org

extension of the three cycles to a fourth: a way to include what we in the U.S. call sub-baccalaureate credentials, and what the emerging European Higher Education Area labels “short cycle (within the first cycle).”

The Dublin Descriptors for the short cycle, first cycle, and second cycle are presented in Figure 1 on the following page. Think of them as Associate’s, Bachelor’s, and Master’s. The key phrases highlighting the differences in these levels of qualification are found in italics. There are five parallel learning outcome constructs, each of which is ratcheted up across the three award levels:

- the reference points of “knowledge and understanding”;
- the contexts and modes of application of knowledge and understanding;
- fluency in the use of increasingly complex data and information;
- breadth and depth of topics communicated, along with range of audience for that communication; and
- degree of autonomy gained for subsequent learning.

The reader will also note the fading of occupational orientation as one moves up the credential ladder, the emergence of social and ethical dimensions of learning, and the passage from well-defined contexts and problems to more fluid and dynamic contexts and problems. This general and parsimonious description both attracts agreement and allows for subsequent levels of elaboration and variation in both national qualification and disciplinary frameworks. As the *Framework for Higher Education Qualifications in England, Wales and Northern Ireland* (2001) phrases the set of principles that govern such frameworks, “descriptors *exemplify* [ital mine] the outcomes of the main qualification at each level, and demonstrate the nature of change between levels,” while the framework itself “accommodate[s] diversity and innovation.” The 2008 revision of the UK Framework keeps us sharply focused on what these generic descriptors represent: “the *integration* [author’s italics] of various learning experiences resulting from designated and coherent programmes of study” (QAA 2008, p. 2), a very important phrasing because it ties the outcome to the institution awarding the credential.

While we may not describe our associate’s, bachelor’s, and master’s degrees with the same constructs or with the same wide-angle diction as reflected in Figure 1, the point is that 46 countries took these as organizing principles based on learning outcomes and drew lines in cement to separate them clearly.

Figure 1:
**General Qualifications for Credentials in the European Higher Education Area:
Short Cycle, First Cycle, and Second Cycle**

Qualifications that signify completion of the higher education *short cycle* (within the first cycle) are awarded to students who:

- have demonstrated knowledge and understanding in a field of study that builds upon general secondary education and is typically at a level supported by advanced textbooks; such knowledge provides an underpinning for a field of work or vocation, personal development, and further studies to complete the first cycle;
- can apply their knowledge and understanding in occupational contexts;
- have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems;
- can communicate about their understanding, skills and activities, with peers, supervisors and clients; and
- have the learning skills to undertake further studies with some autonomy.

Qualifications that signify completion of the *first cycle* are awarded to students who:

- have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, *whilst* supported by advanced textbooks, *includes some aspects that will be informed by knowledge of the forefront of their field of study*;
- can apply their knowledge and understanding *in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study*;
- have the ability *to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues*;
- can communicate *information, ideas, problems and solutions to both specialists and non-specialist audiences*; and
- *have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.*

Qualifications that signify completion of the *second cycle* are awarded to students who:

- have demonstrated knowledge and understanding *that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context*;
- can apply their knowledge and understanding, *and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study*;
- have the ability *to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements*;
- can communicate *their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously*; and
- have the learning skills to allow them to continue to study *in a manner that may be largely self-directed or autonomous.*

Some of the European national systems do not offer short cycle degrees within the first cycle—yet; some of these systems offer other intermediary credentials,²¹ and in some fields, particularly the regulated professions such as medicine, the first degree granted is a second cycle award. But without this type of learning outcome framework, students themselves would not know what their credential meant in a world without borders. Indeed, as reported in the 2007 *Bologna With Student Eyes* (ESU 2007), more than half student respondents endorsed qualification frameworks as facilitating the recognition of credentials both internally and across borders, creating more transparency as to what their degrees were about, demonstrating the possibilities of learning paths and hence enhancing access (ESU 2007, p. 59). Evidently, the student-centered scaffolding is resonating with its intended constituency.

2.2 What do *National Qualifications Frameworks (NQFs)* Look Like?

The development and status of national qualifications frameworks have been a continuing sources of concern in the history of the Bologna Process. In the judgment of this research, only six countries (Ireland, Scotland, UK, Germany, France, and Denmark) had statements, structures, and processes finalized and in place by 2008, with The Netherlands on the cusp of completion.²² The Bologna Follow-up Group anticipates that most national QFs will not be fully articulated and self-certified until after 2010, principally because much has yet to be learned about learning outcomes and “the development of curricula based on learning outcomes” (BFUG 2008, p. 4) which, in turn, will affect pedagogy and institutional organization. In other words, even if and when the structures are in place; practice is not.

National qualifications frameworks are, essentially, lagging phenomena, in part because, following the guidance of the Bologna Follow-up Group, they are entangled in bureaucracies, legislatures, and ministries. Figure 2 sets forth the recommendations of the BFUG Working Group on Qualifications Frameworks (2007) steps and responsible parties for NQF development.

²¹For a noted example, the Swedish “diploma” is awarded at a point analogous to 3/4ths of the way to a Bachelor’s degree. If students leave higher education after that point, they do not leave empty-handed, and have at least locked in sufficient attainment that allows them to return to higher education to complete the full Bachelor’s degree at a later point in life.

²²It has been said in more than one Bologna document that Hungary has an NQF, but the evidence is very elusive. The official account of the Hungarian Higher Education Act (Ministry of Education and Culture of the Republic of Hungary 2008. *Higher Education Act*. Budapest: Author) makes no reference to either an NQF or to the QFEHEA. On the other hand, in *Towards Bologna: the Hungarian Universitas Program—Higher Education Reform Project* (Ministry of Education of the Republic of Hungary 2006. Budapest: Author), while making no mention of an NQF, describes the new Bologna cycles and says that “the qualification requirements of bachelor and master programmes are published in a decree [No. 15/2006 (IV.3)] by the minister of education” (p. 8 of unpaginated document). The best we can say, based on a report authored by two staff at the Ministry of Education and Culture (Loboda and Krémó 2008), is that the Ministry has been unhappy with the drafts to date, and has taken steps “for the development of the NQF by 2010” (p. 7).

As the reader instantly observes, this 10-step process, with at least five responsible authorities, is a complex and time-consuming venture. It is no wonder that so few Bologna-participating countries had completed the process by 2007, and that the London ministerial meeting of that year had to highlight this sagging portion of the Bologna structure and urge its participants to move ahead—and soon! Even some countries that had an NQF in place in 2007, as part of their self-certification of compatibility with the Dublin Descriptors of the QFEHEA, left the door open for modifications. For a noted example, the Irish authorities basically said they would review their own system’s rules after observing “new progression arrangements being put in place” in other national qualifications frameworks, then added: “it is anticipated that such a review might take place when at least 20 countries have aligned their national frameworks to the European Framework” (Qualifications Framework Working Group 2007). There are enough subjunctive tones in that statement to delay a review for a decade.

Figure 2. Recommended Steps and Authorities for National QF Development

<u>Step</u>	<u>Responsible Authority</u>
Decision to begin	National body responsible for higher education.
Setting the agenda and purpose	“
Organizing process, identifying stakeholders, setting up an NQF development committee	“:
Design (profile, level structure, level descriptors, credit ranges)	NQF development committee.
Consultation	National discussion and acceptance of design by stakeholders (NQF development committee oversees).
Approval	According to national tradition and law, i.e. by the national ministry, legislature, and/or higher governmental administrative authority
Administrative set-up, i.e. division of tasks of implementation	[not clear who is responsible]
Implementation at institutional program level	Rectors, directors of studies
Inclusion of qualifications in the NQF	External accreditation body (see Section 7.2 below) or a similar validation process
Self-certification of compatibility with the QFEHEA	National body responsible for higher education.

We will now scan through the seven cases of completed or about-to-be-completed NQFs, no two of which offer exactly the same approach, but all of which illustrate the possibilities for state higher education system qualification frameworks in the United States. The cases involve Ireland, Germany, Sweden, the Netherlands, France, Scotland, and the UK. Only four of them (Ireland, Scotland, the UK, and Germany) have reached the final step of NQF development, the self-certification (see p. 185 below). After describing the frameworks, it will be more than

appropriate to ask after the convergence they represent and what students thought about it all. Warning!: some heavy reading ahead.

Ireland

The Republic of Ireland was early to the challenge of setting forth a national qualifications framework through its Qualifications Act of 1999. The framework is not confined to higher education, hence is an example of a comprehensive vertical approach, one also followed by Scotland and England/Wales/Northern Ireland. Ten (10) levels of education, ranging from elementary school to doctoral work, were given definitions in terms of broad outcomes on a grid of Knowledge, Know-How and Skill, and Competence (which, in turn, is divided by ladders of abilities to act in different contexts, ability to exercise autonomy and to contribute to and lead the work of groups, toward auto-didacticism in learning, and insight into self and society). Figure 3 (below) presents an excerpt from this grid (HETAC 2005, Appendix 2) of the postsecondary levels. Attached to each of the levels are distinct credentials (“award types”), each with its own “descriptor.” Figure 4 (below) presents those credentials for the three postsecondary levels in question: a pre-baccalaureate certificate level (6) and two types of Bachelor’s degrees (7 and 8), only one of which provides direct access to Master’s degree programs. As the National Qualifications Authority of Ireland noted, spelling out the criteria of qualifications “brings coherence to the awards system,” in part, by their representation of levels of knowledge, understanding, skill, and application.

We may not agree with the definitions; we may not endorse the different types of awards; we may not agree with the “descriptors” of those awards. That’s not the point. The point is that a national system is setting forth a ladder of progression, with general outlines of what has to happen at each step for students (a) to earn a credential offered at that step, and (b) to move to the next step. The national system then turns to its institutions of education and says: “You fill in the details, modify the descriptors, and make your statements public, and we will provide the forums and technical assistance (on request) to help you do this. You then distribute knowledge and skills and develop competencies in accordance with your public statements, match your assessments to those qualification standards, support your students, and do your best to make sure that they qualify at each level.” Ultimately, benchmarks are laid down, and both institutions and system are judged by them. It will be suggested that what the Irish did at a national level we, in the U.S., can and ought to do in public systems at the state level (see Section 13 below).

Figure 3. Grid of Level Indicators from the Irish National Framework of Qualifications, Levels 6, 7, and 8.

	<u>Level 6</u>	<u>Level 7</u>	<u>Level 8</u>
Knowledge: breadth	Specialized knowledge of a broad area.	Specialized knowledge across a variety of areas.	An understanding of the theories, concepts, and methods pertaining to a field (or fields) of learning.
Knowledge: kind	Some theoretical concepts and abstract thinking with significant underpinning theory.	Recognition of limitations of current knowledge and familiarity with sources of new knowledge. Integration of concepts across a variety of areas.	Detailed knowledge and understanding in one or more specialized areas, some of it at the current boundaries of the field(s).
Know-How & Skill: range	Demonstrate comprehensive range of specialized skills and tools.	Demonstrate specialized technical, creative or conceptual skills and tools across an area of study.	Demonstrate mastery of a complex and specialized area of skills and tools; use and modify advanced skills and tools to conduct closely guided research, professional, or advanced technical activity.
Know-How & Skill: selectivity	Formulate responses to well-defined abstract problems.	Exercise appropriate judgment in planning, design, technical and/or supervisory functions related to products, services, operations or processes.	Exercise appropriate judgment in a number of complex planning, design, technical and/or management functions related to products, services, operations, or processes, including resourcing.

Figure 4. Award-Types and Their Descriptors for Levels 6, 7 and 8 of the Irish National Framework of Qualifications

<u>Award Title</u>	<u>Level</u>	<u>Examples of major differences from previous level</u>	<u>Progression and Transfer</u>
Advanced Certificate	6	[not applicable in this illustration]	Transfer to program leading to a Higher Certificate. Progression to program leading to an Ordinary Bachelor's degree or to an Honors Bachelor's degree.
Higher Certificate	6	Knowledge: kind (significant underpinning theory) Competence: learning to learn (taking initiative to identify and address learning needs)	Transfer to program leading to an Advanced Certificate. Progression to program leading to an Ordinary or Honors Bachelor's degree.
Ordinary Bachelor's degree	7	Knowledge: breadth (specialized across a variety of areas) Competence: context (using diagnostic and creative skills in a range of functions)	Progression to program leading to either an Honors Bachelor's degree, a Higher Diploma, or to a Master's degree
Honors Bachelor's degree	8	Knowledge: kind (detailed in one or more specialized areas) Know-how & Skill (adds criteria of complexity to range and selectivity)	Transfer to program leading to a Higher Diploma. Progression to programs leading to Master's degree or Post-graduate Diploma.
Higher Diploma	8	None. This is basically a second Bachelor's degree, in a different field from the first.	

None of the descriptions of outcomes or degrees refers to nominal time. None of them say that a student is expected to fulfill the conditions of an award in three years, four years, or six years.²³ Their concern is with what students know, understand, and can do to qualify for a credential at a given level. What Ireland has done (and Scotland, Denmark, Germany, and the UK) and a dozen other European countries have in advanced stages of development, is set forth a student-centered scaffolding.

When the National Qualifications Authority for Ireland describes the criteria for ordinary Bachelor's awards, honors Bachelor's awards, and Master's awards in more general—but still criterion referenced—terms, it doesn't take literary exegesis to mark the differences: one moves from “well-established principles” (level 7) to “forefronts” of a field (level 8); from “understanding the limits of knowledge” (level 7) to the more activist “preparation. . .to push back [the] boundaries [of learning]” (level 8); from solving problems “within” a field of study (level 8) to solving them in “new or unfamiliar contexts”(level 9)—to see that each level intensifies challenge in a number of dimensions. One could sharpen those differences, and, indeed, that's a major task both for sanding and polishing existing National Qualification Frameworks and for constructing new NQFs. In a way, too, one can easily imagine why, when European students move from the old “legacy” degree structures to the new cycles, the Master's degree becomes the desired end-point.

Germany

The Germans came later to the qualifications framework task, but that gave them the chance to study early comprehensive qualifications frameworks from Ireland, Scotland, and Denmark, and to choose, instead, a framework confined to the three Bologna tertiary degree cycles, and to produce a more parsimonious statement. Illustrating the broad grounding required for a National Qualifications Framework in most countries, the 2005 German statement (*Qualifikationsrahmen für Deutsche Hochschulabschlüsse*) is a joint production of the national association of university Rectors, the conference of the culture ministers of the German states (the *Länder*), and the national ministry for education and research.

For each of the three principal degree cycles, the framework first indicates the length of the program in terms of credits and enrolled time, preconditions for admission, subsequent educational opportunities, and special rules for recognition of non-formal education by examination. So we know, right away, that a bachelor-level program can require 180, 210, or 240 credits (depending on field) and will last a corresponding 3, 3.5, or 4 years.

²³ In fact, contrary to U.S. rumors, the closest an official Bologna document ever came to specifying a time frame for degrees was indicating that the first cycle degree, the Bachelor's, should consume a *minimum* of three years. For Sweden's higher education system the Bologna cycle degrees are measured in virtual time, not calendar time, e.g. the first cycle degree is expected to take more than four calendar years as a consequence of the time necessary to prepare the Bachelor's thesis or project. Under what the Swedes call “exact time,” a degree is the equivalent of X years of study.

The German framework then sets out general criteria for award of each credential in two configurations (HRK, KMK, and BMBF 2005):

<u>Knowledge and understanding</u>	<u>Ways of demonstrating knowledge</u> (<i>Wissenserschließungen</i>)
Breadth of Knowledge	Instrumental Competences
Depth of Knowledge	Systemic Competences
	Communicative Competences

How are these blanks filled in? Let us take two illustrations that compare bachelor-level and master-level criteria. Figure 5 consists of excerpts from longer statements. One grants that some of the differences in these criteria are subtle, and wonders how they might be rephrased for fields in the fine and performing arts, for example, but the principle of raising the bar of qualification is clear. In the German context, academic programs that have not linked themselves to the National Qualifications Framework will not be accredited by any of the six agencies approved as accreditors by the national accrediting authority (the *Akkreditierungsrat*). The German approach to national qualifications, then, explicitly binds the structure and its reference points to quality assurance.

Figure 5: Excerpts from German National Qualifications Framework Distinguishing Bachelor’s and Master’s Degree-level Knowledge and Competence

Depth of Knowledge:	<p>Bachelor: Possesses a critical understanding of the most important theories, principles and methods of their field, and are capable of deepening their knowledge vertically, horizontally, and laterally.</p> <p>Master: Possesses a wide, detailed, and critical understanding of the latest developments in one or more specialties in their field.</p>
Systemic Competences	<p>Bachelor: Has acquired the competence to derive scientifically-grounded judgments that take social, scientific, and ethical relationships into consideration.</p> <p>Master: Has acquired the competence to make scientifically justified decisions based on incomplete information while considering social, scientific and ethical relationships that result from the application of their knowledge and decisions.</p>

In a 2007 collection of statements by leading German academics on the conditions of higher education under Bologna reforms, this National Qualifications Framework was judged not to enforce standardization, rather to foster creativity by inviting the development of multiple programs, new degrees, and new curricular topics (Hochschulrektorenkonferenz 2008).

Sweden

The 2006 Swedish Ordinance (amending its core Higher Education Act of 1992) reminds us of what governments can do in a way that balances consultation and response to institutions on the one hand, and setting statutory frameworks, on the other. Appendix 2 to the 2006 Ordinance contains the critical elements of a national system of qualifications.²⁴ The following points are notable:

First, the names of degrees count, particularly as they will be translated into other languages (and in Sweden, English is the one required language of translation). The rules read as follows:

“The name of a qualification consists of a qualification as specified in this system of qualifications, and, where relevant, a first or last element or both, indicating the area of specialisation of the qualification,” with some specializations requiring specific labels, e.g. Bachelor of Science in Occupational Therapy, Master of Science in Pharmacy, Graduate Diploma in Psychotherapy.

The institution chooses the preliminary and/or supplementary terms, in both Swedish and English, and has the option to translate the name of the qualification into other languages after consultation with the National Agency for Higher Education (HsV) “concerning the legal status that a translation of a qualification may have in other countries.”

Second, the qualifications for each degree are briefly described as “objectives” under three headings: knowledge and understanding, skills and abilities, and judgment and approach. An independent project requirement is specified, and the qualification description allows the institution to indicate “more precise requirements” within the framework.

At the undergraduate (first) level, the Swedes offer two general credentials: the University Diploma after 120 credits, and the Bachelor’s after 180; two credentials in the Arts parallel to the general credentials; and 40 professional qualifications, e.g. Bachelor of Science in Engineering, Bachelor of Science in Biomedical Laboratory Science, etc. There are some minor differences worth noting across this portfolio:

²⁴All references in this discussion are to the 2006 Ordinance and its Appendix 2, available in English at www.sweden.gov.se/content/1/c6/08/45/66/ae3126e1.pdf

- For the Diploma, an independent project is carried out in the main “field of study, within the framework of the course requirements”; for the Bachelor’s degree, the independent project must be “worth at least 15 credits” in the main “field of study, within the framework of the course requirements.”
- For the general Diplomas and Bachelor’s degree, the language of “knowledge and understanding” refers to “scientific basis of the field” and methods; for Diplomas and Bachelor’s degrees in the Arts, the language of “knowledge and understanding” refers to the “practical and theoretical basis of the field” and “methods and processes.” The same kinds of distinctions apply under “skills and abilities,” e.g. the general credentials refer to problem identification and problem solving, whereas the arts credentials refer to the analysis and interpretation of “forms, techniques, and subject matter” and the creation and performance of “artistic tasks.”

Where the Swedish Ordinance departs from other national qualification frameworks is in specifying key variations of these constructs at the level of the Bachelor’s degree in those 40 applied fields, some of which lead to regulated occupations. For example, for a Bachelor of Science in Audiology (which we also offer in the U.S.), the Ordinance says:

Under “Knowledge and Understanding”: the degree candidate “must demonstrate knowledge . . . of current research and development work” along with “relevant legislation.”

Under “Skills and Abilities”: the degree candidate “must demonstrate an ability” to conduct hearing examinations and plan “habilitation and rehabilitation measures” with the patient.

Under “Judgment and Approach”: the degree candidate “must demonstrate an ability to make intervention assessments based on a holistic approach. . .”

These are just a few of the criteria listed in the Ordinance for this degree (and the text for Audiology is rather sparse compared with that for Nursing). Notice, though, the repetition of the phrase, “must demonstrate.” The Ordinance does not tell the institutions of higher education what kinds of assessment should carry that demonstration, but there is no question of the force of the imperative. Institutions must be able to “demonstrate” that their graduates “have demonstrated.” The same form of qualification statements is then applied at the Master’s level. A close reading of those statements reveals the same drama of ratcheting up criteria as we have witnessed elsewhere in the Bologna-inspired qualifications revolution.

The Netherlands

The December 2008 draft self-certification of the Higher Education Qualifications Framework in the Netherlands (Ministry of Education, Culture and Science [OCW] 2008) with which we are working goes to pains to write analytical assurances that are particularly sensitive to “transfer, intake and lateral entry, and of the meaning of the qualifications for Dutch society, including the

labor market” (p. 6) and to emphasize that the framework is a de facto extension of existing accreditation standards. So to whom do these qualifications speak?

“Employers, human resources officers, branches of industry, aspiring students, all those desiring to reach a higher educational level, their parents or guardians, deans and student counsellors, higher education institutions, and various authorities and sections thereof” (p. 6)

One can see in those statements that a qualifications framework does not map territories with iron borders, but, in fact, with interlocking yet open borders. It should be written so that the student sees how one moves from one level to another, and so prospective students understand how one enters from outside the framework (i.e. matters of recognition of learning in non-formal and informal settings are acknowledged).

The Dutch approach to a national qualifications framework is thus very different from the others described above, and in two respects:

- The qualifications statements reference labor market positions and tasks. Each occupation ideally establishes a qualifications dossier, e.g. for a Manager of Information Systems, that spells out the core tasks (*kerntaken*) of the position, the degree of complexity of these functions, other personnel (by function) with whom the individual interacts, and provides a competence matrix matched to each of these tasks.
- The structure of qualifications statements is based on institutional-type in a binary system, that is, at each degree level, there are distinct reference points for the institutions of applied sciences (the *hogescholen*, or the HBO Sector) and universities (the WO sector). There is another way of phrasing this: the draft Dutch framework refers to different lines of “orientation,” including the confining of the new short-cycle associate’s degrees to the HBO sector (though it is clear that the HBO Associate can progress to the HBO Bachelor’s). In fact, the Dutch add a statement on the short cycle program within the HBO-Bachelor’s to their version of the Dublin Descriptors that says these graduates have demonstrated that they can move to the next level (see www.minow.nl/documenten/dublin-descriptoren-beschrijving-20060608.pdf).

Figure 6 provides a closer look at the difference between applied and academic degrees in terms of objectives in the Dutch qualifications framework. However generalized the diction, those are very clear delineations of “orientation.” One unfortunately observes that the phrasing on the academic side is exclusively that of scientific knowledge paradigms, thus overlooking the bulk of degree program volume in the humanities, social sciences, and fine arts. There is no similar bias on the applied side: the generalized statements can easily accommodate medical technology, hospitality management, and design.

Figure 6. Dutch Qualifications Reference Points for Applied and Academic Degrees

	<u>Applied (HBO)</u>	<u>Academic (WO)</u>
<u>Bachelor's level</u>		
Final qualifications are derived from	occupational profiles and/or professional competences drawn up by (or discussed with) the relevant occupational field.	the requirements of scientific disciplines, international scientific practice and—in the case of some programmes—relevant practice.
Holders of Bachelor's degrees have obtained	the qualifications for the level of starter professional practitioner in a specific occupation or spectrum of occupations. . .	the qualifications to allow admission to at least one subsequent WO [university] course of study at the Master's level and to the labor market
<u>Master's level</u>		
Have obtained the qualifications	for the level of independent and/or management level professional practitioner in an occupation or spectrum of occupations . . .	to carry out independent scientific research or to resolve multidisciplinary and inter-disciplinary issues in professional practices. .

(OCW 2008, p. 15)

France

The French qualifications framework is more a process and registry under which each institution offering education or training (vocational schools are included along with universities) submits, for each credential program offered, a basic prospectus to a nationally chartered body²⁵ for review and approval. Even if the credential program has been in existence for 500 years, it must be set forth anew in a standard form, and basically undergo the first stage of an accreditation review. Ultimately, the program is validated by the national ministry responsible for the field of

²⁵ The *Commission Nationale de la Certification Professionnelle* (CNCP). The collection of approved programs is known as *le Répertoire national des certifications professionnelles* (RNCP), available on-line.

that program (it can be the ministry of agriculture, the ministry of commerce, or the ministry of health, though the ministry of education is responsible for the bulk of validations) The process is governed under the terms of a 2002 law, illustrating a different type of legislative intervention than that we described for Sweden, one designed to move the French system to the Bologna degree cycles (in local parlance, LMD, or *licence, master, doctorat*).

The form and procedures specify periods and deadlines within which the program resumes must be submitted, the protocols of review by boards of examiners, and eight (8) documents to accompany each submission:

1. Analysis of the demand for the certification at issue
2. Identification of the organizations delivering the certification
3. History of the creation of the certification
4. Targeted qualifications and qualification levels
5. Articulation with other certifications (vertical and horizontal)
6. Routes of access to the program
7. *Référentiel de certification*
8. Plan of action to be pursued following review

The only instructions that address the elements of the QFEHEA and other national qualifications frameworks we have seen requires the dossier to include a description (the *Référentiel de certification*), for all candidates, of the competences, “aptitudes” and knowledge associated with the qualification and necessary in the work for which the study qualifies the student. In support of this analysis, the institution is asked to describe (presumably by survey) the experience of three recent cohorts of graduates. In this labor market oriented respect, the French reference points resemble those invoked in the Netherlands.

More important is the requirement that the applicant program detail the modes of assessment employed to determine those competences, aptitudes, and knowledge, and to provide evidence of their transparency and reliability. It is stressed in all this that the value of the certification is guaranteed independent of the modes of instruction or the ways in which the students entered the program (from earning the secondary school leaving *baccalauréat*, continuing education, or by the validation of prior experiential learning known as the VAE, etc.). There is considerable leeway in all this for the institution and its programs to present different configurations. Each institution—and its programs—are on a 4-year “contract” for the process, i.e. there is a built-in cycle of renewal.

For a concrete example of a prospectus to renew recognition of a first cycle (*licence*) diploma we are fortunate to have the paperwork for the degree in Geosciences and Environment from the Department of Geology at the Jean Monnet University in St-Etienne (Université Jean Monnet 2007). What does the university present in this prospectus?

University of Jean Monnet (St-Etienne, France): RNCP Prospectus for *Licence* Degree
in Geosciences and Environment

First, a justification for the degree program based on the demand of 20–30 students/year.

Second, a statement of program objectives in light of economic activities involving land development, geotechnical work, management of natural resources—all of which are principal labor market outlets for students receiving the credential.²⁶

Third, a clear indication that the first two years of study involve concentration in the three core sciences upon which the program rests: biology, geology, and chemistry, along with mathematics and physics. It is in the third year that integration of basic knowledge in environmental applications becomes the primary subject. A small number of students come into the program with the French short-cycle (two-year) DUT (*Diplôme universitaire de technologie*) degree at this point, after examination of their records to determine the adequacy of their preparation for the *licence*.

Fourth, a broad description of the purposes of the degree and its relationship to other programs (geography and biology in particular), with appropriate references to the subjects of Geosciences (cartography, petrology, geochemistry, etc.).

Fifth, specifications, including two innovations in the program: foreign language education and a professional project. The university's prospectus places emphasis on changes in pedagogical environment, attention to students with disabilities, outreach to increase access, and faculty development for expanded roles in distance education.

Sixth, a statement of credit requirements for the *licence*: 146 obligatory, 28 optional, and 6 free. The curricular sequence is set forth by semester. Of note are 4 ECTS in the first year for computer applications, and an optional math course entitled Games, Enigmas, and Paradoxes. English is required in the 2nd, 3rd, and 6th semesters.

Accompanying the longer dossier is a brief resume, in which one finds the typical rhetoric of a qualifications framework, albeit in very condensed form. This submission makes it clear that the degree is intended to prepare students to pursue studies in the second (Master's degree) cycle, either professional or research, to continue study in a school of engineering or to prepare for school teaching. The competence goals listed are:

²⁶Jean Monnet is careful to note that it is not proposing a Master's degree in the same field. It speculates that students who earn the *licence* and wish to continue will find their way to a Master's degree in Geosciences in other institutions, to other related Master's degrees at Jean Monnet or to a specialized institution for teacher training (known as IUFMs in France) to prepare to become school teachers.

- Acquiring fundamental knowledge, theory, and practice in earth and environmental sciences, specifically mineralogy, petrology, cartography, geochemistry, geophysics, statistical practices, and physical geology;
- Acquiring knowledge from other disciplines necessary for scientific study: math, IT, and English;
- Being able to initiate scientific inquiry (analysis and synthesis of information, formulation and testing of hypotheses); and
- Demonstrating mastery of methods of scientific communication: written, oral, graphic.

As Mario Ahues of the University of Jean Monnet reflected on many similar program submissions, “separating knowledge from cognitive operations was difficult, but the divergence was more apparent in professional [occupationally-oriented] degrees, and the lessons from that tradition were then applied to academic degrees.”

With the example of the University of Jean Monnet, it is obvious that both the French and Swedish approaches to national qualifications frameworks drill down to the level of the discipline or program, and thus border on the discipline-focused “Tuning” project that has cut across 34 European countries to date (see Section 3 below). But the French system is sweeping, works up from the discipline and makes it central, whereas the Swedish 2006 Ordinance was more selective and limited in its attention to the discipline. One could speculate that the building of a national registry of programs in France is a prologue to both some rationalization of the national credential portfolio and to a generic form of a national qualifications statement closer to the presentation of the Framework of Qualifications for the European Higher Education Area. By 2007 the French had disposed of one of their major intermediate credentials, and future analysis of the 4800 programs submitted to the CNCP to date may lead to additional consolidation. It is a slow but meticulous process.

Scotland—and the Rest of the U.K.

Along with two different higher education authorities, two different frameworks live together in the United Kingdom. The Scottish Credit and Qualifications Framework was early, elaborate, and lofted as exemplary—along with that of Ireland—by the Bologna Working Group on Qualification Frameworks when the Group noted that these frameworks “are not . . . theoretical entities but have been proven to be feasible in practice” (Bologna Working Group 2007, p. 24). The *Framework for Higher Education Qualifications in England, Wales, and Northern Ireland* was also early (2001), but less ambitious, less detailed, and surrounded by ancillary processes of program specifications (see section 3.7 below) and benchmarking (see section 3.5 below).

There were pre-existing structures for the Scots to use in establishing a qualifications framework, reflected Gerard Madill of Universities Scotland. The most significant of these, he offered, is a common examination agency at the school level, rendering it easier to articulate qualifications, whereas in England there are multiple examination agencies at the school level, and that, in part, explains why the UK Framework is confined to tertiary education.

What does the SCQF, which came on stream in 2001, try to do? Connect the multiple paths of a complex system more efficiently and clearly so that students can progress from one credential to another, maximizing transfer of credit in the process, and facilitating student planning their progress. If you combine volume of learning with level of learning outcomes, you get the idea. To those who ask whether a Qualifications Framework is a philosophical or a technical statement, the SCQF is a combination. And, as Raffe *et al* (2005) point out, a QF can serve both communication purposes (hence “enabling”) and regulatory purposes. (p. 16).

A little taste of the SCQF is in order. The Irish scoped 10 levels of qualifications from elementary school through the doctorate; the Scots have 12. So these are both frameworks that seek alignment of all levels of education through qualifications statements. The descriptors for all levels come under five broad headings:

- knowledge and understanding (mainly subject based)
- practice (applied knowledge and understanding)
- generic cognitive skills (e.g. evaluation, critical analysis)
- communication, numeracy, and IT skills
- autonomy, accountability and working with others”

Descriptors such as these (as well as the big generic statements of the QFEHEA) are not intended to spell out precisely and in detail what students learn at each level. They package “general levels of outcome. It does not mean that they have the same purpose, content or outcomes.”²⁷

To illustrate, let us use the SCQF levels 9 (Ordinary Bachelor’s) and 10 (Honours Bachelor’s), also known as SHE3 and SHE4 (Scottish Higher Education level metrics) under the outcomes heading of “knowledge and understanding”:

Level 9: a broad and integrated knowledge and understanding of the scope, main areas and boundaries of a subject/discipline;

Level 10: knowledge that covers and integrates most of the principal areas, features, boundaries, terminology and conventions of a subject/discipline;

²⁷ www.scqf.org.uk/AbouttheFramework/Levels.aspx, undated, unpaginated

Level 9: a critical understanding of a selection of the principal theories, principles, concepts and terminology;

Level 10: a critical understanding of the principal theories, concepts, and principles;

Level 9: knowledge that is detailed in some areas and/or knowledge of one or more specialisms [sic] that are informed by forefront developments;

Level 10: detailed knowledge and understanding in one or more specialisms [sic], some of which is informed by or at the forefront of a subject/discipline;

Level 10: knowledge and understanding of the ways in which the subject/discipline is developed, including a range of established techniques of enquiry or research methodologies.

It's not merely the case that the Honours award requires the demonstration of more facets of mastery; it's also the case of specificity and depth on individual benchmarks, e.g. adding "boundaries, terminology, and conventions" to a core statement of understanding a subject/discipline. The ratchet principle is well observed—and reinforced—for a degree at Level 10 (Honors Bachelor's) by an additional reflective meta-disciplinary requirement.

How did universities respond to and use SCQF? Principally for curriculum development, review, and reassessment of the levels at which topics were being taught. The SCQF became "a primary reference point" (Raffe *et al* 2005, p. 39), a phrase we will also encounter in the pan-European "Tuning" project to produce learning outcome templates in the disciplines. Administrators used it to see where provision was lacking, e.g. in Subject X at Level M. Faculty rewrote their syllabi in a learning-outcomes format and rhetoric, and thought more systematically about levels of demand, challenge, and sophistication, let alone where the gaps lay (parallel to administrative analysis). Once they got through those tasks, though, the SCQF became a quiet background tapestry, not a daily intrusion. The SCQF also inspired the expansion of assessment of prior experiential learning, hence influenced recruitment and admissions on the front end of the undergraduate experience.

The Rest of the UK

The UK higher education system has undergone one major restructuring in recent years (1992), and contends with an even more complex institutional-type configuration and its overlapping governance relationships with local authorities than Scotland. It has produced some very thoughtful and challenging reflections and proposals for continuing development of its own system (both the 1997 *Dearing Report* and the so-called 2007 *Burgess Group* report will be cited later in this presentation), and, until recently, through its Quality Assurance Agency, promulgated "program specification" and discipline-specific "benchmarking" structures with greater visibility than its NQF.

However, in a very revealing case of convergence—or, better, what happens after seven years of living with Bologna and studying Dearing and Burgess—what one might call a “provisional” 2001 Qualifications Framework (QAA 2001) was revised in 2008 (QAA 2008). In both documents, there is a clear separation between what a student will “demonstrate for the award of the qualification” from “wider abilities that the typical student could be expected to have developed” (QAA 2008, p. 14). This distinction carries over into relatively precise, discrete, yet generic “qualification descriptors” that extend well beyond the Dublin Descriptors, but in which the ratchet principle sometimes displays inconsistently parallel lines and falls short of clear distinctions of each level of credential, to wit (in the line for communications outcomes):

Certificate holders will be able to “communicate the results of their study/work accurately and reliably, and with structured and coherent arguments.”

Intermediate level holders will be able to “effectively communicate information, arguments, and analysis, in a variety of forms, to specialist and non-specialist audiences. . .”

Honours level holders will be able to “communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences.”

Master’s level holders will be able to “communicate their conclusions clearly to specialist and non-specialist audiences.” (QAA 2001, pp. 6-7; QAA 2008 pp. 16, 19, and 21)

Yet among other differences between the original and the final NQF, the Foundation Degree is given prominence in the latter (it was only one year old in 2001), and the 2008 text is more elaborate on the difference between “qualification descriptors,” the more discipline-oriented subject benchmark statements (see pp. 58-61 below), and institutional “program specifications” (that read more like goals, less “qualifying” than what one reads in Tuning projects). Not surprisingly, the 2008 adds a section on implementation issues (e.g. the naming of qualifications), accounts for some Welsh variations, and is very clear that degrees “are awarded to mark the achievement of positively defined outcomes, not as compensation for failure at a higher level, or by default” (QAA 2008, p. 33), thus reinforcing the warranty function of an NQF.

2.3 And What Do the Students Think of Qualification Frameworks?

If we are to judge by the formal public statements of the European Students’ Unions (ESU), students are attracted to national qualifications frameworks because they are learning centered and not teaching centered; and the ESU is properly insistent on students’ active participation in the development of NQFs. The student unions continually advocate learning outcomes to be set in such a way that they reflect “all major purposes of education,” to wit:

- “Maintenance and improvement of an advanced knowledge base;
- Personal development;
- Preparation for the labour market with a sustainable, long-term perspective;
- Preparation for life as an active, constructive and critical citizen in a democratic society” (ESU 2004, p.1)

There are ways in which some of the national qualification frameworks developed to date address all of these objectives, e.g. one can say that becoming an autonomous learner is a matter of “personal development,” or, in the German NQF’s “systemic competencies,” the development of powers of judgment that include social and ethical considerations addresses the goal of preparing for life as a “constructive and critical citizen.” To be sure, there are some stretchings of the case here, but the case can be made. Whether qualification frameworks that explicitly address all four purposes, though, may be secondary to the configuration of mechanisms and forms that render degrees transparent and comparable. And, as the ESU points out, a national QF alone does not achieve that end. One needs the other Bologna “tools”—ECTS, Diploma Supplement, and quality assurance systems—to get there.

Midway through the first phase of Bologna, ESU (2004) asked a common-sense question about the development of national QFs: what do you want them to do? The student interpretation of purpose is set in the frame of the social dimensions of Bologna: a linking of academic and practice sectors and a linking of traditional pathways to non-traditional pathways, hence of facilitating the participation of adult students, the under-represented, and isolated populations. It is for that reason, too, that ESU urges the inclusion of short cycle credentials where they exist (and, by implication, that short cycle credentials be created where they do not now exist) on the grounds that they “facilitate access to HE for people without the final school leaving certificate,” (p. 2). The ESU saw this inclusion more crucial at the pan-European QFEHEA level than at the national level (and, of course, got its wish in 2005, when the Bergen ministerial meeting explicitly included short-cycle qualifications in the QFEHEA).

One should add that, in its 2004 policy paper on qualification frameworks, the ESU take on time, credits, workload, and learning outcomes is a model of sanity and perceptiveness: the student unions dismissed “years of study,” seen as elapsed time, as indicators of inflexibility, endorsed credits instead to measure notional time, and highlighted workload analysis “as a tool for assuring quality by preventing overloaded curricula.” (ESU 2004, p. 3) Or, as we might put it, overloading students to the point at which they learn less, fail more often, and are more likely not to complete their credentials, is not exactly a wise strategy, to put it mildly.

2.4 Qualifications Frameworks: Stepping Back

Despite national variances, European qualification frameworks are the cement of mutual recognition of degrees. As they emerge at the national level, they create that “zone of mutual

trust” to which we have previously referred. To a greater or lesser extent, they all follow the Framework of Qualifications for the European Higher Education Area (the Dublin Descriptors) in settling on the same learning objectives as building blocks, hence assuring that they are singing in the same key. But after that point, they go their separate ways: elaborate vertical ladders covering all levels of education (Ireland, Scotland), confining themselves to articulating lines from the Bachelor’s to the Master’s levels (Germany, Netherlands), adding credit benchmarks and intermediate credentials (Sweden), distinguishing cycles by external reference points in the labor market and research practice (the Netherlands, at least in draft), and detailed discipline program review (France). Other paths may yet emerge.

Do these various approaches render German bachelor’s degrees understandable in Ireland? Scottish honors Bachelor’s degrees comprehensible in the Netherlands? Absolutely! Does that mean they are the same degrees? No! But are they analogous? Yes. Do qualification frameworks equalize differences in secondary school preparation and mask differences in student academic performance? No. Some students will inevitably perform better than others, but all who receive degrees will have crossed the thresholds of attainment. And the public posting of degree requirements in terms of content and performance thresholds phrased as learning outcomes, and endorsed by national legislation, becomes a warranty statement, a reference point of quality assurance, an expansion of the “zone of mutual trust.”

To repeat: When one defines levels of learning such that each rung on the ladder adds criteria of greater challenge and complexity of context, (a) we all have a much clearer sense of how the levels and their credentials are related, and (b) we have strong guidelines for comparison—of one system to another, of one institution to another. On the institutional level, the comparisons are more transparent when qualification frameworks in individual disciplinary majors are added. That’s where the rubber hits the road, something the Tuning methodology helps institutions address, and which is described in Section 3 below. In the broader context of Bologna, all these qualification frameworks imperceptibly impel national systems to talk to each other in roughly the same terms, hence enable comparisons, transparency, and mobility of students. The Irish might say that their Level 6 Higher Certificate is roughly equivalent to a Swedish “diploma,” for example, thus enabling an Irish student with a Higher Certificate to transfer to the second or third year of a Swedish bachelor’s program—but that depends on a national qualifications statement from Sweden.

3. The Core of Bologna, Line II: Qualifications Frameworks from the Ground-Up: the “Tuning” Model and its Analogues

The winds of Bologna changed the atmosphere for higher education reform in Europe. They came early, scattering seeds that were picked up, planted, and nurtured outside the formal proceedings. The most notable of these is the “Tuning” project, designed by faculty not ministers, created less than a year after the Bologna Declaration was signed, funded by the

Socrates-ERASMUS²⁸ program of the European Commission, and spreading until it was unofficially embraced as a component of the Bologna agenda²⁹.

“Tuning” is a methodology that produces “reference points” for faculty developing statements of learning outcomes, levels of learning, and desired competences in the disciplines so that those statements are transparent and comparable. “Tuning Educational Structures in Europe” has its continuing homes at the University of Deusto in Bilbao, Spain and the University of Groningen in the Netherlands, which coordinate this university-level project. In terms of qualifications frameworks, its focus is on the institution and pan-European field, not the national or pan-European degree cycle. It seeks to assist institutions and faculty in describing “cycle degree programs at the level of subject areas.”

Does that mean standardization of content, sequence, and delivery modes? Does that mean that the business program at the Warsaw School of Business will be a carbon copy of that at the University of Coimbra in Portugal? Hardly. Tuning goes to great lengths to balance academic autonomy with the tools of transparency and comparability. It’s a delicate balancing act, but the participation evidence says they’ve done it, though more successfully in some disciplines than others. The official Tuning documents³⁰ stress that criterion referenced competency statements are not “straightjackets.” They provide a “common language” for expressing what a curriculum at a specific institution aims to do, but do not prescribe the means of doing it, under the conviction that “different pathways can lead to comparable learning outcomes” (Gonzalez and Wagenaar, eds. 2003, p. 244). The Tuning notion became a form of “convergence.” Everybody winds up with the same music staves, range of time signatures, tempo commands, system of notation. Then, all programs in the same discipline sing in the same key—engineering in A-minor, history in G, business in B-flat—but don’t necessarily sing the same melodic line.

For example (using the Tuning statements on the content of first cycle degrees), if the Business group decided (as it did) that the basic function of a firm could best be seen as a “value-chain” and that “business graduates will mainly be involved in the economic, planning, and human resource management aspects of a business organization,” then, they concluded: (1) a curriculum has to deal with the primary functions of procurement, manufacturing (product and/or services), sales, and service, and supportive functions of firm infrastructure, company structure

²⁸All the EC’s education and training programs were folded into one administrative organization in 2002, called “Socrates.” The ERASMUS mobility programs now constitute the higher education sub-division of Socrates.

²⁹While not cited in ministerial communiqués, Tuning is a noted presence on the Bologna Process Web site, and in the reports and presentations of leading Bologna promoters such as Pavel Zgaga of Slovenia and Stephen Adam of the UK.

³⁰Tuning Educational Structures in Europe 2005. *Final Report: Pilot Project, Phase I* is the source for the discussion on pp. 47-48.

and systems (organizational behavior), and information systems, and (2) the program has to state “subject specific skills and competences” as desired learning outcomes to match the curricular assumptions. So one would get statements of learning outcomes in “core knowledge” (e.g. operations management, marketing, accounting), in supporting knowledge (economics, statistics, law, IT), and in communication skills (language, presentation, teamwork). The Tuning group in Business did not specify those outcomes statements, but did recommend their distribution for the first cycle degree: 50 percent in core knowledge, 10 percent in economics, and 5 percent each for quantitative methods, law, and IT. Notice that that recommendation does not add to 100 percent—on purpose. Yes, there is another recommendation for either a Bachelor’s thesis, internship, or “activities documenting ability to solve problems across different business subject areas” that might well eat up some of the residual percentage. But there is still flexibility for the local program.

How did the Tuning group in Business arrive at these specifications? In part—and this is a key step in the Tuning methodology—by a consultative survey involving previous graduates of business programs and employer representatives with considerable knowledge and experience in the various facets of business programs (finance, accounting, marketing, organizational behavior, etc.) along with academics from institutions both participating and not participating in the Tuning project. The objectives of such a survey (carried out in each field involved in Tuning) include gleaning current perspectives on the diversity of practice and commonality of knowledge across borders and traditions, and seeking a simple and accessible language to create a scaffolding on which the various degree programs can work in comfort and trust.

Any discipline Tuning project in the core program managed by Groningen and Deusto passes through three phases: a pilot of organization and consultation, a pilot of drafting reference points and templates of learning outcomes in the field, and finally, a consolidation and implementation phase.

In these first three phases of the Tuning project, each working group in nine (9) subject areas³¹ across 137 institutions in 29 countries, arrived at a “common language” to describe their curricular goals and learning outcomes templates. The languages differed discipline by discipline, as one would expect, but the reference points were remarkably constant. The effort has been very persuasive, not only in Bologna countries, where 16 other degree fields³² joined the Tuning model through what are called “Thematic Networks”, but also, in the most noted case of Bologna model adaptations outside Europe (Beneitone, *et al.* 2007), by the Tuning Latin

³¹Business, Chemistry, Earth Sciences, Education Sciences, European Studies, History, Mathematics, Nursing, and Physics.

³²Agriculture, architecture, arts, computer science, civil engineering, food studies, geodetics, geography, humanitarian studies, landscape architecture, languages, occupational therapy, political science, radiography, social work, and sport science.

America project, ALFA (*América Latina–Formación Académica*), that has expanded since its 2004 beginning to 182 universities from 18 countries participating and 12 subject areas (architecture, business, chemistry, civil engineering, education, geology, history, law, mathematics, medicine, nursing, and physics). Something resonates here.

Indeed, ALFA was born of an attraction to the European creation of points of reference in the disciplines, and to the process by which those points were established. The Latin American effort helps us understand the very essence of tuning: (a) arriving at the same frequency, as one does on a television or radio and (b) adjusting the different instruments of an orchestra to the equivalent of the first chair violinist's "Concert A." To tune requires points of convergence, points of harmony. There is a protocol and a system to all this that keeps higher education in constant and serious dialogue with local, national, and transnational organizations, employers, and governments, and connected to an unbroken stream of feedback from students and alumni. By "dialogue" is not meant one-day meetings of mutual pontification: in ALFA's principles, it signifies continual shaping of the learning outcomes of a field and the means to achieve those outcomes. And if you are on the same continent, you do this together so that university graduates in one country can study and/or work in another without walking into a wall of disciplinary dissonance. The deep structure of purpose in the ALFA undertaking was thus to advance "the articulated development of easily comparable and understandable qualifications in Latin America" (Beneitone *et al.* 2007, p. 13).

3.1 "Thematic Networks" and Tuning

It was noted that Tuning projects were taken up in 137 institutions in 29 countries, a limited footprint against the magnitude of the Bologna landscape. But Tuning has also been leveraged, and its influence more widespread, through confederations known as Thematic Networks. These are ad hoc organizations, funded by the European Commission, that address either pan-European research issues (e.g. nanotechnology), regional issues (e.g. Atlantic fisheries), community development problems shared across borders (e.g. health services provision), or academic development in the disciplines or multi-disciplines. Academic Thematic Networks are conducted under the Socrates-ERASMUS program,³³ encompass university departments (or specialized institutions such as music conservatories or medical schools), learned societies, allied professional organizations, and other appropriate partners (including industry associations and student unions). Through a competitive process, they are selected and funded for three-year periods (with an optional fourth year for dissemination) to enhance the quality of their fields through a variety of cooperative vehicles, and to "develop a European dimension within a given academic discipline or study area." (Borri, Guberti, and Maffioli 2007).

³³http://ec.europa.eu/education/programmes/socrates/tnp/index_en.html.

Academic Thematic Networks were established by the European Commission before Bologna and before Tuning, though the EC has encouraged³⁴ these networks to engage in the Tuning process, not merely with the Bologna Qualifications Framework for the EHEA in mind, but also to intersect the Lisbon Strategy's European Qualifications Framework (EQF). For example, in 2007 the EC funded the co-lead Tuning project at the University of Deusto (with partners in 10 countries) to extend the Tuning model to the social sciences (specifically law, sociology, psychology, political science, international relations, and communication studies) and simultaneously "to develop a credit based sectoral qualification framework. . .to cover the levels 3 to 8 of the EQF" (EACEA 2008). Such an objective is one of the rare cases within the accountability loop in which Bologna-type projects come to terms with the Lisbon Strategy.

Each Thematic Network contract is lead by a university, and there is nothing that prevents a series of Thematic Network projects in the same discipline. For example, within engineering, we find the H3E (Higher Engineering Education in Europe) project from 1998-2000, the E4 Thematic Network (Enhancing Engineering Education in Europe) from 2000-2004, and the TREE Thematic Network (Teaching and Research Engineering in Europe) from 2004-2008. Given their funding by the EC, they are European Union oriented, and, from their base in higher education, seek "to contribute to the cultural, economic and technical construction of the Union." Some 35 Thematic Networks were functioning in 2006, and our purposes highlight those that conducted Tuning projects, particularly the E4 and TREE projects in engineering and Project Polifonia in music.

Following European Commission guidelines, the Thematic Networks that take on Tuning seek guidance from what one might call "Tuning Central" at Groningen and Deusto, and when they have completed each phase of the Tuning sequence, are validated by Tuning Central. They also involve a considerable number of institutional partners, e.g. 78 for the European Network for the Teaching of History, lead by the University of Pisa, 149 for the European Network in Occupational Therapy in Higher Education, lead by the University of Utrecht, and 57 in Project Polifonia. The Thematic Network approach thus multiplies the effects of the Tuning methodology and process, though participation is hardly universal across the Bologna landscape. Interestingly, the EC, through Socrates-ERASMUS, sees a few of the disciplines that participated in the core Tuning activities—mathematics and teacher education—as "not sufficiently covered" by institutional participation to date (2008).

3.2 Subject-dependent outcomes in the Tuning model

The following is the author's condensation of the subject-dependent general learning outcomes, the "reference points" that Tuning suggests for the "completion of the first cycle" degree, the

³⁴ While Socrates-ERASMUS lists Tuning as "one of the kind of issues on which academic projects will tend to focus," it also specifies that "Networks are now expected to implement the methodology and outcomes of the Tuning project in their discipline." (http://ec.europa.eu/education/erasmus/doc1016_en.htm).

Bachelor's.³⁵ The student is about to receive a degree in a specific major (accounting, anthropology, architecture, agricultural science, to pick on the As). The student should

- Demonstrate knowledge of the foundation and history of that major field;
- Demonstrate understanding of the overall structure of the discipline and the relationships both among its sub-fields and to other disciplines;
- Communicate the basic knowledge of the field (information, theories) in coherent ways and in appropriate media (oral, written, graphic, etc.);
- Place and interpret new information from the field in context;
- Demonstrate understanding and execution of the methods of critical analysis in the field;
- Execute discipline-related methods and techniques accurately; and
- Demonstrate understanding of quality criteria for evaluating discipline-related research.

There are other criteria, of course, that are more specific to scientific majors, arts majors, etc. But when you read those general statements as a set of expectations for students continuing to the second cycle, and then read a parallel set of statements for the second cycle, you see why European students come to judge attainment at the second cycle to be the true end of undergraduate study, sufficient for entering the labor market on a secure trajectory. The second cycle graduate (again, translating, elaborating, and editing):

- Within a specialized field in the discipline, demonstrates knowledge of current and leading theories, interpretations, methods, and techniques;
- Can follow critically and interpret the latest developments in theory and practice in the field;
- Demonstrates competence in the techniques of independent research, and interprets research results at an advanced level;
- Makes an original, though limited, contribution within the canons and appropriate to the practice of a discipline, e.g. thesis, project, performance, composition, exhibit, etc.; and
- Evidences creativity within the various contexts of the discipline.

³⁵The source for this material is *Introduction to Tuning*, 2nd edition (2007).

No doubt readers will immediately notice parallels to outcome statements for the Bachelor's and Master's degree qualification statements we saw in both the Qualifications Framework for the European Higher Education Area and in national qualifications frameworks from Ireland and Germany, for example. These parallels reinforce transparency and comparability in Bologna-inspired credentials. The light admonishment of the Bologna Follow-Up Group to the disciplines to make sure their Tuning-type activities reflect the Dublin Descriptors (BFUG Working Group on Qualifications Frameworks 2007, p. 9) seems gratuitous in this context.

Some disciplines participating in the Tuning project extended these reference points to continental conclusions, advocating a "Eurobachelor" degree that would be common across borders and institutions. The Tuning Project Chemistry Group, for example, developed and presented the idea to the European Chemistry Thematic Network in 2003, and it was approved by the General Assembly of the European Association for Chemistry and Molecular Sciences (EUCHEMS) that fall. The document basically says that a chemistry department can follow any route it wishes to some common objectives for:

- Subject knowledge, e.g. "the principles of thermodynamics and their applications to chemistry," and "the nature and behavior of functional groups in organic molecules"
- Chemistry-related cognitive abilities and skills, e.g. "skills in presenting scientific material and arguments in writing and orally, to an informed audience"
- Chemistry-related practical skills, e.g. "Ability to conduct risk assessments concerning the use of chemical substances and laboratory procedures"
- Generic skills, e.g. "numeracy and calculation skills, including such aspects as error analysis, order-of-magnitude-estimates, and correct use of units"

and makes sure that its compulsory modules cover analytical, inorganic, organic, physical and biological chemistry, and that half the credits required for the degree (including physics and math) are considered the core. The EUCHEMS document also recommends that a "Eurobachelor" in Chemistry write an undergraduate thesis worth a specified 15 ECTS. Recommendations such as these follow the Tuning philosophy, although in this case the reference points are tighter than they might be in other disciplines. Chemistry involves a good deal of lab work, after all, hence, as the Tuning Project Chemistry Group notes, "important elements of 'handicraft'" that require monitoring are part of the learning outcomes portfolio.

As of September 2008, 45 Eurobachelor and 9 Euromaster Chemistry Quality Labels had been awarded by EUCHEMS to 37 universities in 16 countries and two consortia (ECTN Association 2008). In a way, this process is similar to program accreditation in the U.S. by the American Chemical Society (the only traditional arts and sciences discipline to engage in formal program accreditation in the U.S.), but the emphasis of Euro-certification lies more on criterion-referenced learning outcomes for students than on faculty backgrounds and institutional facilities. Thus, within the Eurobachelor certification there is a range in the types and sub-fields of the degrees so certified. For the Technical University of Vienna, the bachelor's degree program is in Technical

Chemistry; for the Ecole Supérieure de Chimie, Physique, Electronique de Lyon in France the quality label master's degree, with learning outcomes including transport phenomena, looks closer to chemical engineering; for the University of Bologna there are three *Laurea* that have been anointed with the Eurobachelor label: industrial chemistry, ceramic materials and technology, and environmental chemistry/waste management (ECTN Association 2008). A design that allows for such variance is a direct outgrowth of the Bologna action portfolio and its expansion by Tuning.

3.3 Competences³⁶ Across the Disciplines in the Tuning Model

Accountability discussions in U.S. higher education rarely focus on what is directly taught, i.e. subject matter that reflects the training and organization of our faculties, rather on what is indirectly or obliquely taught—to which is ascribed global labels such as “critical thinking” and “problem-solving,” the meaning of which might as well be left to mystics to divine. We have something to learn from our European colleagues here as they have been far more sophisticated and concrete in the matter of generic capacities one expects will be developed in the course of higher education.

The Tuning strategy explicitly acknowledges the primacy of disciplinary knowledge, but holds that competences, that which is *indirectly* taught or “fostered,” are developed within every discipline—or should be, and that disciplinary context determines the shape and development of those competences. Tuning addresses two types of competences: (1) academic-subject specific competences, which “give identity and consistency to the particular degree programs,” and (2) generic competences, or “shared attributes which could be general to any degree” (González and Wagenaar (eds.) 2008, p. 28). Within this second type, Tuning distinguishes between instrumental, interpersonal, and systemic competences. Instrumental competences, it points out, are the most clearly defined, and, as a set, “delimited.” We understand them better than the others. They are:

- *Cognitive*, the “capacity to understand and manipulate ideas and thoughts” with analysis and synthesis;
- *Methodological* “capacities to manipulate the environment” with organization and planning, as in time management, “strategies of learning,” decision-making, and problem-solving;
- *Technological* skills, e.g. computing, information management, operating complex equipment; and

³⁶ Reminding the American reader: the European English “competences” is used throughout instead of our “competencies.”

- *Linguistic*, including the capacity for complex inference in reading (though Tuning does not mention that piece of the linguistic pie), oral and written communication, and fluency in a second language

Regardless of a student's course of study, institutions of higher education seek to foster development of all these instrumental competences. Put together, a student earns a degree in chemistry or history, each of which puts forth a profile so transparent that any reader knows what makes them degrees in chemistry or history and not something else. Along the way, both those degree programs impel the student to develop cognitive, methodological, technological, and linguistic competences—to be sure, in different contexts and with different degrees of emphasis. Tuning sees research, application of knowledge in practice, initiative, and creativity, for example, as “systemic competences,” of which one could say that, depending on field, institutions of higher education offer opportunities to discover and experience.

Of Tuning's instrumental competences, U.S. discussions focus principally on the cognitive, and under that very loose mantra of “critical thinking.” Typical of the spreading influence of Bologna-inspired qualification frameworks at the institutional and disciplinary levels, three technical universities in the Netherlands issued guidance for these efforts (Meijers, A.W.M., van Overveld, C.W.A.M., and Perrenet, J.C. 2005) that includes a deconstruction of the cognitive in four dimensions :

- **Analytic:** “. . .the unravelling of phenomena, systems, or problems into sub-phenomena, sub-systems or sub-problems . . .The greater the number of elements involved, or the less clear it is what the elements of the resulting analysis are, the more complex the analysis.
- **Synthetic:** “. . .the combining of elements into a coherent structure which serves a given purpose. The result can be an artefact, . . .a theory, interpretation or model.” The greater the number of elements involved, or the more closely knit the resulting structure, the more complex the synthesis.
- **Abstracting:** “is the bringing to a higher aggregation level of a viewpoint (statement, model, theory) through which it can be made applicable to more cases.” The higher the aggregation level, the more abstract the viewpoint.
- **Concretising:** “is the application of a general viewpoint to a case or situation at hand. The more aspects of a situation are involved, the more concrete the viewpoint.” (pp.6-7)

One observes, in these descriptions, that the notion of increasing complexity can be used to determine the *levels* of demonstrable competence, and, with those levels, an analogous pattern to the ratcheting up of challenge in the pan-European and national degree-cycle qualification frameworks we have previously described.

What one finds particularly attractive in this example are the very concise and prima facie valid descriptors for terms that are tossed around very casually in U.S. discussions of the outcomes of higher education. If we took on the task of writing qualification frameworks (not as goal statements, but as criteria for awards), we might not go about it in exactly the same way, and we might use different terms. But the very attempt is rare in the U.S., and not systemic at all. Without any common reference points, any detailed competency-based statements of the purpose and requirements of our myriad degrees, we pretend that some almost randomly-selected test of something called “critical thinking” given to samples of students says what we do. The rest of the world has moved way beyond that simplistic formulation. Competency-based statements are hard work. But they produce new forms of curricular organization, greater self-reflection on just what it is we want students to learn, and ultimately are far-more student-centered than what we otherwise offer.

3.4 Problems in the Language of Subject Qualifications: Tuning in Practice

If a chief objective of the Bologna Process is to produce transparent degrees, recognized across borders, the learning outcomes criteria within qualifications frameworks should be operational. That is, one should instantly grasp the types of student performance or products that would be subject to assessment and judgment, producing evidence that the criteria had been met. This is a familiar task to those who write criterion-referenced curriculum designs and criterion-referenced protocols for scoring assessments, but an unfamiliar task for most faculty. It was not surprising that, after five years of Tuning, someone would ask how disciplinary qualification frameworks were being written, and offer an evaluation. The CoRe project of the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) took on an evaluation of the way the Tuning methodology plays out in practice, and reported in 2007 (de Bruin *et al* 2007).

CoRe selected four disciplines (Business, Chemistry, History, and Nursing) and three or four university departments in each of those disciplines that had written local profiles for their programs. The evaluators sought to estimate whether the resulting curricula could be judged comparable and hence lead to recognition without problems. In all cases, departments were asked for their basic degree profiles, consisting of documents stating objectives, learning outcomes, and expected competences—no matter what form these documents took.

The CoRe evaluators then engaged in a close reading to determine the extent to which the degree profiles were transparent in terms of indicating what graduates had actually learned. For every learning outcome or competence statement they asked, first, whether the statement had face validity as a “learning outcome” or “competence” (or whether it was something else), and second, whether what was described could be assessed, i.e. was operational. The assessment criterion is particularly trenchant if an institution claims that a graduate has crossed a threshold of learning or mastered a topic. The basic question is whether the institution / department is

producing information “appropriate and sufficient for the purposes of credential evaluation.” This is a quality assurance issue, and is necessary to establish that “zone of mutual trust” for the recognition of credentials across borders.

Most institutions/departments solicited for participation in the CoRe project had previously participated in Tuning, so one would think they had developed degree profiles with supporting documentation. Not so, and the participating institutions were only those that had documents in place. Even that brought varied results. The degree profiles (called “competence profiles” in the reports) ranged from learning outcomes statements to program specifications. What did CoRe find?

When competence statements fail, it is usually a product of vague, generalized, and abstract presentation, and with no reference points for student assessment. For example, one observes

1) Statements that are not really competences.

- “[A graduate is able to] Discuss in an informed manner the implications of professional regulation for nursing practice” (p. 20) As the evaluators observed, what is described here is an “activity” that, to boot, says nothing about what “an informed manner” means.

2) Statements that (in a phrase frequently invoked by the evaluators) are “so vague as to be meaningless”:

- “Graduates are able to apply the knowledge to solve qualitative and quantitative problems of a chemical nature” (p. 25).

3) Statements that are less vague but still don’t tell the reader precisely what graduates of a program are supposed to do:

- “Graduates are able to conduct a whole range of laboratory procedures and use of instrumentation in synthetic and analytical work” (p. 25).

4) Statements that, in another frequently invoked phrase, amount to “stating the obvious”:

- “On successful completion. . .students should be able to undertake appropriate further training or study of a professional or equivalent nature” (p. 32)

Even when a quick reading of a competence statement elicits tacit assent, a more measured reading raises critical gaps. Compare two cases from a history department:

“A detailed knowledge of the history of the Greek and Roman periods with particular emphasis on the transition periods and the areas and timing of interaction between cultures, such as the Hellenistic age. . .” and

“The complete mastery of a wide range of techniques and methodologies, such as the ability to carry out bibliographical and archive searches, a critical reading and a textual analysis, a deeper knowledge of the variety of the historically most used methodologies, use of statistical analysis and application of categories” (p. 38).

The evaluators had praise for the first of these statements, though if one is focusing on a standardized portion of a disciplinary curriculum (in this respect, the classical Greco-Roman period of history would be analogous to pediatric nursing within its field or organizational sociology within its field), one would want to know what *kind* of history (economic, political, social, cultural, etc.) and what “detailed knowledge” means. The evaluators then had reservations about the second statement on the grounds that it is “rather vague about the types of techniques and methodologies that are meant. An elaboration is given, but this is presented as if these are examples. . .” (p. 38). But what “a complete mastery” and “a deeper knowledge” mean is more important than the list. If these learning outcomes statements are going to work as curricular guidelines, then one should be able to describe the assessment criteria for determining that the students have arrived, and as soon as one describes the assessments, then one knows how the curriculum should be structured and delivered to elicit the requisite student performance.

The CoRe evaluation might also have focused on the verbs used in Tuning competence statements, as the selection and definition of verbs in criterion-referenced performance statements is not only a fine art that faculty find challenging, but also a key to convergence at the disciplinary level. In Poland, the Ministry working group developing program requirements defined in terms of learning outcomes at the disciplinary level uses “understanding,” “organizing,” “applying,” “searching,” “measuring,” “describing,” and “judging” in detailed descriptions of first and second cycle programs in, for example, public administration and chemistry, two rather different subjects.³⁷ These verbs do not change from first degree cycle learning outcome statements to those for the second cycle. Consistency is a guidepost, and leads to benchmarking.

³⁷ See www.nauka.gov.pl

3.5 Discipline-Based Benchmarking, a Prominent Analogue to Tuning

The benchmarking approach to learning outcomes at the disciplinary level is a strong suit of the Quality Assurance Agency (QAA) in the United Kingdom, and, like other European reforms we have witnessed, was under development prior to the Bologna Declaration.³⁸

Benchmarking statements are not specifications for curriculum in a specific subject. Rather, they provide Tuning-type reference points and boundaries for designing, modifying, and evaluating the presentation of a discipline by an institution or group of similar institutions. The statements made in benchmarking should be publicly accessible, so that

- the faculty is reminded of what it committed itself to doing in the matter of distribution of knowledge and skills;
- students see in advance—and while in progress—what their academic journey is about, where it is leading, and what levels of performance and understanding are expected; and
- external observers with a constitutive interest in the outcome of students' study (employers, governance authorities, public policymakers) have an important set of guidelines (though not the only set available to them) for judging the quality of education and training provided by institutions in that discipline.

Every discipline stakes its turf, tells people what it is in accessible language. The QAA started issuing benchmarking statements for a wide range of fields in 2000. We use the 2007 versions to glean some models for consideration. The following are summaries of two such benchmarking statements from the QAA: one for an applied/professional field, accounting, and a second for a traditional academic field, history.

Accounting

Accounting is a case in which other guidelines might be produced by professional or regulatory organizations (in the U.S., for example, by the American Assembly of Collegiate Schools of Business or the National Association of State Boards of Accountancy). Those guidelines are independent of the benchmarks, and, as the QAA reminds, “the content of degrees is not prescribed by professional bodies” (QAA 2007a, p. 1)

- The program is both theoretical and applied. If it doesn't include theory, then it doesn't meet “the minimum requirements of an undergraduate degree programme” (p. 1).

³⁸The most recent (2007) benchmarking statements, by subject, are available on the QAA Web site, http://www.qaa.ac.uk/academic_infrastructure/benchmark/default.asp, from which the cases in this section are drawn.

- As a “degree subject,” accounting “requires students to study how the design, operation and validation of accounting systems affects, and is affected by, individuals, organizations, markets, and society” (p. 2) That means an obvious inclusion of the social science disciplines in the program. And as the practice of accounting is impossible without a modicum of knowledge in finance, “the degree structure should also require the study of the operation and design of financial systems, risk, financial structures, and financial instruments” (p. 2)
- So, what subject-specific knowledge and skills will accounting graduates possess? Here are a few consolidated excerpts:
 - ▶ understanding of the contexts (capital markets, firms, public sector) in which accounting operates, and the theories and evidence on the practice of accounting in those contexts. . .
 - ▶ knowledge of current and alternative technical languages and practices of accounting (examples: recognition rules, valuation bases, measurement and disclosure). . .
 - ▶ skills in recording, summarizing, and analysis of transactions, business operations; preparation of financial statements, etc.
- And what “cognitive abilities and non-subject specific skills” will accounting graduates possess? Again, a few consolidated excerpts:
 - ▶ capacity for “the critical evaluation of arguments and evidence,” and the ability to “draw reasoned conclusions” from both structured and unstructured problems arising from data;
 - ▶ “ability to locate, extract and analyse data from multiple sources,” to manipulate data with appropriate statistics (“numeracy skills”) and to use communications and information technology in these tasks; and
 - ▶ the ability to communicate, in the same package, “quantitative and qualitative information, together with analysis, argument and commentary, in a form appropriate to the intended audience.” (p. 3)

In all cases illustrated above, the benchmarks indicate that “threshold graduates will *demonstrate* [italics mine],” i.e. while the institution chooses the form of assessments, there is no question that nobody is a graduate unless they have “demonstrated” at a level crossing the threshold. As for performance standards, the vocabulary follows the ratchet principle: it moves from “basic understanding” to “thorough understanding,” and from “simple” to “complex” situations. Benchmarking statements do not intrude on the canons and traditions of institutional judgment, but they definitely provide a scaffolding for those judgments.

History

While accounting is a regulated occupation, the study of which must produce knowledge and skills required for professional practice, history is a more problematic (in the sense of unregulated-by-external-authority/practice) discipline. The QAA history benchmark committee was very frank about its discipline as not recognizing “a specific body of required knowledge, nor a core with surrounding options” (QAA 2007b, p. 1) As they say, one cannot “freeze the teaching of history in a particular model,” either (p. 2).

So how does a discipline such as history (or literature, for another similar case) proceed? Partly through an appropriate historiography. What does that mean? Considering the empirical facts of the traditional presentation of the discipline, (a) observing that “students will need to devote considerable time to acquiring a knowledge of one or more social sciences,” and (b) setting a generic goal of developing “qualities of mind” that persistently take account of “historical context and evidence,” and which are regarded (properly) as transferrable (p.3).

In fact, the history benchmarks are largely generic, though with no indication of intensity of challenge or threshold measurements of attainment. Examples include self-discipline, self-direction, independence of mind, initiative, and “intellectual integrity and maturity.” The core genres of analytical ability, problem-solving, and communication competence (“structure, coherence, clarity, and fluency”) both orally and in writing, round out the generic field.

However much the history advisory committee to the UK’s Quality Assurance Agency may protest, they *do* specify six (6) requirements for the content of bachelor’s level programs in history, thus benchmarking the delivery of the *program*:

- “Time depth,” i.e. one doesn’t see continuity and change in human affairs unless the temporal breadth of one’s historical study is considerable
- “Geographical range,” i.e. history cannot promote intercultural understanding without requiring its graduates to have studied more than one society or culture
- “Contemporary sources,” i.e. the discovery, identification, and use of materials contemporary to historical periods studied. These are research skills, and they are transferrable
- “Reflexivity,” i.e., something born in historiography and methods courses: critical reflection on the nature of the historical enterprise, “its social rationale” and its “theoretical underpinnings”

- Diversity of the discipline. Think of economic, social, political, environmental and cultural history, or topics in women’s history, or quantitative methods in history. The benchmarking here says that a graduate should have been “introduced to some of these varieties of approach”
- A major independent written project such as an undergraduate thesis utilizing original sources, or an evaluation of conflicting historical interpretations of a major controversy

(QAA 2007b, p. 7)

All aspects of this presentation—generic and content—are then wrapped up in 16 statements of learning outcomes subject to assessment, e.g.

- command of a substantial body of historical knowledge;
- the ability to develop and sustain historical arguments in a variety of forms, formulating appropriate questions and utilizing evidence;
- the ability to gather and deploy evidence and data to find, retrieve, sort and exchange new information; and
- a command of comparative perspectives, which may include the ability to compare the histories of different countries, societies, or cultures

from which departments can select in determining the competence of their students (QAA 2007b, p. 12). Assessment and the judgment of performance plays a significant role in the history benchmarks statement, and the committee is very clear that a student who has not met threshold performance criteria “is likely to have failed to progress at an earlier stage,” hence will not receive the degree.

3.6 Project Polifonia: Qualification Frameworks in the Conservatories

Music was not one of the disciplines included in the Tuning project, but independently, and acting as a Thematic Network, the conservatories of Europe constructed a discipline-based qualifications framework. There are 230 free-standing higher education conservatories or departments of music within multi-purpose universities in the *Association Européenne des Conservatoires, Académies de Musique et Musikhochschulen* (AEC), all with a mission focused on students’ “practical and creative development.” The AEC goes to great pains to point out that while Bologna refers to the “employability” of first cycle graduates, that term covers a larger territory in music than simply working for someone else in the labor market. It is for that reason that the curriculum prepares students to function as free-lancers, as music educators, and to understand what the business of art means and how it works.

There is a significant way in which academies of fine and performing arts (not only those dedicated to music) differ from the standard higher education model: acceptance depends on demonstration of prior acquired skill, and is thus as open to older students on non-traditional paths as it is for students coming out of secondary education. The recognition of prior learning in music or theater or art, then, is part of the selection process, with the vehicles of that prior learning including non-formal learning (outside the education system, but still with a teacher, as in private music lessons) and informal learning (again, outside the education system, and, in music, for example, by participation in a band or church choir). Adult applicants to the University of Music and Performing Arts in Vienna (MDK), for example, take an oral interview to determine how much they know about music theory (which they might pick up from a course at a less-than-university-level conservatory) and to assess their “music personality,” by which is meant, as Ester Tomasi-Fumics of MDK and former Project Polifonia manager explained, “how they think about music.”

Project Polifonia, organized by AEC, produced its version of the Dublin Descriptors for the three degree cycles, and some key differences (more amendments than “differences,” really) are worth noting. For example, the knowledge application criterion for graduates of the first cycle degree (Bachelor’s) reads as follows, with the departures from the generic phrasing in italics:

“can apply their skills, knowledge, and *artistic* understanding *in the field of music* in a manner that indicates a professional approach to their work or vocation, and have competences demonstrated *practically/creatively as well as* through devising and sustaining arguments and solving problems within their field of study” (AEC 2007, p. 2)

When asked what “sustaining arguments and solving problems” means in music, the responses from both the University of Music and Performing Arts in Vienna and the Royal Academy of Music in Stockholm cited composition and historical interpretation. When asked about what the communications criterion would mean in music, it turns out to be more than writing program notes—it includes non-verbal communication as well, or, as the Lipinsky Academy of Music in Wroclaw, Poland, phrases it, projecting to an audience “. . .material and musical ideas in a wide variety of performance settings.” And problem solving in “unfamiliar environments” (a second degree cycle criterion under the Dublin Descriptors) might be judged in music performance by a student with a classical repertoire who must develop a jazz repertoire.

When we come down to the level of Tuning within the first degree cycle, the reference points offered by Project Polifonia are worthy of emulation in other disciplines where analogues can be identified. For example, by the completion of the Bachelor’s cycle, students should *demonstrate*:

- Repertoire skills: performing a representative repertoire of their principal study area, and in a variety of styles;
- Ensemble skills: interacting in ensembles of varied size and style;

- “Effective practice and rehearsal techniques”;
- “Score reading skills sufficient both for understanding the music and for fluent sight-reading”;
- “Fluency in recognising by ear, memorising and manipulating the materials of music”;
- Verbal skills in talking and writing “about their music making”;
- Improvisational skills, i.e. shaping and/or creating music “in ways which go beyond the notated score,” and understanding “of the patterns and processes which underlie improvisation”;
- Knowledge of “the common elements and organizational patterns of music . . . and their interaction”;
- Knowledge and understanding of “the main outlines of music history and the writings associated with it”;
- Knowledge of “musical styles and their associated performing traditions”;
- Understanding of “how technology serves the field of music as a whole and . . . the technological developments applicable to their area of specialisation”; and
- “Some knowledge of the financial, business and legal aspects of the music profession.” (AEC 2007, pp. 12-14)

We could go on through criteria for autonomy, psychological understanding, critical self-awareness, communication and its contexts, and research—yes, research (literature, critical analysis, documentation, etc.). But even more than its disciplinary qualification framework, the case of music opens up the relationship between credits, outcomes, assessments, and standards that constitute the third major Bologna theme of this presentation. When we turn to an explication of credit issues in Part 4, we will come back to the case of music and the literature produced by AEC and Project Polifonia.

What “Tuning Central” realized even after three phases of work in its core disciplines was that the model wanted deeper considerations, including:

- validation methods for the recognition of prior learning within the Tuning context;
- the inclusion of “intermediate level” indicators of student learning (and not merely summative indicators);
- the development of reference points for assessment; and
- ways to use both the process reference points and learning outcomes templates in quality assurance. (Rijksuniversiteit Groningen 2006).

In applying to the Socrates program for a 4th Phase support, Tuning Central also pointed to the obvious: that if an innovation does not fully penetrate the departments and live on the pulses of faculty, the envisioned reforms will lie fallow. A pretty design without practice, without “the active support of change agents, directors of studies etc., and the teaching staff at the programme level” (p. 26), is an empty exercise. So no matter how many institutions and faculty have

participated in Tuning (or Tuning through the Thematic Networks) to date, a lot more diffusion lies ahead.

3.7 French Dossiers and UK “Program Specifications”: Not Exactly “Tuning”

The French, as the reader recalls, built a national qualifications framework in a national program/discipline/field registry. Simply because the dossiers submitted by every major in every institution of higher education include learning outcomes, however, does not mean that they have gone through a formal Tuning process. Some have (French universities are well represented in both the project of “Tuning Central” and in the Thematic Networks that have engaged in the Tuning process); some have not. The *Référentiel de certification* section of the dossier template seems more oriented to compatibility with the QFEHEA than with Tuning-type learning outcomes templates. The language may change somewhere between Calais and Dover, and the certifying agencies may work with distinctly different degrees of authority, but the core elements of qualification frameworks are largely harmonious when moving from France to England (remember: Scotland is a separate case and authority, and so, increasingly, is Wales). The linking element is that of “program specifications.” These are one of the four legs of the British Quality Assurance Agency’s “academic infrastructure” (Quality Assurance Agency 2006), and are worth looking at both in their own right and in comparison with France’s RNCP registry as that process, too, includes program specifications. The fact that program specifications are non-prescriptive in Dover and mandatory in Calais is less of a concern in this presentation.

The UK program specifications emerged from recommendations of the influential *Dearing* report (1997) and, by 2006, obviously needed both refinement and adaptation to changes in UK contexts including the new “short-cycle” Foundation degree (see Section 8.3 below), Bologna and allied European developments (the QFEHEA, Guidelines for Quality Assurance, and Diploma Supplement are explicitly marked), and particular UK legacy processes such as external subject review, the QAA’s own audit process, and “continuing development of other aspects of the Academic Infrastructure.” (Quality Assurance Agency 2006, p. 1).

What are “programme specifications”? “A programme specification is a description of the intended learning outcomes of an HE programme, *and* the means by which the outcomes are achieved and demonstrated.” (QAA 2006, p. 2). It’s more than an issue of informing student choice: program specs are also intended to guide external audit and review. They can be presented in outline form, narrative, or in templates developed by individual institutions, a choice that is not available under the French RNCP structure. Not only are they a cog in the accountability wheel, but their development “can provide a stimulus to teaching teams” to better match design and delivery to learning objectives. They are distinct from subject benchmark statements (see the discussion of these in relation to the “Tuning” process, pp. 57-60 above) and degree qualification frameworks, though it is obvious that they provide more detail, texture, and nuance. It is also obvious that they can be used in different ways by prospective students,

current students, recent graduates, faculty, program reviewers, employers, and bodies that accredit programs leading to regulated occupations.

Exclusive of common boilerplate, compare the following list of suggested information for program specifications (I am condensing them) to the requirements of the French registry program dossier:

<u>Dover</u>	<u>Calais</u>
Criteria for admission	Routes of access to the program
Aims of the programme, subject benchmark statements	Targeted qualifications and qualification levels
Programme outcomes: knowledge and understanding; skills and other attributes	<i>Référentiel de certification</i> (see p. 39)
Teaching, learning, and assessment strategies to enable outcomes to be achieved and demonstrated	[No parallel statement]
Programme structures and requirements, levels, modules, credits and awards	Same, plus articulation (vertical and horizontal) with other certifications
“Mode of study,” language of study	[No parallel statement]

Obviously these are not identical statements, but they share a critical core of information, and, given the nature of the French 4-year renewable program contracts with the institution of higher education, one also finds in Calais both a mandatory history of the creation of the program and a mandatory plan of action to be pursued by the program following review.

What do UK program specifications look like in practice? Taking the same approach used above with Jean Monnet in St-Etienne for the French registry, we invoke a short-cycle Foundation degree (analogous to a U.S. Associate of Applied Science) in Multimedia Design and Practice at the University of Northumbria at Newcastle. As will be noted when we discuss short-cycle degrees (see pp. 138-148 below), the UK Foundation degree should prove to be an efficient transfer vehicle.

This Foundation degree is a franchised offering through Newcastle College, a large and distinguished Further Education institution, and the program is delivered on site in both full time and part time modes. In Bologna terms, there is a lot of the social dimension in the purpose of the program in terms of widening participation, as Newcastle serves adults and students in special bridge programs between secondary school and tertiary education. The program specifications are substantially derived from employer consultation and contributions, e.g. identifying subject-related skills such as the “ability to apply design software” and understanding of accessibility requirements of those with disabilities (Quality Assurance Agency 2005, p. 3). The program specifications also require learning work placements, and indicate

their oversight. Entering students also know that they must prepare a Personal Development Plan (PDP) to guide them through and beyond the formal course of study. Learning outcomes are specified under knowledge and understanding, intellectual skills (including “analytical and imaginative enquiry,” analysis and interpretation of visual information, and proposing “original and viable solutions to a design brief”), practical skills, and transferable skills (including time management, and effective communication in work-based contexts).

The assessment section of the program specifications spells out formative assessment through group discussions including students, tutors, and practitioners, and individual tutorials in which the tutor examines and discusses the student’s portfolio at mid-semester and end-semester. The specifications are more elaborate about summative assessment, as this process references the parent university’s (Northumbria) “standard Assessment Regulations.” Portfolios, written tests, orals, and “witness statements by competent observers” are referenced to “published assessment criteria, which are formulated with reference to the learning outcomes.” (QAA 2005, p. 11)

This Foundation degree at Newcastle College, the Further Education institution, can be a terminal credential. But what this particular course of study adds is a “bridging programme” to the BA honors degree in Multimedia Design at the parent university, Northumbria. Basically, the bridging program acculturates the student to both opportunities and demands of a university environment. It includes an interactive project, research resulting in academic writing, and advanced IT skills. The bridging program option is spelled out within the program specifications.

What one takes away from this model of program specifications is the combination of assessment regulations and bridges tied to learning outcomes as a de facto vertical transfer path, another flexible participation route. But the success of paths such as this one depend on how learning outcomes are presented.

4. The “Bologna-Code”: Learning Outcomes and Competences

Bartosch (HRK 2008, pp. 18-19) aptly dubbed them “the Bologna-Code.” Wherever one turns in Bologna qualification frameworks, Tuning, benchmarking, and (as will be noted in a moment, credits), we are surrounded by references to “learning outcomes” (more specific and discipline centered) and “competences” (more generic cognitive and skill operations and behaviors).³⁹ These are familiar terms in U.S. debates on accountability and accreditation, though they are treated in comparatively superficial ways, and more as slogans than representations of reality

³⁹ “Learning outcomes” were not directly included in the Bologna Declaration itself, but as the Bologna Process matured, they became the principal fulcrum in describing the results of education.

on our side of the Atlantic.⁴⁰ They are also separate but fundamental constructs in the dynamics of assessment, no matter what form assessments take (written/oral/online examinations, performances, exhibits, field work, papers, design products, etc.), and in all higher education systems. As the Nordic Quality Assurance Network put it, they are tools to “define a learning and assessment process and its product” (Gallavara *et al* 2008, p. 12), i.e. you cannot leave assessment out of the construct. In whatever form, assessment should be a teaching and learning tool, but it is also a certifying tool, allowing the student to *demonstrate* grasp of knowledge, mastery of skills, and whatever else a course of study sets forth as a desired learning outcome or competence. As Admodt and Hovdhaugen (2008) insist, the connection between assessment and learning outcomes is an implicit engine of qualification frameworks. The learning outcome or competence does not live until it is observed and assessed. And it is observed in something the student *does*, to which criteria of performance can be applied. At the same time (and as observed by the CoRe evaluation of Tuning templates), it takes a considerable change in faculty culture to adopt a language of learning outcomes, one reason that the desired convergences of Bologna will continue well beyond 2010 (Veiga 2005).⁴¹

4.1. The Centrality of the Verb

Two parts of speech—the verb and the adverb—are constitutive to this assessment dynamic, to the demonstration that learning outcomes have been attained (and hopefully internalized) and/or competence advanced, and that the student is basically qualified to build on that learning and competence in other contexts or higher levels of challenge. The verb indicates what the student *did* to demonstrate. . . and the adverb indicates *how well* or with what nuances the student demonstrated. As the critique of learning outcome statements in the Tuning project by the CoRe project indicated (see pp. 56-59 above), a learning outcome or desired degree of competence must be phrased in operational terms so that it can be assessed, and demonstrated that too many learning outcome and competence statements in the programs examined were *not* so phrased.

So what do the Bologna qualification frameworks ask students to do? What are the verbs that not only prompt assessment activities but that inform students of the cognitive activities in which they will truly engage in a program in order to qualify for a degree?

Take, as an example, the Scottish Qualifications Framework (SCQF). The most frequent verbs—beyond the core—from levels 9 through 11 (ordinary bachelor’s through master’s degree)—are “evaluate” and “practise” (not in the sense of “rehearse,” rather in the sense of

⁴⁰There are, of course, notable exceptions, e.g. in U.S. engineering education, and in the certification system in information technology (though that is global, and not a U.S. private preserve).

⁴¹In a personal communication, Veiga adds that outside “the political discourse” of Bologna, one has yet to find a broad European faculty population fluent in the language of learning outcomes.

“apply” and “execute”).⁴² Verbs are the anchors of assessment, and the more discrete the action carried by the verb, the more students know what they have to *do*, and the more faculty understand of what they are preparing students to do. “Use” and “show” don’t mean much, don’t offer that guidance. “Evaluate” does, and it takes different tones in different fields, i.e. every broad disciplinary area has a paradigm of evaluation. For academic performance and assessment, we need precision in our verbs: “conceptualize” doesn’t do it, whereas “identify” and “define” are activities to which one can point. Of course that does not say *how well*: how accurately and completely you “identify,” how detailed yet balanced is your “definition.” When learning outcomes enter the stream of teaching, we need such markers of degree, and the adverbial gloss provides it.

Perhaps the best illustration of what individual institutions have done in bringing consciousness of the critical role of verbs in simultaneously restructuring curriculum, shaping the ECTS credit system, and reflecting a national qualifications framework is that of the *Fachhochschule Aachen* in Germany. FH Aachen developed a vocabulary of learning outcomes and assessment criteria that was both structured around the Dublin Descriptors and the Tuning generic cognitive frameworks, and anticipated the German national qualifications framework in terms of subject-matter competence, methodological competences, systemic competences, and social competences. (See pp. 33-34 above) The vocabulary consisted of verbs that described the actions students could take to demonstrate competence in the category at issue.

Figure 7 presents the author’s compilation of FH Aachen’s 20 most common action verbs reflecting student performance under four (4) lines of cognition and cognitive operations: knowledge, understanding, analysis, and synthesis. One could say that asking students to demonstrate factual knowledge or understanding of a field could elicit all of the cognitive activities listed below, and that the range of their communication skills would also be evidenced in the process. One could say that the understanding of a field could elicit all of the cognitive activities listed below, and that the range of their communication skills would also be evidenced in the process. One could say that the lists are permeable, e.g. that students who justify (*begründen, rechtfertigen*) an observation or position in the course of responding to an assessment prompt are doing so in an analytic mode that demonstrates something deeper than knowledge, namely, understanding, therefore justifying the verb on two lists. One might question the exclusive placement of some terms, e.g. “modify,” under synthesis. One might complain about nuances of translation, e.g. *darstellen* is “portray” under knowledge and “represent” under synthesis. Or nuances within the same cognitive mode, e.g. differentiate (*trennen*) and distinguish between (*unterscheiden zwischen*).

⁴²See an account of the Scottish system that highlights the verbs invoked by the SCQF in *National Qualifications Frameworks Development and Certification* (Bologna Working Group on Qualifications Frameworks 2007).

**Figure 7:
Action Verbs Reflecting Student Performance Under Four Cognitive Operations**

<u>Knowledge</u>	<u>Understanding</u>	<u>Analysis</u>	<u>Synthesis</u>
characterize	adapt	compare	arrange
correct	clear up	conclude	assemble
define	combine*	contrast	associate
describe	debate	critique	combine*
establish	deduce	delineate	create
identify	defend	diagnose	draft
infer	demonstrate	differentiate	explain
list	depict	discover	formulate
match	distinguish	distinguish between	generalize*
measure	estimate	elucidate	generate
name	expand	evaluate	instruct
organize	explain by example	justify*	integrate
outline	forecast	mete out	modify
point out	generalize*	organize	propose
portray	illustrate	recognize	reconstruct
recognize	interpret	refer to	re-examen
recollect	justify*	select	reformulate
recount	reformulate	sub-divide	represent
repeat	transform	unbundle	structure
select	translate	utilize	substantiate

*Verbs used to indicate cognitive operations in more than one category.

Source: Schermutski and Peters-Burns 2004, pp. 18-19 (author's translation).

But the fact is that the very attempt to think about what students do has brought faculty, in this case, into the intersection of language and assessment. Cognitive scientists would say that these verbs are part of the algorithms that transform input to output; philosophers of mind would call them epistemic operations that, under generic tasks such as “understanding” or “synthesizing,” are often reciprocal. Whatever meta-language is used as a template for these relationships, if faculty are indirectly impelled to reflect on them, they will understand better how a learning outcome becomes a learning outcome, and what prompts or settings can be used to kick the algorithms into gear so that the students can “demonstrate” their mastery of learning objectives. Whatever quirks one finds in this example, FH Aachen has done an exemplary job, a contemporary reflection of Benjamin Bloom’s 1956 verb-loaded account of the cognitive domain one worthy of emulation in the other languages of Bologna-participating countries.

4.2 An Essential Grid

While qualifications frameworks are set forth on the very generic levels of the Dublin Descriptors, the Tuning process demonstrates that they are just the beginning of creating a grid of reference points representing “an optimal mixture of subject-related knowledge and necessary methodological and key competences” (Müller 2008, p. 10). As the Tuning project’s application for a grant from the Socrates-ERASMUS program for Tuning IV contends, this grid has yet to penetrate fully at the departmental level within institutions, let alone to many faculty. Reforms of curricula and development of profiles to meet qualification framework and QA standards will “only be possible with the active support of change agents, directors of studies etc., and the teaching staff at the programme level” (Rijksuniversiteit Groningen 2006, p. 26). To get there, one needs first to involve faculty in reflecting on the meaning of learning outcomes and competences, and prioritizing them. The more such involvement, the greater the degree of ownership and the higher the chances for full development.

To illustrate the passage from generic Dublin Descriptor to the discipline specific, we take a truly international industry, hotel management. The degree programs are usually entitled “Hospitality and Tourism Management,” and, in Europe, are found principally on the south side of the binary line (though in some cases, depending on their academic components, in universities as well). Rexwinkel (2006) conducted an international survey (in this case, 9 institutions in 7 countries—including the U.S.—participated), and asked respondents to take each of the five components of the Dublin Descriptors for the first cycle degree and translate them into qualifications for a first cycle degree in hospitality management. Figure 8 offers the consolidated translations from these institutions for the Dublin qualifications line, “knowledge and understanding”:

Figure 8: From Dublin Generic to Program Specific in Hospitality Management

<u>General descriptor qualification</u>	<u>Program specific qualification</u>
. . .demonstrated knowledge and understanding that builds upon and supercedes the general secondary education. . .	[knowledge and understanding of] human resource management principles
. . .and are typically at a level that whilst supported by advanced textbooks,	research methods and techniques in organizational sciences
includes some aspects that will be informed by knowledge of the forefront of their field of study.	sustainable environmental issues within the hospitality industry.

Other qualifications criteria for hotel management under the other five components of the Dublin Descriptors included:

- application of risk management strategies
- carrying out applied research, such as feasibility studies
- recruiting and selecting staff using function requirements
- presenting a business plan to a bank
- communicating with colleagues in English, French, German, and Spanish!!!

Certainly, the program specific qualifications criteria are generic in their own regard, and one would hope that local faculties could provide discrete, criterion-referenced, and operational statements of what it means to “understand” human resource management principles, research methods, and sustainable environmental issues. One can imagine a case study in risk management, a feasibility study, a simulated staff selection exercise, and a brief oral language proficiency assessment—all as producing indicators of learning outcomes. The Tuning process would turn to the faculty, and kindly request them to “fill in the verbs! Tell students what they will *do* to demonstrate mastery of these components of preparation for hospitality management!

What happens when the reference is not directly to the Dublin Descriptors of the QFEHEA, but to parallel generic competences that can be mapped to the Dublin Descriptors? We turn again to the *Fachhochschule Aachen*, this time in its joint project with seven other German institutions of higher education to develop and integrate the European Credit Transfer System with a new modular presentation of the engineering curriculum (BLK 2001). FH Aachen draws on a Tuning model, and posits the most generic levels of competence as:

- knowledge and its application
- acquiring, processing, and assimilating information
- use of knowledge both within a field and in connecting across fields
- generating knowledge (development of new solutions, innovative products and services, informed questioning)

These competences cut across specific discipline-oriented learning outcomes on a grid. The grid, in turn, guides the development of a *Kerncurriculum* so as to answer the question: Which products of learning (*Lerninhalte*) for which universities are responsible are so essential that no one would be authentically considered a graduate without them (Schermutzki, Peters-Burns and Kluss 2004, p. 12)? A survey of faculty, graduates of the engineering program, and employers (a deliberate mirror of the Tuning consultation process) then produced agreement in response to that poignant question for the following elaborations of the generic, i.e. out of 30 products of learning, all three parties agreed that the following nine were the essential *Lerninhalte*:

- Ability to work independently
- Analytic and synthesizing skills
- Application of knowledge in practice
- Basic IT knowledge
- Capacity for learning (*Lernfähigkeit*)
- Grounding in the discipline
- Information management (assembling and analysis)
- Problem-solving skills
- Research skills.

A different discipline group might have agreed to other *Lerninhalte* on the list of 30, e.g. fluency in a foreign language, managerial skills, or initiative and entrepreneurialism. Some of these outcomes are directly taught, and some indirectly elicited and developed in the course of study. Where faculty in Bologna-participating institutions come face-to-face with reflecting how these “products of learning” are taught or elicited, how they play out across a grid including discipline-specific outcomes, is in what sounds to us as a mundane task of assigning credits. Under Bologna, with a different kind of credit system in tow, this task is hardly mundane.

5. The Core of Bologna, Part III: The European Credit Transfer and Accumulation System (ECTS), A Different Kind of Currency

In presenting qualifications frameworks and disciplinary Tuning, we purposefully sidestepped the third core pillar of the Bologna Process. It is now time to give the European Credit Transfer System its due. The Bologna approach to credits is intertwined with qualification frameworks, curricular reform, and quality assurance. Both Project Polifonia and the *Fachhochschule Aachen* will be revisited to illustrate how those connections work.

The college credit system in the United States is 100 years old, was developed as an extension of the Carnegie Unit credit formulas for secondary schools, and was designed to determine the productivity of institutions and to enable the analysis of the costs of instruction (Shedd 2003). The U.S. credit is a temporal metric, calculated for each discrete course by reference to the theoretical or scheduled number of hours of instruction per week. It is thus based on faculty time. Public university systems were leaders in adopting and spreading the credit system as a degree qualifying metric as well, i.e. when students accumulated a set number of credits, distributed according to institutional standards for general education, major, and electives, the requirements for a credential award were said to be met.⁴³ In contrast, until recently, most European systems of higher education did not divide their curriculum into discrete course

⁴³A small number of private colleges and universities still do not use the credit system, rather indicate the number of discrete “full” courses a student must pass to qualify for the degree.

modules (though one always found separate lectures and seminars), and did not employ a credit accumulation system or a credit-based award criterion.⁴⁴

Starting in the late 1980s, and picking up steam across Europe in the 1990s, one notes a drive to establish a common currency of academic attainment like the Euro (I am sure some will shudder at that analogy). But provided you know what they mean, that's what credits do: you can bank them as markers of general attainment, at least in the world of post-compulsory schooling where the issuers of this currency are so varied. European countries looked inside their post-compulsory education systems and saw a wilderness of credentials and qualifications, with very little relation between them. What they saw inside became a dense forest when they looked to their neighbors. In different ways, they all asked, "can we arrive at a set of definitions and principles about the meaning and use of credits to create a medium that allows for a ledger of accumulation, transfer, stop-out-and-return, and shared cross-border learning?" As pointed out, while some countries already had developed such a currency for internal coherence and accounting, others began to develop parallel systems, and the ERASMUS program stepped in (nudged by UNESCO and the European Union) with the original form of ECTS to enable students to spend learning time in another country without loss of learning currency.

For example, in a formal "temporary transfer agreement" or "contract of studies" between the University of Uppsala in Sweden and the University of Trento in Italy, a Swedish student going to Trento to study Alpine ecology would be credited with the course in Sweden based on a statement of learning tasks and workload in Trento for which ECTS was the symbolic representation. Uppsala and Trento could go their merry ways outside of this temporary transfer, i.e. neither university had to operate on a credit system, but for the sake of the transfer event, they did. The quality assurance that allowed the recognition of the Trento experience lay in the learning tasks of the course and an indication of the number of hours of student effort required by those tasks. Everybody signed the temporary transfer agreement—the two institutions and the student. It was a *de facto* contract.

When one transforms the basis of this transaction into a cumulative currency, one widens the application beyond isolated transfer events to degree-qualifying momentum. The Universities UK's "Scoping Group" would add that the virtue of credits lies in enabling students "to break off and start again without having to repeat learning," motivating students by recognizing "achievement along the way," and offering a structure that makes "flexible curricula" possible (Universities UK 2004). The UK Scoping Group was not alone in judging the multiple applications of the ECTS currency: tracking progress towards a credential, enabling program and institutional transfer, accounting for learning in non-formal settings through the assessment of prior learning, improving public understanding of different levels of credentials, and facilitating

⁴⁴ Examples of exceptions: Sweden's system has been credit-based since the 1960s, and Scotland changed over to course modules and credits in 1985.

international recognition of learning. Everyone has bought in: ECTS is a condition of membership in the Bologna club. That said, it is still a work in progress.

The Bologna version of ECTS as an accumulation system ideally wrung out all the differences of existing credit systems, so that even if there was a 180 SCOCAT requirement for a first cycle degree in Scotland and a 120 *poäng* requirement for a first cycle degree in Sweden, and the SCOCAT had to be spread over four levels of course work, they both could be translated into the Euros of ECTS, so to speak, and the student with a first degree from Uppsala could move to a Master's program at Strathclyde in Glasgow without breaking stride.

In its original formulation under Bologna, there are three components to the assignment of ECTS credits: student workload, learning outcomes, and grades. That combination has proven to be a difficult brew,⁴⁵ and, in practice, student workload dominates. Grading systems were much too varied and entrenched in tradition to standardize, and are really a secondary issue when qualification frameworks basically set lines for threshold performance as conditions for the award of credentials. A different perspective was offered by Einar Lauritzen of the University of Uppsala in Sweden when he observed that the more discrete learning outcome statements offered in our presentation of qualification frameworks or Tuning are “not at home in a credit system.” Put another way by Anna Laub of the University of Vienna, “credits cannot carry all messages.” The UK's Scoping Group complexifies these judgments, pointing out that “it is impractical to try to quantify the number of credits awarded as a direct measure of the learning outcomes,” and that “credit alone does not define academic standards,” but adds that one also needs an indication of content level and curricular context. As ECTS was introduced as an accumulation metric in Bologna countries, indirect routes had to be found to connect credits to learning outcomes. One way of stating the reigning principle is that the credit currency recognizes that the student has passed through a gateway of acceptable performance in a particular course module, but the number of credits awarded is not based on either a description of learning outcomes or the quality of performance (grades), rather on the temporal workload associated with reaching that benchmark. In the language of Bologna, credits are a “notional device,” something that can be measured in a consistent manner. We simply don't have the tools to measure hundreds of stated learning outcomes the same way. As we will see, there is a tension here that has not been resolved across all Bologna systems, though some have made notable efforts to do so.

⁴⁵The inclusion of a recommended standardized grading system and distribution of grades as part of ECTS protocols was, to put it politely, a tactical mistake, one that drew instant rejection from a number of countries. The existing grading systems of Bologna-participating countries were—and remain—more varied than their degree structures.

Nonetheless, as a 2005 survey of deans and directors of studies in five disciplines (medicine, law, teacher training, engineering, and history) across Bologna participating countries indicated, 73 percent of respondents indicated that all their curricula were defined in terms of ECTS, and another 18percent indicated that part of their curricula were so defined (Huisman and Witte, 2006, p.19). The European University Association's survey for *Trends V* (2007) took a different approach, distinguishing between the use of ECTS for transfer and accumulation purposes. For transfer, 75 percent of their institutions reported using ECTS and another 11 percent employed "a compatible system" (such as those in Scotland and Sweden). For accumulation (the principal goal of the Bologna modification of ECTS), those numbers were 66 percent and 18 percent. By 2007, then, the proportion of institutions using ECTS or another credit metric translatable into ECTS, and for purposes that we, in the U.S., take for granted, was 84 percent. At least on the surface, that's a fairly rapid adoption, though whether they are used according to guidelines is an open question.

5.1 Student Workload: Turning the Tables on the Assessment of What Goes into Learning

The ECTS system begins with a very different orientation from that used in the U.S. We base our credit assignments on faculty contact hours, with the assumption that in relation to each faculty contact hour, the student engages in other types of learning activities. ECTS uses the student as the primary reference point, asks how many hours the typical student must spend to accomplish the various tasks in a course module, and converts the total to credits.

A better formulation of this ideal, and one that connects workload with learning outcomes, is offered by the *ECTS Users' Guide 2008* (European Commission 2008), as the

"workload students need in order to achieve expected learning outcomes. Learning outcomes describe what a learner is expected to know, understand and be able to do after successful completion of a process of learning. They relate to level descriptors in national and European qualifications frameworks." (p. 6)

One instantly sees how ECTS becomes a key gear in the accountability engine that starts with qualification frameworks and why the mere consideration of this approach to credits results in curriculum modifications and reform. If executed faithfully, this approach requires faculty to detail each expected learning outcome and the learning activities in a course that bring students to that outcome, and *estimate* the number of hours the typical student would require to complete those activities successfully. It is recognized that more able students may require fewer hours and some students may require more. And Tuning also recognizes that context obviously makes a difference in time-on-task, e.g. the case of a French student versus a Dutch student both studying Spanish (González and Wagenaar 2008, p. 55). Granting these variances, the result of an estimate for the average student might look as follows for a science course with two lectures, one laboratory, and a tutorial section each week:

Attending lectures (14 weeks)	28 hours	Exam preparation	16
Background reading for lectures	28	Examinations	4
Tutorial section	14	Paper writing	24
Laboratory preparation	14	Laboratory reports	21
Laboratory time	28		
		Total:	177 hours

How many ECTS credits is this workload worth? The divisors differ from country to country, but are mostly in the range of 25–30 hours per credit. The divisors are determined by each nation's academic calendar year (which ranges from 34 to 40 weeks across Bologna-participating countries), an estimate of the total number of hours in an academic calendar year available for study (the range, again based on the number of weeks in each system's academic calendar year, has been 1500–1800), and a Bologna Process standard of 60 ECTS credits per academic calendar year. So the course above would be worth six or seven credits, depending on the system in which it was offered.

When disciplines undertaking the Tuning model get down to the level of the individual course module, they take the traditional syllabus, throw it out, and replace it with first, a list of competences and knowledge to be developed, then, against each expected learning outcome, they write out discrete learning activities, estimated student work time, and mode of assessment. An excerpt from an Organic Chemistry Practical Laboratory targeted at 2nd year bachelor's degree majors, and with 15 laboratory experiments, serves to illustrate here (González and Wagenaar 2005, p. 178):

<u>Learning Outcomes</u>	<u>Educational Activities</u>	<u>Estimated Student Work Load (hrs.)</u>	<u>Assessment</u>
Reactivity and selectivity. Characterization of mixtures. Correct use of lab apparatus.	Experiment: free radical substitution of hydrocarbons.	8	Written report. [criteria]: quality of report.

The point is not whether you, as a chemistry professor, would run this as one of 15 labs accompanying your Organic Chem lectures, or whether you would express the desired learning outcomes in terms of the knowledge and skills cited and their relation to the primary competence of “applying knowledge in practice” that you seek to develop in students, or whether the whole enterprise, including the writing of the lab report, takes 8 hours. You could write it another way, but Tuning, inseparable as it is from ECTS, means that you would engage in this process. The Tuning model is confident that “teaching staff normally has a rough idea of what it can ask a student to do in a certain amount of time in a certain program” (Gonzalez and Wagenaar 2008, p. 71). It is also confident that as soon as faculty reflect on that rough idea for a particular course

and start drawing its boundaries and sectors in more detail, they will rethink its design and execution—let alone its relation to other courses in the degree program.

The Tuning guidance documents provide numerous examples of discrete educational activities and their estimated student “work time” set in blocks to match statements of desired learning outcomes. Figure 9 is an aggregated account of a hypothetical course in Intercultural Communication in Multicultural Societies offered in one of these documents (González and Wagenaar 2005). This is not a sequenced syllabus, though the lectures are numbered. Cutting across all blocks of learning outcomes (e.g. identifying the dimensions of cultural differences in approaches to space and time), here is what we see for this imagined 5 ECTS (125 work time hours) course:

**Figure 9:
Student Workload in Hypothetical Social Science Course**

Lectures	17 hours	Presentations	2.5 hours
Group discussions	2	Short papers	2
Class discussions	4	Field assignment	3
Reading assignments	40	“Learning report”	4
Class seminars on reading assignments	2.5		
Writing and presentation of group projects	48		

Unless one is concerned with overload, how we judge this distribution of tasks and time for a social science topic is a secondary issue (the author doubts, for example, that a field assignment consumes only 3 hours, and that it takes only 4 hours to write a final “learning report” paper for a class, no matter what its subject). The context of the class, along with its subject matter and desired learning outcomes, drives the initial selection of activities—and all this is determined by the instructor and the instructor’s department, not some external bureaucracy. The effect of thinking through what you are asking students to do to reach the learning objectives for the course, and how much time it takes them to do it, refines the selection of learning activities.

Three major questions about ECTS in practice inevitably arise:

1) Must the same course, offered in institutions in the same national system, carry the same number of credits? Answer: No. For example, four institutions in Germany, lead by the Universität Leipzig, committed to development of a convertible credit system over a three year period (2001-2004) for course modules in IT, exploring the particular applicability of credit formulas based on student work load (*Arbeitsbelastung*). Even in this alliance it was agreed that the assignment of credits does not have to be the same, but comparable. They agreed to data systems, development of indicators based on credit-points, tests of convertibility of credits

both within the network and with institutions in other countries, target dates for completion, and the mechanics of maintenance and updating of their results (BLK Programm Verbund 2001⁴⁶). While no one has tracked the extent of this type of exercise, conducted outside of a formal Tuning project, one suspects that it is increasingly typical within disciplines in national systems converting to or refining ECTS.

2) Do most faculty in the 46 Bologna countries engage in a careful analysis of the relation between desired learning outcomes, learning tasks, and student workload? Not at this point in time. Even if 66 percent of universities in the 46 Bologna countries use ECTS, and another 18 percent use an ECTS-compatible system, as the 2007 *Stocktaking* report sponsored by the European Commission indicates, the credit assignment water finds the easiest ways to flow downhill. And Vice Rector Eva Werner of the Fachhochschule Krems in Austria contends that the instinctive approach of faculties (departments) to assigning credits—we have X number of courses and students taking 30 credits per term, so how do we distribute the credits?—is not a wholly honest approach, but is mechanical and convenient, hence has become the default behavior, though she trusts that, over time, this default behavior will fade in favor of more rigorous reflection. Aileen Ponton of the Scottish Credit and Qualifications Framework authority would add that when an annual range of 1500–1800 hours is offered, “and certainly when that range is put in legislation, faculty and administrations propel themselves toward the margins of the range,” and follow mechanically.

For example, the senior honors courses in history at the University of Edinburgh in Scotland are weighted at 60 Scottish credits (half the credit time for that year). When asked by an external review group why these courses carried that weighting, the faculty responded that the courses were devoted “to the development of documentary analysis skills, the use of primary sources, and the close reading of texts, which are all time-consuming” (University of Edinburgh 2002)⁴⁷ One would have to press the faculty further to determine just how they calculated “time-consuming” by student learning activity. One would like to express confidence that they could do so, for no instructor can imagine desired learning will take place if there is not enough time to engage in learning’s tasks.

By 2007, it was evident that too many institutions were either robotic or sloppy in implementing the ECTS system. A widely-distributed “User’s Guide” to implementing the ECTS system in an institutional context (European Commission Directorate 2004) was thoroughly outdated, and in

⁴⁶ Available at www.informatik.uni-leipzig.de/theo/lpv/pgs/dt/Aktuelles/anl/AL.01.pdf BLK (*Bund-Länder-Kommission*) once a commission that negotiated educational issues between the federal government in Bonn and the individual German states (the *Länder*) no longer exists (Johanna Witte, personal communication).

⁴⁷ Appendix 5, p.1.

mid-2007 the European University Association and the European Student's Union agreed to produce a current document, in consultation with the Bologna Follow-Up Group and other stakeholders. While the European Commission produced a refined *ECTS User's Guide* (European Commission 2008), in part to make sure the rules were tied to the lifelong learning objectives of the Lisbon Strategy, the EUA/ESU effort became a work-in-progress-without-resolution, one that began with some contention over estimates (even in ranges such as 1500–1800) of total annual workload hours for the average student and conversion formulas such as 30 hours=1 ECTS credit. Formulas, it is said, make it too easy for faculties to assign credits to course modules without thinking about precise learning activities or outcomes. A March 2007 "*Flash Eurobarometer*" survey of faculty in 31 countries (European Commission 2007b) found that 80 percent supported the use of ECTS in all programs. One can be somewhat cynical about that response: if the process is easy and just about everyone is doing it, then it is difficult not to join the club.

3) Does anyone ever ask for empirical evidence of how much time students actually spend on the various learning activities in a course? Yes, but, outside the second phase of any Tuning process, the practice is not widespread, and the results of student surveys are highly variable. Juliana Kristl, Pro-Rector at the University of Ljubljana in Slovenia, observes that there are no real rules on what proportion of credits are truly workload based. So the procedure at Ljubljana is for a team of faculty and third and fourth year students to make the initial estimates of workload, and assign the credits. The results are then evaluated on an annual basis by the same group that made the original decision. By evaluation is meant soliciting student testimony as to how much time they actually spent doing X, M and Q. Prof. Kristl teaches a course in pharmacy technology with 150 students, and another in nanotechnology with 25 students. When students were asked for a workload accounting, the difference between the two courses was less than a 0.5 Standard Deviation Unit, i.e. there was a great deal of consistency.

But elsewhere in Slovenia, there have been contrary estimates. A research project on actual student workload in a smaller (than Ljubljana) unnamed university was conducted, with weekly reports from students over the course of a complete academic year (2005–06) in selected courses, including those delivered on-line (Stepišnik, Kolar, Širca, and Lesjak 2007). The findings start with the fact that students estimated their workload at 13.6 hours per credit versus the 25–30 hour reference band for ECTS. The range was 9.2 hours to 26.9, a very high degree of variance. Workload in e-learning courses did not differ from that in conventional classroom instruction, which is a bit surprising. There are a lot of common sense explanations for the variances, and the report offers the following:

- Students spent less effort on compulsory courses (13.1 hours/credit) than they did on electives (17.3 hours/credit).
- Part-time students spent 30 percent less time per credit than did full-time students. Part-timers explained that they concentrated more in the limited time available to them for study.

- Employed students spent only 10 percent less time on their studies than the unemployed. And students with less than five years of work experience spent less time on study than those with five or more years of work experience.
- On average, older students (26 and up) spent three hours more per credit point than younger students.

To be sure, this study was conducted at a single institution in one country, and the specific courses at issue were not identified, even by field. But it suggests that monitoring empirical workload can provide insights for curricular and delivery revisions, along with targeted support services to sub-populations—provided one includes critical student background variables and accounts for idiosyncratic features of an institution’s academic calendar.

Another effort worth mentioning is that of the *Fachhochschule Aachen* in Germany, which tried a complex paper-and-pencil diary chart that forced students to reflect on uses of time in micro-categories. The most awkward section of this diary chart asked students to enter non study-related time for each period-type of study (class/lecture period, exam period, and other). It asked for time spent in field-related employment (not the formal work placement as part of the program), non-field-related employment, holidays, participation in university committees and other extracurricular activities, university processes such as registration and administrative paperwork, and “others” (they never mention social life, shopping, family, love relationships, etc.). Let’s put it this way: it’s not a very felicitous or productive section of the diary, which ultimately was regarded as barrier to information and the whole exercise was put on-line, under the acronym of StOEHN (student on-line workload evaluation of higher education). What the FH Aachen administration wanted to see was the relation between notional time-to-degree, student reported workload, and actual time to degree, not an unreasonable inquiry in any higher education system, ours included.⁴⁸ In the U.S., this study suggests adding a more nuanced set of questions and reporting categories on student uses of time to the National Survey of Student Engagement (NSSE).

Similar observations on student workloads were reported for the UK on the basis of a Web survey of 15,000 first and second year students in 2006, and a parallel survey in 2007, with the results reinforcing (Bekhradnia, Whitnall, and Sastry 2006 and 2007). Those surveyed reported an academic workload of 25/26 hours per week, but differences by field, and by corresponding division between formal class work and “private study,” were considerable. The survey did not offer students the chance to respond by type of learning activity, so when medicine, dentistry, and veterinary medicine students reported the highest number of formal instruction hours

⁴⁸The StOEHN self-reporting system is alive and well in 2008/09, offers students reporting periods immediately following the portion of the semester at issue while recall is keen (for example, for the period Sept. 1 through Nov. 2, 2008 the on-line reporting period is Nov. 3 through Nov. 16) and comes complete with generous prizes for respondents (see www.stoehn.fh-aachen.de).

(followed by engineering, subjects allied to medicine, and the physical sciences), that most likely indicates combinations of laboratories, clinics, and other intense learning situations outside lecture halls. Students in this survey also reported the proportion of scheduled hours of formal instruction they did *not* attend: an average of about 10 percent, highest in business (14 percent) and lowest in education (4 percent). Men tend to skip class more than women (surprise?), and women tend to spend about 1.5 hours more a week in “private study” than men. If you put it all together, medical/dental/veterinary studies are a full-time job. Business and communication are distinctly part-time jobs.

On the surface, student workload in courses delivered on-line would seem difficult to calculate, but in practice, an institution with both on-line and classroom-based versions of the same courses can adopt a different approach. As Raphaël Costambeys-Kempczynski, Director of the University of Paris III's *Télé 3* unit notes, the ECTS calculation for the on-line version is simply whatever the classroom-based course has determined, *but* “the translation of credits is really not so much a matter of time as it is what students have to know.” Whereas Paris III's classroom students undergo continuous formative assessment, *Télé 3*'s on-line students are subject to end-of-year examinations. That certainly is one way of connecting credits to learning outcomes, but the Bologna platform has spawned others.

5.2 Connecting Workload and Learning Outcomes Through Level Labels and “Descriptors”

The Tuning Project always made it clear that ECTS mean nothing more than volume of study when they stand alone. One might ask whether, standing alone, credits can represent different volumes of learning. The performing arts can illustrate the issue more easily than other disciplines. One might say that it takes four hours for a conservatory pianist to master Beethoven's “Für Elise,” two days for a Bach Two-Part Invention, and four months for the Rachmaninoff 2nd Concerto (including preliminary rehearsals with an orchestra)—and most of that is independent study known as “practice.” Are these measures proxies for challenge and level of learning? Can one find similar hierarchies of temporal investment in other disciplines? Surely there must be parallels in engineering lab assignments. Surely there are parallels in history between reading the text book, synthesizing the equivalent of a text book from a set of secondary sources, and digging out primary sources and writing a narrative based on them. Given the complexities of these different pathways, given different modes of student work in the disciplines, our European colleagues have gone about the task of linking workload to learning outcomes with alternative proxies.

The first—and easier—grid for infusing credits with more meaning involves identifying levels of study. In Bologna terms, these are “level descriptors.” The Tuning Project initially recommended four such levels within first-cycle degrees:

- Basic/Introductory
- Intermediate (intended to deepen basic knowledge)
- Advanced level (“strengthening expertise” is the way the Tuning Project puts it), and
- Specialized (sub-fields that open up at an advanced level)

At a later point, the Tuning reports suggested a distribution scheme for coding courses that combined these level labels with a simple taxonomy of course functions within a degree program: Core, Related (supporting course for the core), and Minor (optional or subsidiary). So, in the Tuning example, a code of 5-I-R would say that the course is Intermediate, Related, and carries 5 credits (González and Wagenaar (eds) 2003, p. 47). Basically, one is dealing with descriptors that help further define and communicate what has been studied (though not discrete learning outcomes).

While this suggested coding scheme to get people recording in the same conceptual language does not seem to have been adopted (at least in the evidence examined for this research), one finds analogues in program designs based on blocks of credits linked to learning outcome levels. At the University of Uppsala in Sweden, the Rector’s office offers guidance for developing a *de facto* credit-level using selected cases in the disciplines (Uppsala Universitet 2006). Learning outcomes for the core 60 (Swedish) credits in the political science program are divided in 20 credit blocks. The first 20 credits will result in the student’s ability, for example, to:

- describe and contrast the political systems of Sweden and other countries;
- discuss the process of political influence within state structures;
- discuss the broad international context for 20th century Swedish state security policy;
- discuss the political problems of developing and new democracies;

and, in the course of which, participate as both a discussant and presenter in seminars and write short essays.

The second 20 credit block ups the ante, with expectations for student demonstration of knowledge of various research methods and design; and at the third 20 credit block adds independent study of comparative politics, political theory, etc. as reflected in the student’s formulation of problems to investigate, along with demonstrable understanding of blending textual and quantitative research methods.

We assume that course numbering systems used in the U.S. carry at least an analogue of this “level” taxonomy, but as practiced across U.S. institutions of higher education, that system is not standardized even in language (let alone metrics) and is hardly transparent. The public higher education system in Florida has demonstrated that a common course numbering system is an efficient tool of transfer and enrollment management, and may even reflect common levels of learning across its universities and community colleges (though without a Tuning-type process,

one would never know for sure). But Florida is a rare case. And in Europe, there were no cases of common course identifiers.

A more intriguing approach linking credits to learning outcomes is reflected in the UK and Scottish placement of credits within *levels of challenge*. That link—between the measure of estimated student time-on-tasks and level of demand inherent in those tasks—creates a “credit level, defined as “an indicator of the relative demand, complexity and depth of learning and of learner autonomy” (Joint Credit Bodies for England, Wales, and Northern Ireland [EWN], 2001)⁴⁹. There are eight (8) credit levels in the UK system and 12 in the Scottish, each of which carries a generic description, independent of discipline but that can be applied to all disciplines—much in the same manner as qualification frameworks (in fact, the credit levels are set to match the qualification frameworks). Figure 10 sets forth the credit level “descriptors” for levels 3 - 6 of that 8 level continuum in the UK. Note that a “credit level” applies to courses only, and is not the same marker as a degree level (e.g. diploma, Bachelor’s)

Figure 10: Selected Credit-Level Descriptors in the UK

Level 3—apply knowledge and skills in a range of complex activities demonstrating comprehension of relevant theories; access and analyse information independently and make reasoned judgements, selecting from a considerable choice of procedures, in familiar and unfamiliar contexts; and direct own activities, with some responsibility for the output of others.

Level 4—develop a rigorous approach to the acquisition of a broad knowledge base; employ a range of specialised skills; evaluate information using it to plan and develop investigative strategies and to determine solutions to a variety of unpredictable problems; and operate in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs.

Level 5—generate ideas through the analysis of concepts at an abstract level, with a command of specialised skills and the formulation of responses to well defined and abstract problems; analyse and evaluate information; exercise significant judgement across a broad range of functions; and accept responsibility for determining and achieving personal and/or group outcomes.

Level 6—critically review, consolidate and extend a systematic and coherent body of knowledge, utilizing specialised skills across an area of study; critically evaluate new

⁴⁹More recently, criteria such as “range and sophistication of application/practice” and “links to associated academic vocational or professional practice” have been added to the level descriptors (Credit Issues Development Group 2008, p.11)

concepts and evidence from a range of sources; transfer and apply diagnostic and creative skills and exercise significant judgement in a range of situations; and accept accountability for determining and achieving personal and/or group outcomes.

As in the case of qualification frameworks for both the European Higher Education Area and individual countries, these levels follow a ratcheting up of complexity. While the phrasings might have been more felicitous, consider the first and last statements in each of those level descriptors (edited a bit to make the point):

Knowledge and application

Level 3: Applying [in such a way as to] demonstrate comprehension of theory . . .

Level 4: Developing a distinctive approach to acquisition of knowledge . . .

Level 5: Generating ideas . . .formulating responses to well defined and abstract problems

Level 6: Reviewing, consolidating, and extending . . .knowledge

Accountability

Level 3: Directing one's own course, with *some* [italics mine] responsibility for the contributions of others

Level 4: Taking responsibility for the nature and quality of product, performances, and other evidence of learning. . .

Level 5: Accepting responsibility for defining and achieving personal and group creations

Level 6: Accepting accountability for defining and achieving. . .

In the matter of knowledge and application, there is a continuous expansion of territory and tasks. As for the semantic line between "responsibility" and "accountability" one might say (these descriptors are too elliptical in the matter) that the former is a self-reflexive obligation whereas the latter references an external authority. If so, then again there is an expansion of scope as one moves up the "credit levels." Once these levels are established and everyone knows what they mean, degree qualifications can be set in terms of minimums at each level,

and that, in fact is what the UK did⁵⁰ to make sure that once a student crosses the line into tertiary education, the qualifications framework guarantees that the level of learning is principally tertiary and not secondary. In the U.S., that strategy would preclude students stuffing their credit portfolios with Level 3 courses simply to reach 120 or 128 credit thresholds for a Bachelor's degree. The challenge of content means more than time-on-task if we want transfer of credit to work (in the United States) and cross-border mobility to work in Europe.

5.3 Credits and Curriculum Reform: Inevitable When the Currency is Student-Centered

What credits based on student workload do (at least if faculty reflect deeply as opposed to mechanically) is to spur changes to the shape and delivery of curriculum. One might rethink what is compulsory and what is optional; what is pre-requisite; what is duplicative; what can be delivered in different modes. The credit system was intended to go hand-in-hand with explicitly stated learning outcomes of course modules, internships, and dissertation work, on the one hand, and program curricula, on the other. When faculty have to think about this relationship, particularly given the basis of ECTS in student workload, curricular reforms and adjustments are inevitable, indeed, desirable.

There is a remarkably common-sense essay from Finland that leads us to appreciate this relationship (Karjalainen, Alha, and Jutila 2006). There is no question, the authors admit, that the time a student needs for in-depth learning is dependent on the student's ability, motivation, and prior education and knowledge, but also on the difficulty of the course and the quality of teaching—to which I would also add (and they include these factors separately) the delivery system (distance learning, for example, is more time-consuming, with its searches, technical problems, software tangles, and communication with the instructor and other students) and the course organization (student team organization is obviously more time dependent, owing to the social dynamics of small groups). But they advise those moving into the ECTS universe to solidify time estimates before considering credits least “credit collection and maneuvering [become] a superficial game where learning is not the. . . primary goal.”

While some in the Bologna countries do not like to use the calculation, if one takes the average estimated annual student learning time of 1600 hours, then backs off and considers a three-year Bachelor's degree, one cannot avoid asking what range and level of learning can be achieved in 4800 hours by the average student. The question is a prologue to curriculum design. Take each course your program regards as core, as supportive, etc., and each task

⁵⁰ For example, the Honours Bachelor's degree requires 360 UK credits of which at least 90 must be at level 6 and no more than 30 at level 3 (upper secondary); the Ordinary Bachelor's degree requires 300 UK credits of which at least 60 must be at level 6 and no more than 30 at level 3; the Foundation (short-cycle) degree and two kinds of higher education diplomas require 240 UK credits of which at least 90 must be at level 5 and no more than 30 at level 3, and so on down through certificates (NICATS 2001, p. 6). The UK translates its credits into ECTS at a ratio of 2:1.

within those courses, estimate the time necessary to execute those tasks with maximum learning, and add it up. If you come up with substantially more than 4800 hours, go back and reevaluate the necessity of every piece. If you come up with substantially less than 4800 hours, then think about what else you need.

Such considerations bring us back to Project Polifonia, and the work of Evert Bisschop Boele, who wrote the *Handbook for the Implementation and Use of Credit Points in Higher Music Education* (Boele 2006). Boele explains what the European University Association's *Trends V* (2007) and other reports hinted at indirectly: that redoing credits helps you re-do the curriculum. Why? Because, as Boele contends, "it . . . makes clear that curriculum change needs to be about replacing old subjects by new, not just about adding subjects to a curriculum." If one thinks about it carefully, a student workload-based credit system forces faculty to reflect on what they demand of students, and, "as a result, it turns our attention from teaching to learning," and results in a *de facto* "agreement between the institution, teacher and student."

If faculty think all their conservatory students need a new course in 12-tone composition and that the learning in this course holds a high priority, they may have to drop or compress another requirement or move another topic out of the classroom and onto the Internet.⁵¹ As Boele observed on another occasion,⁵² under the student work-load default, if you ask students and teachers separately how much time students engage in academic work, you will get wildly different answers. You then might wind up asking some very basic questions about the curriculum and its delivery in your field, questions that "have always been there" but which a new credit system forces into the open. An issue in music as to whether fewer class lessons means more practicing can find its analogues in virtually all other disciplines.⁵³ Faculty at the Royal Academy of Music in Stockholm reflected that the consequence of thinking about student workload was an outright re-write of course plans to consider how much of the core conservatory subjects (ear, composition, etc.) are already included in the development of instrumental performance, hence the extent to which separate course modules were redundant. As Harald Jørgensen of the Norwegian Academy of Music has pointed out, the introduction of credit systems in Europe has had just such "a disciplinary effect" on faculty, forcing them to adjust demands, to talk with colleagues about what is required of students and at what levels of importance, and to think carefully about delivery, student interactions, and learning activities.

⁵¹The University of Paris III's foreign language courses offered on its *Télé 3* network demonstrate the virtues of being attuned to the time management of part-time students in particular.

⁵²The AEC Annual Meeting in Vilnius, Lithuania, 2002.

⁵³There are obvious analogues in the arts: in theater, it means preparing for rehearsals and rehearsals themselves; in the visual arts it means drafting, sketching, and preliminary composition, whether in a studio or at home.

What is difficult to translate from the performing arts (dance and theater, as well as music) to many other disciplines is Boele's notion of "individual contact time," that is, the adjustment of gross faculty contact time by the number of students with whom that time is shared.⁵⁴ That kind of formula is rather awkward, even though, as Boele notes, it is "simple and objective." In the U.S. system, it would result in heavier weighting for music performance courses with individual supervision, as well as for seminars, tutorials, and research participation in other disciplines, where individual contact time is more likely (but not guaranteed). But, as previously demonstrated in the UK and Scottish approach to levels of challenge, there are more transparent ways to weight credits.

Thinking through credits, of course, is not the only stimulant to curricular change. The dynamics of other Bologna reforms, particularly in matters of degree cycles, increased flexibility of entry and cross-over paths, and incentives for mobility and joint degrees play equally significant roles. In Section 7 below, where degree cycle and path issues are addressed, we offer up the case of medicine to illustrate.

5.4 Another Credit System in the House: ECTS and ECVET

In a continuing marking of the tension between the Bologna Process and the education agenda of the Lisbon Strategy, we find two credit systems living side-by-side in Europe and fruitlessly seeking an accommodation. What began under Lisbon as a way of creating a pan-European parallel to Bologna in vocational education and training, with components of transparency, recognition, social inclusion, and quality assurance (all articulated in the Copenhagen Declaration of 2002⁵⁵), became an effort to integrate vocational education at all levels with academic education at all levels under the banner of "lifelong learning" so as to open the door for more efficient pathways from one to the other.

Toward that end, an 8-level European Qualifications Framework, from grade school to graduate school, was fashioned, with knowledge (theoretical and/or factual), skills (cognitive and practical),⁵⁶ and competence ("responsibility and autonomy") as the governing columns of its matrix, and comparable in form to the Irish and Scottish qualifications frameworks (European Parliament Council 2008). Inevitably, the European Credit System for Vocational Education and Training (ECVET) followed (European Commission 2006). While the two qualifications

⁵⁴In music programs, this application of contact time differs by instrument, i.e. for some instruments, instruction is more likely to be delivered through ensembles.

⁵⁵ See ec.europa.edu/education/pdf/doc125_en.pdf

⁵⁶Cognitive skills are delimited to "logical, intuitive, and creative thinking": practical skills include "manual dexterity and the use of methods, materials, tools and instruments" (European Parliament Council 2008, Annex II).

frameworks are compatible enough to live on the same continent (and the Bologna Follow-up Group is confident of a positive relationship), ECVET has little to do with ECTS.

ECVET credits are not based on student workload, rather are defined in terms of learning outcomes, with a currency of “units of learning outcomes” that have different weights in relation to the whole qualification portfolio. But what do “units of learning outcomes” mean? The process is not as straightforward as that for ECTS.

- First, a unit is defined as “a set of knowledge, skills and competence which constitute part of a qualification,” and that can be assessed (European Commission 2006, p. 12).
- So all of that has to be defined by “the competent body responsible for the qualification at the appropriate level.” (p. 13) Do analogous “bodies” in different countries define the “units of learning outcomes” the same way? That’s an open question. The system stands or falls on the answer.

The design of ECVET also adds “credit points,” principally by “the proportion of the unit to the qualification” (p. 13). No examples are provided, so it’s difficult to know what this means and how this would work. All that is offered in this Commission staff working document in 2006 are suggestions, including weighting these credits by

- “an estimation of the importance of the contents of each unit defined in terms of knowledge, skills, and competence;
- reference to a real or notional average length of programme;
- real or notional learner workload in a formal learning context;
- real or notional learner effort in an informal learning context;
- combination of several criteria.” (pp. 13-14)

Those options left everyone conveniently at sea, particularly as ECVET is a voluntary system dependent on Memorandums of Understanding among providers, judges and ministries, and presumably in translatable ways across borders. No wonder that when the Bologna Working Group on Qualifications Frameworks (2007) was asked to comment on the ECVET proposals a year later, it sent the issue back to the European Commission for revision, but it left the issue of the relationship between workload and learning outcomes under the umbrella of “technical questions,” and for solution by whatever institutional and national agencies discover. That solution will be a long time in coming.

6. The Core of Bologna, Line IV: Closing the Accountability Loop with the Diploma Supplement

After qualification frameworks, Tuning, credits and their levels, and pathways into and through degree cycles, what evidence of learning and attainment does the student graduate carry

forward into the world, and how is that evidence communicated? After all, isn't there a graduation ceremony at which a single piece of paper on which a degree is officially recorded, stamped, and surrounded by ancient heraldic symbols presented to the student? Isn't that enough?

Not in an undertaking such as the Bologna Process. Another document, both personal and public, is called for, one that functions as an assurance, and closes the loop of accountability that began with qualification frameworks.

The document known as the Diploma Supplement had its origins prior to Bologna. From a UNESCO idea first broached in 1979, it came to serious life in a joint project of the European Commission, Council of Europe, and UNESCO. Its shape was refined and prepared for and officially ensconced in the European education landscape in the Lisbon Recognition Convention of 1997, and subsequently took its place in the core of the Bologna Process.

The Diploma Supplement basically addresses the following illustrative issue:

- You earned your 1st cycle degree in business administration from a university in Romania;
- You apply for a job with a bank in Germany; or you apply for admission to a Master's program in international finance in England;
- Neither the bank in Germany nor the university in England has any guidance or reference points to judge the nature and quality of your first cycle degree; hence
- Both your labor market and educational mobility is severely restricted.

You might present a schematic of the educational system of Romania to assist the judgment of others, but that map says nothing about your university, your program, or your personal attainments. Your diploma may be understood in Romania, but nowhere else.

When multiplied by millions of degree recipients in dozens of countries, this situation stifles the flow of knowledge, expertise, and skills necessary across a continent without borders, and leads to economic stagnation and cultural isolation. The Lisbon Recognition Convention addressed this core dissonance in Europe. It committed its signatories to a process by which each country would facilitate the recognition of credentials from other countries. The existing (since 1984) National Academic Recognition Information Centers (NARICs) simply offered advice and information on foreign education systems to students and their families, university advisers, and faculty in their own countries in matters of studying or teaching abroad. However valuable this information and advice, it does not reach the level of recognition policy.

In higher education, the process to which the Lisbon Recognition Convention committed its signatories requires a considerable amount of information presented in a standardized format, and the Diploma Supplement naturally became the vehicle. Commitment to a process, of

course, doesn't mean all that much, but under Bologna, the Diploma Supplement acquired engines and momentum. The Supplement does not *guarantee* recognition for a specific degree awarded by a particular program in country X, but it sets up the conditions for recognition. In terms of what this presentation calls the Bologna "Accountability Loop," the Diploma Supplement says—or should say (but rarely does):

this document serves as a guarantee by institution X that the named student has met the generic performance thresholds of the QFEHEA, demonstrated the learning outcomes described for his/her field of study through a Tuning or comparable process, and earned the requisite number of workload-based ECTS for the degree. The institution guarantees that all three of these components of educational history are at least compatible with the pan-European standards established through the Bologna Process.

That is a minimum for a statement that places the student on a tapestry of very public criteria for the meaning of the credential awarded. But it's still a minimum: it doesn't go far enough, and is nigh impossible in countries lacking national templates with finalized credit systems and in institutions that have yet to articulate learning outcomes for their degree programs.

Setting aside the form and content of Diploma Supplements for a moment, one naturally asks after the extent to which this communication instrument has been adopted, and in what forms. Table 1, based on the Bologna *Stocktaking* report for 2007, shows the status, mode, and basic conditions of Diploma Supplements, with the national system as the unit of analysis. Basically, half the Bologna country participants require institutions to issue the document to *all* graduates, in the national language and in whatever "widely spoken" language the student requests. When the institution is the unit of analysis, a slightly different portrait of penetration emerges. The European University Association's *Trends V* report (also 2007), indicates 48 percent of responding institutions claiming that every student receives a Diploma Supplement, 11 percent indicating they issue one only to students who request it, and 38 percent saying only that they plan to use it. The bottom line: there is still a large proportion of universities in Bologna countries that are not providing this documentation for students.

Given the purpose of Diploma Supplements and given the variations in implementation, one naturally asks who knows about it. *Bologna With Student Eyes 2007* offers a sobering assessment. The national student unions contributing to this bi-annual report estimated general *awareness* of the existence and nature of Diploma Supplements at 30 percent among students, 10 percent among employers, and 12 percent of the general public. More telling are the estimates of minimal awareness of 30 percent of employers and half the general public. To be sure, these are second party perceptions of whether these groups would evidence at least a threshold awareness of the Diploma Supplement, but these estimates are disappointing, and illustrate a broader problem in communication by Bologna Process participants.

Table 1: State and Stage of Diploma Supplements in Bologna Process Countries⁵⁷

<u>Stage of Implementation*</u>	<u>Number of National Systems</u>
Every graduating student receives one in standard format, in a widely spoken European language, automatically, and free	25
As above, but only on student request	7
As above, but only in selected programs, and only on student request	15
Nothing started yet	1

*Other variations include language (with the “widely spoken” proviso issued on request) and confining the population to students in programs offering the two-cycle degree framework.

6.1 Form and Content of the Diploma Supplement

What information does a Diploma Supplement convey and what does it look like? As in other Bologna Process guidances, what is suggested is a form, not particulars, i.e. both national systems and individual institutions have some leeway in both contents and shape of the information provided.⁵⁸ In addition to the student’s personal identifying information and a concluding certification of the Supplement by the institution awarding the degree, the “Outline Structure for the Diploma Supplement”⁵⁹ specifies:

1) Information about the credential awarded

- Name of the credential, and, if applicable, any nationally recognized title that comes with it, both in the original language.
- The major field of study.

⁵⁷The table adds to 48 countries (not the 46 usually referenced for the Bologna Process) reflecting the two countries in which there is more than one higher education authority: the United Kingdom (Scotland and EWNI) and Belgium (Flemish Community and French Community).

⁵⁸In France, for example, there is a mediating agency, the AMUE, that provides the French translation of the standard Diploma Supplement form and makes “suggestions” to universities through a software program, APOGEE, that generates both the form and computational applications.

⁵⁹ http://www.ec.europa.eu/education/policies/rec_qual/recognition/ds_en.pdf

- Name of the institution awarding the credential, its status (e.g. private, state), its type (e.g. *Fachhochschule*, university, *Grande École*), and the authority that has accredited the institution.
- If the course of study was delivered under contract by an institution other than that which awarded the credential, the same identifying information for that school.
- Language(s) of instruction and examination.

2) Information on the level of the credential

- Given the range of tertiary awards in different European countries, the precise level of the credential in the national structure of education (for which a schematic is attached). This information would immediately distinguish intermediate level, short-cycle, and different types of 1st cycle awards.
- Requirements for entry to the program in which the credential is granted. This is often a simple statement identifying secondary school diplomas or university entrance examinations, but, under the Bologna objectives of increasing the potential pathways into tertiary programs, may involve a list of options including prior levels of study, validation of experiential learning, etc. At the Master's level, the "access requirements" certainly reference a Bachelor's degree, but may also specify the field(s) of study for that degree.
- The official length / duration of the program. Institutions can choose to express this feature of the credential in terms of normative elapsed time (e.g. three calendar years), normative equivalent time (e.g. the "equivalent" of three years of full-time study), and/or student workload in ECTS terms.

3) Information on "the contents [of the course of study] and results gained," a heading that does not really reflect what goes into the Diploma Supplement at this point. The bulk of information here can be provided by a separate appended transcript of records, a document we would certainly use in the U.S., with all courses taken, credits, grades, and a guidance for interpreting the grading system.⁶⁰ But on 15 of a sample of 29 Diploma Supplements from 22 institutions in 11 countries reviewed for this research, the transcribed data were inserted in this section. Such placement does not contribute to the coherence of a section that also advises inclusion of information on:

⁶⁰ It is worth noting that, apart from mobility programs, transcripts of records did not exist for most European countries prior to Bologna. As one might expect, there are considerable variations in grading systems across the countries involved in the Bologna Process, including very unique scales (e.g. "10 - 20 marks," 4 -10, 3-1, 0-13). U.S. transcripts are also accompanied by guidances for interpreting grades, but these usually apply to letter symbols such as X, Z, Q, and M.

- Modes of study, including enrollment intensity (full-time or part-time) and distance learning.
- Requirements for the degree, including internships, theses, final projects.
- Indications of superior performance (we would call these “compressed signals”) such as honors, *cum laude*, etc.
- A discipline-level qualifications framework statement, something that should be prominent and universal on Diploma Supplements.

The Bologna guidance might “advise” on inclusion of this information, but with the exception of enrollment intensity and compressed signals of superior performance, one rarely finds it.

4) A statement of the purpose and function of the credential.

- Does the credential represent preparation for the labor force (and, if so, for what types of positions)? preparation for further study (and, if so, at what levels)?
- Does the credential also confer status in a regulated profession, licensure, title?

5) Additional information. What is specified in the guidance for Diploma Supplements is more information about the credential and the institution. “Additional information” about the *student’s* experience turns up only in a reference to any period of study in another institution or country, though two of the 29 Diploma Supplements examined included the title of the student’s thesis or final project.⁶¹

While a Diploma Supplement accompanies a credential awarded to a student, it is far more a statement about the institution awarding the diploma and the national system in which that institution sits than it is about the student (and the single piece of paper on which the degree is inscribed says no more than student X earned degree Y in subject Z). One grants that, for an employer, information about the institution and the system is necessary, but it is secondary to information about the candidate for the job. The transcript portion of the Supplement, whether included in the text or appended, can tell the employer—or the university in another country that is considering the student for admission to the next degree cycle—something about the content of the degree program and the student’s performance within that content, provided that the transcript is instantly transparent. But the transcript does not necessarily carry other information about the distinctive aspects and tones of students’ qualifying activities, either curricular (e.g. a description of the student’s final project or thesis), cognate (e.g. passing a certification

⁶¹ In biological engineering (Portugal), and economics (Czech Republic).

examination or earning a license outside of the student's formal program), or co-curricular (e.g. documented projects carried out by the student that directly utilized the knowledge and skills developed in the major program, no matter where those projects were located).⁶²

In addressing the state and potential reform of the classification shorthand for UK degrees, the so-called Burgess Group reinforced these observations in a broader context, presenting a compelling argument for something if not identical to the ideal content of a Diploma Supplement then to a comparable document (Burgess *et al* 2007). The principal generic points of the argument are worth presenting:

- A summative system, which gives the appearance of 'signing-off' a person's education with a simple numerical indicator is at odds with lifelong learning. It encourages students and employers to focus on one final outcome and perceived 'end point', rather than opening them to the concept of a range of different types and levels of achievement, which are each part of an ongoing process of learning that will continue beyond the attainment of their degree.
- There is a need to do justice to the full range of student experience by allowing a wider recognition of achievement . . .
- The present system cannot capture achievement in some key areas of interest to students and employers and many employers could be missing out on the skills and experience of potential recruits. . .
- The means of representing student achievement should be radically reformed—ideally to replace the summative judgement with a more detailed set of information.” (pp. 7-8)

The lifelong learning argument is one of the early indirect connections between Bologna and the Lisbon Strategy using this theme. As described below (Section 6.3) what happens to Diploma Supplements in the Lisbon context is that it becomes part of a lifetime electronic attainment portfolio called a Europass. The Burgess Group went on to propose a UK version of this initial documentation called a Higher Education Achievement Report [HEAR], “a single document, based on, and developed from, the current academic transcript, and incorporating the European Diploma Supplement” (Burgess *et al* 2007, p. 35). For a country in which part-time continuing

⁶² The author's authority in judging the form and content of transcripts derives from editing two U.S. national longitudinal study postsecondary transcript data bases, and building a third from ground up, reading through and designing the coding system for over 17,000 transcripts from over 3,000 U.S. institutions. For a full account of what these tasks involve, see Adelman, C. 2004. *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972–2000*. Washington, DC: U.S. Department of Education.

education has been historically notable, the HEAR would mark a significant entry to lifelong learning accounting. It goes into a trial run in 2009 in 18 institutions.

Our European colleagues had an attractive idea in the Diploma Supplement: the piece of paper called the diploma says nothing about the institution and very little about the student, yet we place an enormous trust in its symbolic power; so something else is needed. The national system needs that something else to verify its responsibility and oversight of the credential awarded within its borders. The institution needs that something else to reinforce the legitimacy of its programs. Most of all, though, the student needs that something else to tell the story of his or her unique achievement, and enable international mobility for purposes of further study or work. It is a matter of certified and transparent evidence, conveyed in a concise and direct manner. But as one reads through examples of Diploma Supplements from a range of countries, only one of the three parties to the document, the national system, is well served. The attractive idea needs some serious revisions in practice, and this is a case in which a U.S. version of the Diploma Supplement can help clarify what is at issue. The learning will be reciprocal, and perhaps will demonstrate that the smart money in this world is on cooperation. The Utah system of higher education has already embarked on the development of an e-portfolio called an “educational resume” to “contain evidence that the student has acquired essential learning outcomes,” and that derives “from exploring the diploma supplements and other aspects of Bologna.”⁶³ Other state systems and institutions are invited to explore and act on this mode of accountability as well (see Section 13 below).

6.2 They Can Do It Better.

It is odd, in a way, that a comprehensive reform of higher education designed to be student-centered in matters of flexibility and access, credits, and qualifications relies on a document communicating the student’s award that is not really about the student. As a first principle for rethinking what a Diploma Supplement can do, then, the author suggests starting with the student as the principal actor, subject, and ultimate beneficiary of the document.

It was Lars Schewe and Annerose Gulbins, the German students’ union (FZS) representatives at the time, who offered the distinction between a Diploma Supplement and a Transcript of Records to their Rectors at a series of conferences on the Diploma Supplement in the winter of 2005 (Chávlová and Spindler (eds.) 2005, pp. 129-134). The former, they contended, has a clarifying function: its purpose is to render the nature of the credential comprehensible and legible (*lesbar*), whereas the latter presents details that should be viewed separately. True. The transcript is an appendix to the core document—or should be. A transcript will be read by graduate program admissions committees, but not by employers. For general purposes, it gets in the way of communicating both program criteria and highlights of student learning.

⁶³Norman Jones, Chair, Department of History, Utah State University (personal communication).

The author suggests a prominent section of the Diploma Supplement consisting of markers of student achievement, curricular and co-curricular. This would substitute for the Diploma Supplement's "additional information" section and individualize the document. What might be included?

- Any compressed signals of superior academic performance, e.g. graduation with honors.
- Title and short description of student's thesis or final degree-qualifying project, if applicable.
- Any external certification examinations passed or licenses granted to the student. While the institution is not the awarding body in these cases, the institution certifies that it has recognized and recorded them.
- A maximum of two noteworthy and documented services performed by the student for either the institution, its surrounding community, and/or its extended commitments.
- Student research, creative, or service participation, if applicable. Field, title of project, and faculty sponsor. The key to validation for this entry is the faculty sponsor.
- Documented proficiency in languages other than the student's native language. Indicate language(s) and method of documentation. While the Europass includes a language profile, it is self-certified (see Section 6.3 below). On a Diploma Supplement, proficiency would be documented by the institution awarding the degree.

Other features of student experience while enrolled at the institution become parts of a resume, not officially documented by the institution (and the resume ultimately winds up in the Europass). Among the Diploma Supplements examined for this study, one included a list of 42 discrete activities that could be included under our proposed "markers" section of the Diploma Supplement. But this list included club memberships, student government, athletic teams, and committees, and with validating authorities ranging from the president of the institution to the president of the student union to the manager of the sports club. To be effective and credible, the student markers section of a Diploma Supplement should be limited, based on unobtrusive institutional records of the student's activities, concentrated on achievements related to the degree awarded, and verifiable and validated by the senior signator of the document. Otherwise, they are properly part of a curriculum vitae. One approach to quality control of the markers section is illustrated at the University of Vienna in Austria, where distinct templates of Diploma Supplements for existing fields were written centrally then reviewed and refined by program heads (analogous to our department chairs). Diploma Supplements for Bologna-era new curricula then follow these models. Another approach is illustrated by a determination of the faculty senate at the University of Porto in Portugal requiring annual review of Diploma

Supplement practices and indicating that modifications to the format and its elements could be undertaken only on approval of the faculty senate.⁶⁴

As for our advocacy of parsimony in presentation: from the perspective of institutional management, *Trends V* judges the Diploma Supplement to be “a costly exercise in administrative terms,” and more costly if employers don’t use it. As was pointed out, though, in that elaborate series of development seminars on the Diploma Supplement carried out by the German Rectors’ Conference in 2005 (Chávlová and Spindler, eds. 2005), once the technical aspects of the information system and software have been designed and templates established, costs decline dramatically. But if the Diploma Supplement is—as we propose for both the United States and Bologna countries—more about the student than the institution and requires authentication by a college authority, then its construction would be a labor intensive task.

Andrejs Rauhvargers, President of the Lisbon Recognition Convention Committee of the Council of Europe, doesn’t think modifications to the existing Diploma Supplement are necessary. Instead, he advocates a more extensive explanatory report as a boilerplate, the notable features of which would include:

- Whether the institution has engaged in a quality assurance or accreditation process and passed muster;
- Indication of whether the institution is transnational;
- Marking cases of franchising or affiliation (e.g. Foundation degrees, DUTs, etc.)
- Providing a more prominent position for National Qualification Frameworks and the position of the degree in the NQF;
- Instead of temporal length, expressing duration in terms of ECTS workload (with all countries translating into ECTS);
- Where “intermediate studies” are involved in access to the credential program, an indication of the nature and workload involved;
- Provision of details of learning outcomes, skills, and competences “associated with” the qualification;
- Under the national higher education description appendix, a description of the compatibility of the NQF with the European Higher Education Area framework, and details on the national Quality Assurance/accreditation system. (Rauhvargers 2007).

Given Rauhvargers’ position and commitment to ensuring recognition of credentials across borders in keeping with the 1997 Lisbon Convention, one understands his passion both to extend and deepen the boilerplate. But very little of this is about the student, and, given the

⁶⁴ Decisão do Senado relativa ao Suplemento ao Diploma da Universidade do Porto. n.d. Porto, PT: Author. The review is also designed to preclude variations in Diploma Supplement form and contents by program (Amélia Veiga, CIPES and University of Porto, personal communication).

slow and uneven pace of National Qualifications Framework emergence, is not likely to be considered—even as boiler plate—for some time to come. The success of the Diploma Supplement as an official assurance and validation of student attainment will lie in an assessment of the extent to which it is actually used to facilitate mobility across borders for purposes of either further education or employment. This judgment, too, is some years away, though the European Commission may hasten the process through yet another documentation.

6.3 Bologna and Lisbon Intersect Again: Diploma Supplement and Europass

The Europass originally (1998) emerged from the European Commission and Cedefop (the European Center for the Development of Vocational Training) to address problems in recognition and transparency of vocational credentials of various kinds. In its earliest incarnation, the Europass was a simple individualized electronic record, occupationally-oriented, of completed training and labor market experience, that could be rendered in more than one language and would be accessible to employers both within and across borders. After a few years of Bologna momentum and a Lisbon Strategy seeking to clarify its paths and links between education, training and the labor market, the idea, form, and processes of the Europass were updated to broaden its scope and, in the words of the Council of Europe, “rationalize existing tools.”⁶⁵

The Europass is now a standardized form and process for recording education, training, employment, transnational experience, and language skills. It is cumulative and lifelong. It is available in both electronic and hard-copy form through 31 National Europass Centers. The creation and ownership of an individual Europass comes wholly at the election of the individual. There are five documents in one’s electronic portfolio (though, as the EC Decision notes, this portfolio should be open to the future inclusion of other documents, with specific mention of “an instrument aimed at recording its holders’ competences in the field of information technology,” i.e. either the European Computer Drivers License or other IT certifications and their analogues).

Two of these documents, a standard c.v. according to a Europass template and a Language Passport, again following a template derived from the Common European Framework of Reference for Languages, are filled out and filed electronically in the core Europass data base by the subject.

Each of the three other documents is filed by a third party which must be registered with Cedefop and authorized to document the subject’s activities:

⁶⁵See Decision No. 2241/2004/ED of the European Parliament and of the Council of Europe of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Euoropass).

- one or more Diploma Supplements from a university or college;
- one or more Certificate Supplements from a recognized training institution or organization and designed for those who hold a vocational or training credential; and
- Europass Mobility certifications, issued by institutions or organizations at both ends of an assignment, course of study, training exercise, etc. that took place in a country other than the subject's home country.

The **c.v. template** asks for a summary of what is provided more extensively on the Language Passport, and, as importantly in light of the learning-outcomes focus of all European reform, not merely a description of skills and competences in six categories, but also an indication of where they were acquired. This requirement forces a great deal of self-reflection, and presumes the ability to articulate the form in which these skills and competences can be observed (but to assist the respondent, each of the National Europass Centers has examples of fully filled-in c.v.s on line). The six blocks cover:

- Social skills and competences
- Organizational skills and competences
- Technical skills and competences
- Computer skills and competences
- Artistic skills and competences
- Other skills and competences.

(http://europass.cedefop.europa.eu/europass/preview.action?local_id=1)

For those who hold vocational education or training certificates or analogous markers (not degrees), the **Certificate Supplement** document serves a function somewhat like that of the Diploma Supplement, and validates at least some of what would be included on the traditional c.v. It adds information to what otherwise would be a cipher, and in a standard form, and is issued by whatever organization or authority issued the original certificate or authorization to practice a trade. The Europass Certificate Supplement provides:

- A listing (profile) of the demonstrated skills and competences required for the original certificate or authorization.
- A list of occupations normally accessible to the person to whom the original certificate or authorization was granted.
- Boilerplate on the status of the body awarding the certificate, its legal basis, level within a national system, grading scale, etc.
- More boilerplate concerning "Officially recognised ways of acquiring the certificate" (includes training centres, workplace-based programs, and "accredited prior learning"), with an indication of the weighting of each path and its duration in weeks or years.

All of this presumably seals one of the key electronic envelopes of the Europass.

The **Language Passport** first asks for a self-assessment of skills using the European Levels Self-Assessment Grid,⁶⁶ then for diplomas or certificates, and linguistic experience, e.g. “Holiday job as a camp leader in French-speaking Switzerland, 1995-1997.” An example of the

Figure 11:
Sample Blocks of a Self-Assessment of Five Skills in a Second Language

<u>Understanding</u>	<u>Level</u>	<u>Level Code</u>	<u>Demonstrable Skill at the Level Indicated</u>
Listening	Proficient User	C1	I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled [sic] explicitly. I can understand television programmes and films without too much effort.
Reading	Basic User	A2	I can read very short, simple texts. I can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and I can understand short simple personal letters.
Spoken Interaction	Independent User	B2	I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views.
Spoken Production	Proficient User	C1	I can present clear, detailed descriptions of complex subjects, integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.
Writing	Basic User	A2	I can write short, simple notes and messages. I can write a very simple personal letter, for example thanking someone for something.

⁶⁶For the grid's position in the European Language Portfolio developed by the Council of Europe, go to www.coe.int/t/dg4/portfolio/default.asp?l=e&m=/main_pages/welcome.htm and follow the links.

self-assessment grid demonstrates the principle that wherever one turns in contemporary European reforms, one is looking at discrete content and skills. The self-assessment flows across five language skills, as illustrated in Figure 11 for an individual obviously competent in the audio-lingual aspects of the language at issue, but far less so in its visual forms. It should not be hard for U.S. readers to appreciate the necessity for a language passport in the European labor market, whether you are an electrician, a concert trombonist, or a civil engineer. Given the volume of inter-language encounters and cross-border travel, let alone language training in schools of all kinds and at all levels, it is very difficult to imagine that Europeans filling out the Europass Language Passport inflate their skills. In fact, the European Language Portfolio (but not the Europass) includes a dossier section in which individuals can provide samples of their work in second and third languages, including audio and video recordings, documents, extended e-mail conversations with native speakers, etc. The “zone of mutual trust” here is firmly established by habits born of proximity.

There is something here that transcends the Europass and even the Language Passport. Whether a U.S. organization would write the reference points on this particular continuum of language fluency the same way is not the point. The points are: (1) this continuum is a model of a mastery scale that can be transposed to other learning areas, hence fits with the larger drive of European reform toward accessible learning outcomes statements; (2) when one provides a respondent with a grid of such self-assessments, along with a space on the electronic form to indicate one’s language experiences (e.g. lived in the country of that language for 6 months), the respondent will not overrate themselves; and (3) if one were conducting a similar survey in the U.S., on an institutional or state system basis, using graduating students as the universe, and presenting a distribution of their self-assessed competence, one would have produced an unassailable public account. Can we do this in subjects other than languages, which have obvious sequential degrees of fluency? The Tuning Project suggests that one can, though not always by self-assessment.

Lastly in this electronic portfolio, the **Europass Mobility** documentation not only requires the official stamps/signatures of the organizations or educational institutions (or combinations of same, e.g. a department of medical technology at a Berufsakademie in Germany and a medical testing lab in Spain) on either end of the individual’s journey to another country for purposes of acquiring particular skills or learning to work in an international environment, but a statement of the objectives of the mobility experience, a fairly detailed outline of activities carried out during the mobility period, and the skills and competences (language skills, computer, organizational, technical, and social skills) acquired during that period.

While the whole portfolio may exhibit some redundancy, the repetition comes from the different sources of the documents, and should be regarded more as a form of validation. Now, how

many Europeans have availed themselves of the opportunity since a central Web site⁶⁷ was established and records kept in May, 2005? 14.8 million visits through January 2009, with 4.6 million Europass cvs and Language Passports completed. Volume varies considerably by country, with over 1.2 million site visits in 2008 alone from Italy and Portugal. How do these numbers disaggregate ? Using France as an example, since 2005, the European Europass portal has recorded 557k visits from France and 201k Europass cvs and Language Passports completed. Table 2 presents a more detailed French *centre-europass* report for 2008.⁶⁸

Table 2: Europass Volume for France, 2008

Visits to central Web site from France:	78,282
Europass CVs dowloaded or filled in online	170,529
Completed CVs online in French	75,230
Europass Language Passports dowloaded or filled in online	12,754
Completed Language Passports online in French	3,052
Europass Mobility documentation issued	7,615
Europass Certificate Supplement	New in 2008

It is obvious that people are taking Europass seriously, though one would want to ask after (a) the percentage of the working-age adult population these numbers represent, and (b) at least the basic demographics (gender, urbanicity, education level, etc.) of the certified population. Those are issues for another day.

7. Coda to the Accountability Loop: Quality Assurance

At the conclusion of the essay from which this document grew, *The Bologna Club*, the missing but allied elements of a story that focused on the “accountability loop” and access issues were marked for treatment at another time. That time is now, and the most important of the missing elements is what the Europeans call Quality Assurance, a system that includes but extends well beyond accreditation. The argument here is that the execution of qualification frameworks, ECTS, Diploma Supplements and, ultimately, the mutual recognition of credentials, is itself reinforced by a reference mechanism at the level of institutional and program behavior. Simply joining the club does not produce the end points of reform: one needs the evidence of both external review and internal monitoring and improvement.

⁶⁷

www.europass.cedefop.europa.eu/europass/home/hornav/Downloads/EuropassStatistics/Statistics.csp

⁶⁸Combination of data from *centre-europass* (personal communication, received Feb. 4, 2009) and country report on the Cedefop European Portal for Europass cited in footnote 59.

Put another way: the Diploma Supplement may close the accountability loop for the student, and it may say a good deal about the meaning of a degree awarded by an institution and its national system, but who or what places an official seal on the proceedings? what produces an airtight recognition across borders that simultaneously keep imposters out?; what guarantees that a self-certification in an honest statement?

The basic answer for European higher education is a system of quality assurance involving both *internal* institutional processes and benchmarking and *external* audits and/or accreditation, with an emphasis on the former. Three questions govern the presentation:

1) Language both reflects and creates reality; quality assurance is a very amorphous reality; and Bologna crosses a multi-lingual landscape. What are the key terms, and how have they been defined?

2) Internal processes are matters of institutional culture. What are the elements of a culture of quality, and, in light of national system processes and guidance, how have universities and other institutions of higher education sought to develop them?

3) External quality assurance through audits and accreditation relies principally on confidence in the *agents* of audits and accreditation. How has the emerging European system of quality assurance certified its agents?

Like other action lines of Bologna, quality assurance has a pre-Bologna history. Starting in the late 1980s and into the 1990s, as was the case in the U.S. assessment movement, Europeans became fascinated by Japanese practices of corporate quality management and their application in university settings. Just as we introduced Baldrige Awards in higher education, so they played, if somewhat hapazardly, with the TQM and CQI fads of the time. France, the UK, and the Netherlands were first out of the gate with national policies, but in each case for different reasons (Westerheijden, Hulpiau, and Waeytens, 2007). Reichart (2007) reminds us of why quality issues strode onto the European higher education stage before Bologna: they were products of the intersection of massification and traditions of curriculum, instructional practices, and university organization and culture that were not prepared to deal with massification. High drop-out rates, excessive time-to-degree, ossified curricula, lack of student/faculty interaction, insulated academic bureaucracies—it was as if little had been learned (at least in some countries) since the student uprisings of 1968. No wonder Euro-students packed themselves off to graduate schools in the U.S., the very environments of which were seen as vibrant knowledge economies.

There was a virtue to the explorations of corporate models, however. First, they produced a pilot project on various ways of evaluating quality in higher education (Donaldson, Staropoli, Thune, and Vroeijenstijn 1995) that stimulated the Council of Europe to issue a formal set of

recommendations to “establish transparent quality assurance systems” that would improve teaching, learning, and research, and to enhance the flow of information concerning effective evaluation and improvement practices (Council of Europe 1998). While the Sorbonne Declaration of that same year did not mention quality assurance, the Bologna Declaration indicated, as one of the core action lines of efforts to follow, the “promotion of European cooperation in quality assurance with a view to developing comparable criteria and methodologies,” an undertaking not fully understood at its utterance.

Two years later, and no doubt with a background boost from the Bologna Declaration, the Council of Europe gave birth to the European Association for Quality Assurance in Higher Education (known as ENQA), one of the major structures that was then adopted, sanded, and polished by Bologna. As national legislatures gave European universities more autonomy in the 1990s (e.g. with block grants instead of budget lines) they asked for more accountability, but the variety of models of QA that then grew up did “not contribute to the necessary confidence” (Zgaga 2007, p. 33) for mutual trust among national higher education systems. As Bologna evolved, it became obvious that convergence in QA systems was required along side that of degrees. It is no surprise, then, that at the 2001 Prague ministerial meeting of Bologna countries, the ENQA was invited to ensure that the establishment of a pan-European QA system would accompany other Bologna action lines trekking toward their 2010 deadline for full implementation, i.e. that the words of the original Declaration would have a program. There is no doubt that Bologna influenced both the speed of emergence of QA and the dominance of some functions of its structure, most notably accreditation, more than others.

To repeat: the principal reason QA assumed a large profile in Bologna was to establish full trust across borders. It is assumed that if you and I, from different countries, use roughly the same public procedures and criteria to officially warranty that our institutions of higher education do what they are supposed to do and have the organization and means to continue doing it, then we trust that the credentials awarded by those institutions have integrity. And when we focus on academic programs *within* institutions, we offer the same warranties. With trust and integrity comes recognition. In Europe, this challenge is historically more significant than the case of a graduate program at Ohio State recognizing a bachelor’s degree from the University of North Carolina at Wilmington. It was a more significant challenge when programs in specific disciplinary fields (e.g. nursing, engineering, psychology, music, business) in different countries sought partners for joint degree undertakings. No matter what one’s judgment of the quality of programs in engineering or business in specific U.S. institutions, our subject matter accrediting agencies in these fields, ABET and AACSB, have been around long enough, demonstrating leadership in establishing basic standards and guidelines, to earn our trust. In Europe, on the other hand, we are talking about systems that were subject to varying degrees of oversight. With a degree or course work in Y from institution Z in country Q, could I go to school at institution C in country M? could I work as an L in country M? What stands behind my learning in a university? Adam (2007b) insists that qualifications frameworks and quality assurance go

hand-in-hand, i.e. you can't work on them separately. If mutual trust is a goal of the Bologna participants, if I am to say, "Yes, a student with your bachelor's degree can be accepted in my master's program," then not only must I understand and accept your framework, but also the process by which its quality is monitored and enforced.

7.1 The Language Landscape: Just What is "Quality"

With all that in mind, and before we examine some of the major milestones and millstones on this road, the obvious question arises: just what is *quality*? As the European Network for Quality Assurance in Higher Education itself acknowledges, "[quality] is very hard to pin down to a definition in any language" (Crozier, F. *et al* 2006, p. 8). This is a territory that is fraught with linguistic problems, particularly in the matter of its core English vocabulary. While the language landscape of Europe presents complications to any convergence, Bologna's accountability loop, with qualification frameworks and Tuning outcome "reference points," adds dimensions born of a generalized level of diction to that challenge. Participants at a March 2007 seminar on Quality Assurance in Athens (under the aegis of the European Association for Institutional Research) pointed out, for example, that in some languages, the word, "expert," requires more specification, the phrase "reference point" may not exist, and the distinction between "incompatibility" and "difference" is very elusive. And Prchal (2007) marked the difficulties of verbalizing performance criteria and interpreting institutional self-evaluation documents in the dozen major languages encountered by the music conservatories in Project Polifonia, adding that "in European developments in quality assurance and accreditation, the issue of language is a tremendous challenge" (p. 40).

Indeed, virtually everyone who has addressed quality assurance raises this issue. For the most critical terms on this field—"standards," "guidelines," and "assurance"—do not translate easily across the language landscape of Bologna. As Patricia Pol of the University of Paris XII (and an active Bologna "promoter" in France) reflected, "it's a *concept* issue: 'standards' doesn't mean anything in French, whereas 'norms' does, but 'norms' is a different concept." German recognizes "standards, but offers a more congenial home for "norms." Lueger and Vetton (2007) try to reconcile these positions by asserting that "in principle, all standards have a normative function, whether they provide consistent scales and measures, regulate actions, set limits or facilitate comparisons" (p. 11). Harvey (2007), too, tries some linguistic diplomacy, putting "quality" in one corner and "standards" in another, while opening up the door to "norms" (and thus, indirectly, appealing to the French and Germans). "Quality," he says, "is about process," and standards are "a means of evaluating the outcomes." So the *quality* of higher education would be evaluated, for example, "by examining the *process* through which the student learns," whereas the *standards* of higher education would be evaluated "by examining *what* the student has learned," the outcomes of the processes. When you put the two of them together, i.e. in "quality standards," you get norms, which, within quality assurance, are *expectations* for the behavior of both institutions providing education and of the judges of that

behavior (p. 80). Despite these intriguing arguments, the “proposed new word clusters” that emerged from ENQA’s 2006 workshop on the “language of European Quality Assurance,” did not include “norms” at all (see Crozier *et al* 2006, pp. 19-20).

Acknowledging these valiant attempts, let’s try something more poetic, and go back to the the two major European languages in which “norms” finds a more direct and comfortable home than “standards” (granted, in French more than in German). The author is sure that native speakers will offer other shadings, but holds that gathering some related nouns opens on to a common field: *le critère* (criterion) and *le principe* (principle) in French; *die Höhenmarke* (benchmark) and *die Echtheit* (integrity or authenticity) in German. From this field, a transcendent spirit called “quality” grows: in institutions devoted to education, the spirit is evidenced in public, transparent, and ever-higher *criteria* and *benchmarks* for all aspects of the processes and provision of knowledge, and, by observance of common *principles* of judgment, is executed with *integrity*. Large abstractions, yes, but concrete in execution. Ideally, what came to be called “quality assurance” is a case of language becoming a way of life.

7.2 Quality Culture

As noted, quality assurance agencies with different mandates and authorities existed before Bologna. Some performed what we would label accreditation functions. But their roles and behavior constituted a mirror image of the previous cacophony of European degrees and academic processes. There was no common language, no analogous reference points of judgment, no inter-country relationship. When Bologna came along, its entire portfolio was seen “as a process of quality enhancement, at least by the initiators of the reforms,” (Reichert 2007, p. 6) and that further quality improvements would come as natural by-products of the Bologna action lines. Change the curriculum to focus on learning outcomes and one would get a more student-centered environment; change the degree structures and more joint and interdisciplinary programs would arise; change the map of pathways into university study and more attention will be paid to guidance, advisement, and assessment; introduce qualification frameworks, Tuning, and benchmarking and both students and faculty know where they are going. All of these are quality enhancements; and when requirements for self-monitoring are built into the reforms, they build a culture of quality that is larger than its formal processes.

The authoritative guidance in these matters is provided by *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (2007), produced by the so-called “E4” group of organizations⁶⁹ at the request of Bologna ministers at their bi-annual meeting in Berlin in 2003. The ESG, as it is known, realizes what Reichert notes is Bologna’s formal interest in

⁶⁹European Association for Quality Assurance in Higher Education, the European University Association, the European Students Unions, and the European Association of Institutions of Higher Education.

quality assurance “as focused strongly on processes of quality assurance agencies. . . moving toward common standards and guidelines” (Reichert 2007, p. 6). When one examines the ESG, there is no doubt that it leans toward the local institution as the place where quality grows and acquires authority, but the ESG pays considerable attention to external quality assurance agencies, keeping a balance in case the local proves unequal to the task.

At the local institutional level, QA is “quality improvement.” Jeliaskova and Westerheijden (2002) provide some guidance for what that means: basically, public evidence that an institution regularly reviews and evaluates its micro-processes and micro-performances and adjusts in accordance with those reviews and evaluations. Bologna added a fourth dimension to QA in its convergence of degree comparabilities, and that, in turn, puts a lot of pressure on both qualification frameworks and the evidence that students have met the criteria of those frameworks (in the terms of our analysis, “demonstrating that your *students* have demonstrated.”). It also puts a spotlight on departments and individual faculty members responding to evaluations and student performance data to improve what they do. At this level of activity, one is far removed from public show-and-tell of mere information, e.g. of how many degrees one’s institution has awarded. Indeed, Peter Williams of the UK’s Quality Assurance Agency, in listing the functions of QA, distinguishes between “accountability” and “information.”⁷⁰ Anybody can assemble information, as institutions participating in the “Voluntary System of Accountability” in the U.S. do. But, as Williams emphasizes, until one brings in qualification frameworks, learning outcomes, and student performance standards into the picture, the information remains unconnected to institutional and system performance criteria, hence is not really a statement of “accountability.”

Williams’ guidance is reflected in the TREE thematic network on engineering’s framing of the questions to guide its Tuning project:

“Volumes and statistical analysis are not enough to understand the issue. Just as an example, in 2003 about 290,000 European students got an engineering degree.⁷¹ [But] what kind of competences make a German engineer different from a Polish engineer; what kinds of competences have in common a Spanish *ingeniero tecnico* and a French *ingénieur diplômé*; what are the expectations about young engineers of a German or an Italian SME [small or medium-sized enterprise] or a multinational company with local sites. . . for example Airbus or Siemens.”⁷²

⁷⁰In a 2006 Power-Point presentation on the quality assurance process.

⁷¹ The data are from Eurostat, and cover “engineering trades” as well as core engineering fields.

⁷²Unpaginated document found at www.inifi.it/tree, Line A—Tuning, Description of project topics.

One does not present evidence for a quality assurance process simply by citing the number of degrees awarded, rather begins by examining—and reaching some consensus—on core competences and their variations, desired of graduates in a field. And for a truly transnational professional field such as engineering, with considerable cross-border mobility, quality assurance simply cannot exist without these questions, activities, and considerations.

In the emerging QA system of Europe, one observes both informal quality culture building efforts at the institutional level that includes discipline-specific reviews or audits, and a resistance to formal discipline program accreditation on the grounds of costs and effort. That is, all the principal stakeholders (faculty, students, administrators) recognize that one does not improve quality within an institution without starting at the discipline program level, but that given the choice between accreditation visits for dozens of programs versus a process that canonizes the institution, the latter wins. As Dietmar Ertmann, Chancellor of Karlsruhe University in Germany noted, “at 30,000 Euros for a degree program accreditation and with five year renewals, if you are offering 50 or 100 programs, that get’s too expensive. So you look for a ‘process accreditation’ [for the institution] as opposed to a ‘course accreditation’ [for all the degree programs].”

Illustrations of these dynamics in three countries—the UK, Sweden, and Germany—should help U.S. readers grasp what the European Network for Quality Assurance in Higher Education means by quality culture in practice, and the ways it is related to, but not part of, the core Bologna accountability loop.

Let’s start with an early document, the UK’s Quality Assurance Agency’s 2001 *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education*.⁷³ What we have from QAA are ten series of guidelines, each focused on a different function within an institution, e.g. external examining, admissions, program design, treatment of students with disabilities, etc., and providing an explication of issues an institution should consider when carrying out that function. The principles are offered to whoever is responsible, e.g. committees, departments, faculty, students, etc. In audits (or assessment site visits) institutions are not asked directly on an item-by-item basis whether they adhered to the code, rather it is expected that self-study/self-evaluation documents will indicate how they have addressed the principles, and that is what is meant by a culture of quality at the institutional level.

This Code does not insert the national agency in discipline level reviews, rather in recognized institutional functions that cross all discipline programs. Example: under what is called flexible and distributed learning (including e-Learning), the code points out that the range of arrangements for FDL is wide, hence it is not appropriate to present guidelines following

⁷³See www.qaa.ac.uk/academicinfrastructure/CodeofPractice/default.asp

traditional organizational functions. QAA thus organizes the Code of Practice around notions of program delivery, student support, and academic standards in assessment and the award of credentials. An excerpt from these institution quality guidelines is presented in Figure 12:

FIGURE 12:
**Sample of Guidelines for Academic Quality and Standards in Distributed Education
from the Quality Assurance Agency of the United Kingdom (2004)**

- Students should have access to descriptions of the units of program elements that delineate expected learning outcomes and assessment methods;
- Students should receive a “clear schedule” for on-line delivery of study materials and for any testing or other forms of assessment;
- The delivery system has been tested, is reliable, comes with contingency plans, and has a reasonable “life expectancy.”
- The materials provided through an FDL system meet the same academic standards as those provided for classroom-based instruction.
- Students should be provided with a schedule of available support resources, whether online or in person, and a specific contact person to give them “constructive feedback on their academic performance and authoritative guidance on their academic progression.” (QAA 2001, p.27)

One could continue, but the meanings are clear: (1) these are very student-centered principles of responsibility, and (2) they are executed in institutions where faculty and administrators have internalized their reference points so that the practice becomes a matter of breathing in and breathing out.

Swedish quality assurance culture resides in institutional audits, and was revised in 2007 to limit evaluations to a small number of disciplines in each institution (Swedish National Agency for Higher Education [*Högskoleverket*] 2007). Institutional audits take place every 6 years, and are basically designed to document processes, not substance, e.g.

- does the institution evidence broad participation, including students, in QA procedures?
- does the institution draw up action plans as a result of its self-reflection and self-studies?
- does the institution have standard protocols and routines for hiring “competent personnel”?
- does the institution ensure that QA procedures lead to “improvements to activities” (pp. 25-27)

As in some other national cases, the new QA in Sweden “is more a question of shift of emphasis and modification of the current system” (p. 7). The first point is that past practice enables institutions to undertake their own internal QA processes. Meeting this criterion reduces the need for frequent and extensive evaluations of programs by the *Högskoleverket*, except in cases where data normally produced by the institution raises “a risk of failure to

maintain good standards.” A program may also be selected for special evaluation on the basis of innovation, good practice, or unique focus—so the motivation is not always pejorative. The *Högskoleverket* also sees the necessity of international participation in evaluations, and an assessment of comparability to QA processes carried out in other countries. And Sweden is not the only country (Germany, Norway, Finland, and the UK are others) to include the selection of “centers of excellence” as part of its national QA framework “to stimulate quality enhancement” (p.17), a goal that would produce improvements just in the process of applying for the designation.

The German case is more closely allied to accreditation. It illustrates what happens when multiple authorities in a Federal political system (like ours in the U.S.) take roles in the establishment of QA processes, and, simultaneously, the consequences for the local culture of quality when faculty are multi-tasking in converting to Bologna structures. Bologna was driven by national ministries, but in Germany that doesn't mean much because the responsibility for higher education resides principally with the 16 state (*Länder*) governments which, in turn, assign their education ministers to a coordinating body called the *Kultusministerkonferenz* (KMK), whose “decisions and guidelines. . .[have] no formal legal significance. . .[but tend] to be highly influential.” (Witte 2006, p. 150) The third actor in this arrangement is the voluntary association of Rectors⁷⁴ of 258 institutions of higher education (enrolling 98 percent of enrolled students) known as the *Hochschulrektorenkonferenz* (HRK), whose work includes advising both the Federal ministry and the *Länder* through their KMK. In matters Bologna, the Federal ministry passed the ball to the Rectors' Conference instead of the *Länder*, reflecting a continuing rivalry between central and state authorities.

Where do these cross-currents come together and rivals cooperate in matters of Quality Assurance? In a joint creation of the KMK and HRK called the *Akkreditierungsrat*, canonized in 2003 as the master of whatever quality assurance system would emerge to parallel Bologna reforms. The *Akkreditierungsrat* oversees seven agencies, one responsible for theological studies (*kanonischer Studiengänge*), three devoted to general accreditation but regionally-oriented (e.g. Lower Saxony), three oriented to the disciplines,⁷⁵ and all seven booked for business as the conversion of each pre-Bologna degree to a new Bachelor or Master is treated as a new degree requiring program accreditation. Indeed, as Witte (2007, p. 49) reports, over 2500 programs (37 percent of the potential universe) had been accredited by 2007. In a similar cooperative vision, the Federal Ministry in Bonn and the *Länder* agreed that the national qualifications framework (see pp. 33-34 above) must be observed as a condition of

⁷⁴German Rectors are the equivalent of U.S. Vice Presidents for Academic Affairs or Executive Vice Presidents. They are commonly recognized as what we would call Chief Academic Officers.

⁷⁵One agency covers nursing, allied health, and social work; the second is responsible for engineering, computer science, physical sciences, and mathematics; and the third is devoted to business administration.

accreditation. Programs that have not linked themselves to the “chapters,” so to speak, of the NQF will not be accredited by any of the seven agencies approved as accreditors by the *Akkreditierungsrat* (KMK and BMBF 2007).

What Chancellor Ertmann of Karlsruhe University called “process accreditation” became “system accreditation” by decision of the KMK in 2007. What does this mean? In a way, “system accreditation” is an audit of internal processes to ensure that they conform to the ideals of the ESG. It is internal quality management, has a formative effect, and loosens ties to formal external accreditation (a German mantra because Federal and *Länder* authorities still control degrees). It leaves more room for the culture of quality within an institution to grow. In a technical university such as Karlsruhe, faculty have been struggling with conversions to Bologna features such as qualification frameworks, modularization of courses and accompanying ECTS (a challenging task in engineering when “machine work” in groups of five students or less is part of the program), and the integration in preparation of what Ertmann called “a house of competences” including presentation techniques, how to apply for a job, etc. that we would associate with fractional credit courses in universities. In all this activity, it is inevitable that flesh will slowly be put on the skeleton of ESG quality standards, including attention to publication of expected learning outcomes, periodic review of program execution and examination regulations, improving the capacity and currency of computing facilities, and participation and regular feedback from students. It can’t all be done at one fell swoop, but the culture grows.

7.3 Accreditation and Its Registry

As we have noted more than once, Quality Assurance is bigger than accreditation. It means developing local capacity for standard setting, monitoring, and peer review. It means developing a detection system for lapses in instruction, holes in the curriculum, dissonances in student advisement, snarls in information systems, etc. Witte (2009) calls it “curricular governance.” It doesn’t take much reading between the lines of the Council of Europe’s original (1998) push into the QA arena, though, to realize that something more formal than local capacity and development of a quality culture was called for. And the Bologna ministers concurred, setting into motion the development of a trans-national structure to address the issue of educational standards, force self-evaluation by externally-set criteria, include external but peer evaluators, and result in a public report with a decision forwarded to a national authority (which may be the same authority that oversees the process).

So we now find not only national accreditation bodies (some of which did not exist before Bologna), but also international accreditation bodies and quality assurance networks, and associations which simply specialize in quality assurance research and technical assistance. The European Network for Quality Assurance in Higher Education became the pivotal organization for putting QA and accreditation together, and Bologna also gave birth to the European Consortium of Accreditation in Higher Education (ECA) and its “code of good

practice” for accreditation. Agencies began to line up to be qualified members of ENQA, setting up a Russian doll effect: peer review and approval of those who would conduct peer reviews and approvals of others. The Russian doll eventually became a formal “register” of approved oversight.

How did Bologna ultimately produce a Registry of approved accreditation agencies? Technically, of course, it is *not* called an “accreditation” registry, rather the European Quality Assurance Register (EQAR). First, the E4 Group was asked to develop “the practical aspects” of the accreditation registry, and to report back to the core Bologna Follow-up Group. This report was presented to the London ministerial meeting in 2007 (E4 Group 2007).

The E4 report stressed the following guidelines and parameters for the Register:

- 1) The Register should rely on the “organisations and structures which already exist within the Bologna Process.” (p. 4)
- 2) The purpose of the Register is to provide information about quality assurance agencies and “reduce opportunities for ‘accreditation mills’ to gain credibility.” (p. 5)
- 3) Provide a basis for governments and institutions to choose agencies.
- 4) By its very existence, “improve the quality of quality assurance agencies” and “promote mutual trust among them.” (p. 5)

Yes, but an organization must meet set criteria to be included as a quality assuring accreditor on the Registry, must apply through ENQA, be reviewed and approved by an independent panel, and pay dues. ENQA’s authority goes no further than master of this process. After that, its job is to disseminate information about good practices in QA and promote co-operation. The Register focuses on *compliance* with the European Standards and Guidelines for QA, and if you are an organizational member of ENQA you are automatically in the Register because you have already been judged as observing those Standards and Guidelines, and, in fact, gaining membership in ENQA is the usual way of entering the Register.

What information about each recognized agency is included in an application to be included on the Register? In addition to standard boilerplate,

- fields covered
- type(s) of quality assurance services provided
- countries the agency operates in
- countries the agency is officially recognized in
- hyperlinks to evaluation / accreditation reports by the agency” (p. 9)

The guidelines and application procedures were first published in August, 2008 with the first round of applications due in October, and the review begun in November. That’s a fast track,

and as of January 2009, only three agencies were listed on the Register (www.eqar.eu). The announcement makes it clear that the registry covers more than accreditation—far more: “agencies that provide evaluation, accreditation or both; national and international agencies; agencies that organise reviews at programme, faculty, departmental or institutional level,” and ensures that those who pass review “*substantially*” comply with the European Standards and Guidelines for Quality Assurance (ESG). What does “substantial” mean? It means “principles rather than . . . procedural details.” (European Quality Assurance Register 2008, p. 7). Put another way, “the ESG can obviously not be used as a checklist” and “if a standard is not fulfilled by the letter of the law, the applicant might still be considered substantially compliant if the stipulated principle is appropriately respected in practice.” (p. 7) An intriguing nature of the legal status of the registry is that “there is no obligation for any Bologna signatory state to recognise the quality assurance decisions” made by an agency listed on EQAR. Given the fact that the EQAR is, in the words of the president of its executive board, “the first formal structure established by the Bologna Process” (Guide, p. 3), the lack of obligation sets up the conditions for testing the implicit authority of Bologna, and we just might observe that tension in the years ahead.

External reviews under EQAR can be initiated either by the applicant agency or by a national authority. If the applicant initiates the review, it asks for coordination by ENQA; if the latter, the national authority itself can be the coordinator or commission a third party for the job.

Requirements for individual review panels include at least four members, one of which must be an “academic staff member” and one a student. One panel member must come from a country other than the applicant’s. Approved agencies are on the EQAR for 5 years before reapplication and review, though there are exceptions, i.e. shortening the period of listing due to non-conformance, flaws in the initial review, or change of status of the applicant.

The Register is now operational, and, quite separately, everybody seems to understand what building a “quality culture” inside institutions means. Indeed, the Bologna Follow-up Group reminds agency applicants and those who would engage them for purposes of accreditation that “quality assurance mechanisms are not an end in themselves, but should act as a support for institutions in their continuing development” (BFUG 2008, p. 5).

7.4 QA and Accreditation in the Disciplines: the Case of Engineering

Rectors and chancellors of European institutions of higher education may be torn when it comes to deciding the scope of accreditation for their bailiwicks—institutional or program—and may lean toward the institutional option on the grounds of comparative costs and efforts.

But some program disciplines operate in an international knowledge and practice market, with a visibility that rises above the plain of other discipline programs in an institution’s portfolio. Attendant on that international market are borderless professional associations and non-European quality assurance authorities. We have mentioned engineering previously in regard

to its search for competence definitions and their variations that serve graduates in a highly mobile profession, and it will serve again here to illustrate how such fields are dealing with QA and accreditation under Bologna regimens.

Again, there is a pre-Bologna history. Augusti, Freeston, Heitmann, and Martin (2007) contend that the old “habilitation” system in France (analogous to the current RNCP described in Section 2.2 above) was, for engineering programs, the equivalent of accreditation; that, in the UK, *de facto* accreditation has existed since the 19th century under the aegis of professional associations of the different engineering fields; and that in Germany, Federal or *Länder* rules “made accreditation superfluous”⁷⁶ (p. 42). To pull these together, along with other country-based engineering associations, the profession could draw on existing transnational organizations and projects, e.g. SEFI (*Société Européenne pour la Formation des Ingénieurs*), CESAER (Conference of European Schools for Advanced Engineering Education and Research), and the Thematic Networks on Engineering Education backed by the European Commission (the first of these, the E3, produced workshops on engineering accreditation in the late 1990s). So there was a professional frame that could easily respond to the 2004 EC call for design and testing of transnational evaluations and accreditation within what was called the EUR-ACE project (EURopean Accredited Engineer).

EUR-ACE surveyed the standards invoked by its partner institutions and determined that there were multiple commonalities—called them “convergences”—in terms of learning outcomes, though different ways of arriving at those outcomes, a reflection of what is supposed to happen under Qualifications Frameworks and Tuning. The project focus thus fell “on what is achieved rather than how it is achieved” (Augusti, Freeston, Heitmann, and Martin, 2007, p. 43), hence respecting different traditions of engineering education, accommodating innovation in teaching practice, encouraging the sharing of good practice, and open to diversification of the engineering curriculum.

When one reads the EUR-ACE standards for accreditation of engineering programs (EUR-ACE 2005), one marks both a Tuning qualifications framework and a set of criteria for accreditation phrased in terms of the six program outcomes displayed in Figure 13. In evaluating programs for accreditation (or simply for internal QA purposes), the program outcomes serve as the background tapestry for considering whether the institution/program have considered the needs of students and employers, whether program objectives are consistent with those needs, and whether outcomes are consistent with objectives. Once those questions are answered, the guidelines more through educational process, resources (staff, facilities, finance, partnerships), the question of sufficient documentation that learning objectives have been reached and

⁷⁶If the authors are referring to the old *Rahmanprüfungsordnungen* (curriculum frameworks), then the proper judgment is that they had to be negotiated so many times among the various *Länder* (state) authorities and the disciplinary associations, that the system had become “dysfunctional” (Witte 2008).

whether graduates “enter an occupation corresponding to their qualification” (p. 10), whether the institution/program organization is “adequate to accomplish the programme outcomes” (p. 11), and whether the local quality assurance system regularly examines all of the above and uses the analysis for continuous improvement.

All of this is offered as a template for use by national accrediting agencies, and no supra-national organization is assumed, though the European Network for Accreditation in Engineering Education that emerged from this effort seems to “authorise” national engineering accreditation bodies, and, as of the November 2007 EUA Forum on QA, had done so for the UK, Ireland, Portugal, Russia, France, and Germany.

Figure 13:
Program Learning Outcomes Criteria for Accreditation in Engineering

Knowledge and understanding, e.g. for first cycle degrees, “of the scientific and mathematical principles underlying their branch of engineering” (p. 5)

Engineering analysis, i.e. “graduates should be able to solve engineering problems consistent with their level of knowledge and understanding, and which may involve considerations from outside their field of specialisation. Analysis can include the identification of the problem, clarification of the specification, consideration of possible methods of solution, selection of the most appropriate method, and correct implementation. Graduates should be able to use a variety of methods, including mathematical analysis, computational modelling, or practical experiments, and should be able to recognise the importance of societal, health and safety, environmental and commercial constraints.” (p. 5)

Engineering design, e.g. for the first cycle, “an understanding of design methodologies,” and the realization of engineering designs, “working in cooperation with engineers and non-engineers. The designs may be of devices, processes, methods or artefacts, and the specifications could be wider than technical, including an awareness of societal, health and safety, environmental and commercial considerations.” (pp. 5-6)

Investigations, i.e. literature searches, use of data bases, interpretation of data based on experiments, and computer simulation. Laboratory skills, and knowledge of codes of practice and safety regulations fall in this category.

Engineering practice, e.g. for the first cycle, selecting and using “appropriate equipment, tools and methods” in designing “engineering devices and processes,” understanding the limitations of “techniques and methods,” and “awareness of the non-technical implications [ethical, environmental, commercial and industrial] of engineering practice.” (p. 6)

Transferable skills. Some of these are “soft skills,” and they all cut across the engineering program curricula, e.g. teamwork, diverse methods of communication both with engineers and the “society at large,” commitment to professional ethics and responsibilities, awareness of the nature and limitations of “project management and business practices such as risk and change management,” and “ability to engage in independent, life-long learning.” (p. 7)

The development of European accreditation also left open the door for what the *Standards and Guidelines for Quality Assurance* called “external quality assurance agencies . . . operating or planning to operate in Europe” (ENQA 2007, p. 29). Such organizations, of course, are required to pass the same muster of compliance with European QA standards as everyone else. Should such organizations apply for recognition and be accorded approval on the Register, institutions (but, more likely, discipline programs) could elect their external review, hence accreditation. In engineering, that opening raises the notable role of ABET (the U.S. Accrediting Board in Engineering and Technology) and its potential as an accrediting body in Europe. That possibility invites consideration of the 1989 Washington Accord among countries with higher education systems of “the Anglo-American type” that obviously includes ABET (EUR-ACE 2005, p. 46). The comparison with the EUR-ACE approach reveals a basic divide: the Washington Accord signator Anglo-American countries apply the same accreditation procedures and standards to first-cycle degrees (the Master’s degree is in the wings, but it’s not in the family yet) that are generally four-year degrees whereas the EUR-ACE system awards a “quality label” through participating agencies, trusting those agencies to apply “shared standards and procedures,” and does not lean on the notion of normative elapsed time at all. For EUR-ACE, the ABET frame consistently invokes expected time-to-degree (and its attendant division of curricular territories—general education, basic science and math, and engineering major) instead of focusing wholly on learning outcomes.

The semantic niceties here are subtle. We learn more by comparing the 11 ABET Program Outcomes (ABET 2007) to the six of EUR-ACE. Basically, the two systems cover the same territory, with variations in phrasing, and with EUR-ACE aggregating what, under ABET, are discrete soft skills such as teamwork (though ABET stresses “multidisciplinary” teams), communication (with EUR-ACE more elaborate on this count), and life-long learning. Two differences, though, are notable: first, EUR-ACE gives knowledge of scientific and mathematical principles top billing, whereas ABET puts the *application* of that knowledge before all others (and does not mention knowledge of principles). Second, while both Program Outcomes lists include various spaces for environmental, social, and economic contexts of engineering, ABET gives them prominence as a separate outcome grounded in an explicit “broad education necessary to understand. . .,” i.e. the general education portion of the Anglo-American curriculum.

Stepping Back for a Moment: Quality Assurance, Convergence, and Economic Metaphor

What does Quality Assurance mean for the convergence analysis of Bologna? Adopting the QA features of the Bologna portfolio as tools of “convergence” is not like the adoption of the single currency Euro, nor were the motivations analogous, but once again there may be a metaphorical bridge between economics and education. By the late 1980s, currency reform was seen “as an anti-inflationary / disciplinary mechanism” that would also eliminate “fluctuation margins and the irrevocable fixing of exchange rate parities.” (Torres 2007, pp. 4-5). Might one also say that the quality assurance features of Bologna, particularly the building of local quality culture processes, are also “anti-inflationary / disciplinary,” but without rigid controls? And there are more related metaphorical bridges on the convergence road, e.g. one of the most important reference points of the European Monetary Union was the goal of price stability. If fully established, certified, and observed, do not qualification frameworks provide an analogous form of stability in education? One can even argue that the political integration necessary to guarantee price stability has its analogue through the European University Association and pan-European disciplinary associations adopting similar endorsements of qualification frameworks. For a while it seemed that higher education reform did not need any supranational institution such as those required by both economic and political integration. Nothing comparable to a European Central Bank loomed. But the cement of Quality Assurance and the establishment of the Registry came to play that supranational role. One acknowledges that these metaphorical bridges and their assumptions (e.g. that qualification frameworks provide some stability in education) might be a stretch, but like other assessments in this fast-moving work-in-progress, they are worth contemplating.

PART III: OTHER CORE ACTION LINES

8. The Core of Bologna, Line V: A Different Kind of Visit to Degree Cycles

The most widely-known core feature of the Bologna Process in the U.S. is the conversion of a wilderness of credentials previously offered across the European continent into a uniform three-cycle structure parallel to the bachelor’s, master’s, and doctoral.⁷⁷ In fact, along side of traditional national nomenclature (e.g., *licence*, *Licenciatura*, *Laurea*), for purposes of international education commerce those are the default labels for the three cycles.

At the outset of Bologna, Haug (1999) worried (and was probably joined by others) that new bachelor’s degrees would be seen as intermediate credentials, that short-cycle credentials would be downgraded hence actually lengthening time to first degree for those entering through

⁷⁷Initially—in both the Sorbonne Declaration (1998) and Bologna Declaration (1999)—only two cycles were mentioned, equivalent to undergraduate and graduate. For a detailed account and analysis of the evolution of these cycles see Witte, 2006.

the short-cycle route, that adding new degrees to the existing portfolio without some rationalization would result in complexity and confusion, not transparency, and that distinctions between universities and non-universities would disappear as program offerings drifted toward each other. But the degree cycle revolution in Europe is a done deal. There is no turning back. Sooner rather than later, just about everyone will be on the new system—with some minor variations, to be sure. When national systems gave their institutions the option of converting to the Bologna cycles or delaying change, as was the case in Portugal, programs that changed over sooner saw increased volume of student applications, a confirmation of the classic signaling hypothesis, i.e. with visibility, students see the new cycles as more advantageous than the old (Cardoso, Portela, Sá, and Alexandre 2007). And an Italian study of pre-post Bologna degree-cycle reforms behavior of high school graduates showed a 10 percent increase in the probability of entering higher education, particularly among higher performing students from less affluent households who would see economic advantages of attaining the basic 1st cycle degree (the Italian *Laurea breve*) in a shorter time span than was the case in the pre-Bologna system (Cappellari and Lucifora 2007).

We have previously cited the German option of a BA+MA cycle introduced in 1998, and in the first *Trends* report, Haug (1999) noted the beginnings of a transition to a two tier degree framework in France and Italy in the 1990s. Before Bologna, Denmark and Finland had introduced these cycles but found that students continued to the Master's and employers didn't hire the Bachelor's, so were initially skeptical of the impact of the Bologna degree tiers. One should note, too, that as the conversion to the new degree tiers was very gradual in some countries, there a continuing challenge of interpreting the old ("legacy") degrees on a different landscape. Virtually everyone credentialed in Europe prior to 2005 holds a legacy degree, and when national qualifications frameworks are developed, these degrees have to factored into the self-certifying statement of alignment between the national QF and the broader Qualifications Framework of the European Higher Education Area.

Kehm and Teichler (2006) ask three strong sets of questions for guiding evaluation of Bologna's degree reforms at the mid-point of what we now see as its first phase. The first asks after the extent to which the "tiered system of study programmes and degrees" actually been introduced, with all its accompanying adjustments. The second asks after the extent to which the goals of this reform have changed, and whether one witnesses true convergence in practice, with variances in form. Lastly, they ask for effects. Though it was really too early in 2005 to mark sufficient changes in student academic behavior, what Kehm and Teichler mean by "effects" are a set of much more diffuse phenomena: increased intra-European student mobility, external dimension attractiveness of the EHEA, "an increased transparency, flexibility and efficiency in terms of study paths, and progress in curricular reforms which strengthen qualifications of students relevant for the labor market." (p. 271) The "effects" menu is a very tall order.

Of the questions they ask, we know the answer to the first. Even half-way through Bologna's first decade it was obvious that no participating national system would reject the tiered structure. Eventually, Europe would see it everywhere. Though with 46 systems, each with its own archaisms and interest group weightings, it is inevitable that the conversion would happen in some places more slowly than in others. It was also obvious to all but the most naive participant or observer that some fields of study are different from others in terms of delivery and sequence, particularly when they lead to regulated professions and require periods of practice, externship, clinic, etc. along the way, so that the rules of the tiers, so to speak, will not be uniform across national borders. All of this can be illustrated in Germany (which gave institutions a pre-Bologna option of converting to Bachelor's/Master's), where, by 2005, only 20 percent of the old programs had been converted to the new cycles. As Alesi, Bürger, Kehm, and Teichler (2005) documented, business/economics, computer science, and engineering were the leading disciplines (though in engineering, the leaders were in the *Fachhochschule* sector more than among the TU9 group of technical universities). In a twist that can be observed in some other Bologna countries, they note, all such conversions were treated as new programs, therefore were required to undergo accreditation, thus slowing the rate of conversion considerably.

As for specialized fields: in an earlier survey sponsored by the German Rectors' Conference (Klemperer, van der Wende, and Witte 2002), the German Academies of Art and Music (which enroll 2 percent of all higher education students in Germany) rejected the new degree structure and insisted on their integrated Master's. As the authors recount,

“The Music Academies hold that a degree below the Master level does not make sense in their subject area as five to six years are needed to qualify for the labour market. A three year Bachelor programme would be impossible and a four year Bachelor would imply that the consecutive Master basically consists of exam preparation, which does not make sense. They also argue that due to their strict process of student selection, there is no need for a shorter degree. . .” (p. 61)

The academies also cite the high proportion of their students coming from other countries (20+ percent) as evidence of program quality and reputation, and “the fact that the German degree titles are unknown abroad does not really matter as the performance is the decisive employment criterion” (p. 61) Not all music programs agree with this position. As we have previously noted of conversations at the Royal Academy of Music in Stockholm, students going into music education will need more time for preparation, but for that purpose, there is a Master's degree and not necessarily a longer Bachelor's. Music, it was pointed out, is a competitive field, but there are a host of occupations at issue. Performance is not only about soloists: it is also about accompanists and ensemble musicians. Then there are conductors, musical directors, composers, arrangers, orchestrators, community musicians, church musicians, musicologists, music managers and producers, music therapists, music publishers, etc. There is a lot of

potential, as Ester Tomasi-Fumics of the University of Music and Performing Arts in Vienna observed, particularly if students combine classic conservatory training with technical studies and legal studies, for example. And given the competitive nature of the field, one finds some talent leaving university studies for positions with orchestras, opera companies, rock groups, etc. before earning their degrees. The point is that graduation rates may not be as meaningful in the performing arts, a much smaller field in terms of enrollment than, let us say, business, and that success may be measured in a complex of ways. As noted in Section 12 below, we will have to wait for more complete data.

Our interest in the degree cycles is not to evaluate their comparability to U.S. degrees, or to explore the conditions of eligibility of European graduates for admission to different graduate programs in the United States. What should be of greater relevance to U.S. audiences are the ways in which other elements of the Bologna Process portfolio are brought into relief by the cycles, and the range of interactions between higher education and economy that the Bologna cycles open up. Specifically, this essay contends—and it is not the first to do so—that, even though the intention of Bologna policy was to move students into the labor market more quickly through a shorter first cycle degree, the Bologna Master’s degree is increasingly recognized *by students* as the terminal degree of tertiary education, with the Bachelor’s degree one—though the most important—of intermediate steps *en route* to the Master’s. The two degrees link graduates to different occupational clusters, one more technical and supportive, the other more research-oriented and managerial. However stratified those paths appear, there is nothing dissonant about them in post-industrial economies.

Reflection on the degree cycles also brings the “social dimension” of the Bologna action portfolio onto the stage. “Social dimension” is a heuristic not merely for increasing access to tertiary-level education for under-served populations, but for increasing participation on the paths that lead to first and second cycle degrees by creating and improving connecting routes from points outside the formal tertiary system. The “social dimension” is not a reflex matter of reaching isolated rural populations, students with disabilities,⁷⁸ children of immigrants, and working-class adults: it is a matter of *how* one establishes connecting routes into the tertiary system for these populations. In Sections 8.3, 9.1, and 9.2 below, we will illustrate three ways these connections play out and the universe of participants on degree paths expanded: the growth of short-cycle degrees within the first cycle, the growth and treatment of the part-time student population in Bologna countries, and procedures for the recognition of prior learning in both formal and non-formal settings. All these developments—along with bridge programs for students crossing from occupational to academic paths or from first to second cycle

⁷⁸In the common set of questions for the *Eurostudent III* survey (2008), when students were asked “Do you have any physical handicaps or chronic diseases that impair your studies?” the proportion responding positively ranged from 0.7 percent in Italy to 9.1 percent in Norway (p. 35). The editors of *Eurostudent III* point out that the student perspective is not necessarily the national system perspective, and that there is too much variance in the cultural definition of “disability” to claim comparable data.

programs—have a notable impact on our assessment of the time it takes to earn credentials. When European programs speak of two-year short cycle diplomas, three or four year Bachelor's degrees, and one or two year Master's degrees, they refer to notional time, not elapsed time. We will come back to this.

The task of building qualifications frameworks in the disciplines, connecting them to credits, and validating that connection should be a challenge prior to or concurrent with converting existing degree programs to the three cycles of the European Higher Education Area. That is not exactly the way it happened, though, and that's part of what *Trends V* means when it observes that "implementation of the three cycles seems to have become a task which is considered as a goal in itself, rather than a means to achieve other objectives [including student mobility and cross-border recognition of credentials]." (Crosier, Purser, and Smidt 2007, p. 21). And there is no question (it is observed in the European Students Union 2007 *Bologna With Student Eyes* as well) that some of the transitions from old to new structures have been "cosmetic and superficial."

Other aspects of the transition have not been cosmetic, curriculum reform, for one. Such reform is an inevitable consequence of repackaging longer first degrees into a shorter time frame. It is not a simple matter of breaking a curriculum into pieces. As an illustration, we have the unobtrusive evidence of a Diploma Supplement from the *Escola Superior de Tecnologia* of the Polytechnic Institute of Setubal in Portugal, representing a legacy 5-year degree (*Licenciatura Beitápica*) in Social Communication with a quasi-transcript that shows what the old degrees looked like. No less than four foreign languages (Spanish, English, French and Italian) were required during the first 2 years. The balance of the program included multiple courses in communication theory, multimedia, journalism, public relations, scientific communication, and internships. What does this program look like under the new Bologna

Bachelor's? For the answer, one goes to the Institute Web site, digs down to degree program descriptions for the first cycle,⁷⁹ and finds:

- Languages (only English and French) are moved into the electives column for years 1 and 2.
- A few courses have been moved onto the Web (communications management, technology and communication, public relations and publicity).
- The first year core, *tronco comum* (50 out of 60 ECTS), includes history of media, theory of imagination, survey of performing arts, cultural anthropology, theories of journalism, professional contexts, language and text.

⁷⁹www.si.ips.pt/ese_si/planos_estudios_geral.formview?p_Pe=102

- The second year core (35 out of 60 ECTS) includes interpersonal communication (in the old curriculum, this subject was placed in year 4), cybercultures, political science (previously in year 3), and three courses from the old curriculum: theories and models of communication, sociology of communication, and audiovisual language.
- Tracks (*ramo*, or “branches”) start to open up in year 2: journalism and cultural communication.
- Internships disappear until the 2nd semester of year 3. But a final seminar/research project becomes the core of year 3.
- A host of electives are offered in years 2 and 3.

The degree is still coherent, that is, you know what it is about, and one assumes that students will use their electives to follow one of the tracks in order to set their studies in *bas relief*. Faculty obviously had to make some difficult choices: multimedia and scientific communication were dropped from the first cycle; the foreign language component was dramatically diluted; second—and more advanced—courses in communications theory, were dropped. It is hard to judge the demands and quality of the modules that were moved to the Web, but the topics of those modules lend themselves to Web presentation, and one has some intuitive sympathy with the faculty choice given ECTS guidelines. Is the degree content more convincing as preparation for the labor market? On balance, probably not. Is it convincing as preparation for a Master’s degree in a communication specialty? On balance, probably yes. Until one sees the learning outcomes posited for this first-cycle, one cannot bless it as “curriculum reform,” but it certainly illustrates the kind of curriculum clarification that results from resculpting degree cycles.

There are three complexifying features of the three-cycle framework that should be acknowledged before we move on:

1) Intermediate credentials are offered in a growing number of countries. We have previously mentioned the Swedish “diploma,” granted, on application, roughly two-thirds of the way toward a Bachelor’s degree. The traditional German *Vordiplom*, awarded after successful completion of second year examinations, is another, as is the Dutch *propaedeutic* certificate, awarded on passing all subjects and examinations in the introductory portion of a program. So while everybody is committed to three cycles, one notes a number of stops between them, most of which pre-date Bologna. In fact, on the landscape of European credentials are dozens of intermediary minor and special purpose awards, for which credit markers are used.⁸⁰ Short-cycle degrees within the first cycle of

⁸⁰The Scottish Credit and Qualifications Framework, for example, lists 8 credentials between undergraduate entry and the Master’s degree, for each of which is indicated minimum credits required at 12 degree qualifying levels. The University of Strathclyde’s “awards framework” lists 11 credentials, including two types of Bachelor’s, three types of Master’s, two postbaccalaureate, one bridge credential, and three sub-baccalaureate awards.

undergraduate work, certificates, diplomas—these are not necessarily “lesser” awards, rather formal recognitions of progress. They could be made at different stages of an otherwise unitary course of study. In typical U.S. practice, one could present, for example, a General Education diploma, a certificate of grounding in a major field, a diploma for a 30 credit “minor,” etc.

2) While the Bologna Declaration did not specify the normative number of years necessary to complete each degree cycle (all it required was a *minimum* of three years for a Bachelor’s degree), the formula of 3+2 (three year Bachelor’s, two-year Master’s) has become the dominant Bologna practice, yet one that evidences considerable variation by field of study and type of institution, particularly in binary systems. All Scottish Bachelor’s degrees remain four-year (while, with engineering and architecture as principal exceptions, those of England/Wales/Northern Ireland were three-year degrees long before Bologna) and so are those in Spain. Engineering degrees in the nine German technical universities, such as Karlsruhe, are three-year first degrees with a majority of graduates continuing to the Master’s level, whereas engineering degrees in the majority of German *Fachhochschulen* are three and one-half year first degrees, including an industry internship. Medicine remains a five and one-half year (Scotland, Sweden) and six year (everywhere else) program that awards a Master’s as its first degree, though notable variations have appeared in Switzerland, the Netherlands, and Poland (see Section 8.2 below). However more transparent and comparable degree awards have become across the Bologna countries, thus facilitating mobility (e.g. from a university in Spain to the labor market in Italy, or with a Bachelor’s degree from the same university in Spain to a Master’s degree program in Denmark), the Bologna degree cycle reform was not reductionistic. The Master’s level offers further variations, with the UK holding and defending its traditional one year Masters, interestingly enough, on the grounds of student workload.⁸¹

3) The paths between degrees and degree-levels have been regularized, but still are conditioned by field and institutional type. According to the national self-reports in the 2007 Bologna *Stocktaking* report of the European Commission, access to Master’s degree programs for Bachelor’s degree recipients is guaranteed in 37 of the participating national systems. Very few students take the equivalent of a GRE, GMAT, or LSAT for graduate school admissions purposes. This access is part of what *should* emerge from that “zone of mutual trust” with qualification frameworks that basically guarantee that the Bachelor’s

⁸¹The testimony of Imperial College, London to the Education and Skills of the British House of Commons in 2007 indicated a range of 2280 to 2350 hours of student workload at the Master’s level in engineering and natural sciences, based on a 48-week study year, against the 1500–1800 hour averages used in other Bologna countries. See <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmmeduski/205/205we01.htm> for all written evidence submitted to the House of Commons on Bologna-related matters and ordered printed, April 16, 2007.

candidate has attained the criteria set forth in the framework statement. Nonetheless, binary systems such as those in the Netherlands and Germany have created “bridge programs” for Bachelor’s recipients from the *hogescholen* and *Fachhochschulen* who move into research-oriented Master’s programs. Bridge programs also turn up in the contexts of access and part-time study (Section 9.1 below) and recognition of prior learning (Section 9.2), but in the context of the Bachelor’s/Master’s cycle they are essentially post-baccalaureate, “pre-Master’s” programs that have been described as “an extensive form of selection.” (van Os 2007)

Before examining the divide between labor market and Master’s degree destinations of Bologna Bachelor’s recipients, a few short reflections on three-year Bachelor’s degrees and the sometimes uneasy attention they have received from graduate school deans in the U.S. First, we never had a problem with UK Bachelor’s degrees, which have stood with a three-year marker for most of recorded memory. Why should an Italian or Austrian three-year degree now induce unease? Second, for the most part, European students enter higher education with the equivalent of *at least* one year of U.S. higher education already under their belts (Sijbolt Noorda, president of the Netherlands Association of Universities, places the marker at one and one-half years for entering university students). If the reader goes to the Web site of CIMEA, the Italian information site for degree equivalencies,⁸² clicks on admissions guidance for foreign students, and looks at the recognition and admissions statements for students holding U.S. high school diplomas, one finds those diplomas acceptable *only if* the student has also (a) completed two years of college *or* (b) holds college sophomore standing and has completed “4 Advanced Placements (APs) in as many subjects related to the Italian programme of their choice” *or* (c) holds an International Baccalaureate diploma with a course of study that included Italian language. All applicants must also pass an Italian language examination similar to our TOEFL. One can count the number of high school graduates in the United States who meet those qualifications on one’s fingers and toes. And what holds for Rome generally holds elsewhere.⁸³

8.1 Destinations of the First Degree Cycle: Labor Market and Master’s Degree

To some extent, the rationalization of degree cycles under Bologna was influenced by economic considerations: moving more university students into the European work force more efficiently. The European Students Union’s *Bologna With Student Eyes* for 2007 contends that, in its

⁸²Virtually all European countries have a designated National Academic Recognition Information Center (a NARIC). The NARICs are linked for continuous updates of mobility requirements and statements of academic equivalencies, and have an increased volume of responsibilities under both the mobility and access themes of the Bologna Process.

⁸³A notable variation, illustrated at the University of Karlsruhe in Germany, involves one-year bridge programs taught in English while students’ German language skills are being developed to the point of independence. By the second year at Karlsruhe, the foreign English-speaking student is wholly immersed in the German language instructional environment.

design to create a smooth transition from higher education to the labor market, the Bologna Bachelor's degree is a novel phenomenon in Europe. Not wholly true, and in practice, the new cycles created new pathways and connecting bridges between labor market oriented and research oriented (academic) programs, so that the student is presented with complex choice sets. As was pointed out in a report early in Bologna history (Klemperer, van der Wende, and Witte 2002), the success of a labor market oriented Bachelor's degree is dependent on acceptance by employers, and if the *state*, as an employer, balks at hiring those with the new Bachelor's degrees (not only in occupational fields such as social work or school teaching, but also in traditional academic disciplines in the humanities and social sciences), the structure falls. The authors observe that Germany was more cautious than some other countries in the matter of conversion (Norway, for example, converted all of its programs to the Bologna cycles by 2003) precisely for these reasons —worried that the new cycles would not render internationally intelligible its old *Diplom* and *Magister* degrees, would not reduce its typically long time-to-degree (six to seven years) and high drop-out rates,⁸⁴ indirectly suggesting that the new world threatened traditional relationships with employers.

The assessment of flow into the labor market, though, depends on what one means by “employers.” As a comparative analysis of the introduction of the Bachelor's/Master's core noted at the mid-point of Bologna history (Alesi, Bürger, Kehm, and Teichler. 2005) “personnel-recruiting is a conservative business, and the tendency is to prefer graduates with the known traditional degrees or Master's” (p. 11). But that attitude, as Chancellor Dietmar Ertmann of Karlsruhe University reflected, lives in the human resource divisions of corporations, whereas the research divisions have closer relationships with universities and are more attuned to academic change. In the matter of hiring, he noted, the German corporations began to wake up when the engineering associations issued statements endorsing the full three-year Bachelor's plus two-year Master's as the normative degree structure.⁸⁵ What was endorsed in this case was largely a repackaging of the old 5-year research-oriented engineering degree. In fact, as the 2007 *Bologna With Student Eyes* observes, there has been considerable repackaging of the old longer first degrees into the Bachelor/Master cycle.

Institutions “of applied science”—the polytechnics, the *hogescholen*, the university colleges, the *Fachhochschulen*—were always, by mission, labor market oriented. As Prorektor Dieter Höpfel of the Hochschule Karlsruhe observed of his own institution, most technical students have post-degree jobs before they finish their Bachelor's degree. The economy (at least through 2007) was strong enough so that they had no incentive to continue to the second cycle. At one point,

⁸⁴A perceptive German study of pre-Bologna cohorts distinguished between drop outs (26 percent), transfers (13 percent) and returns (10 percent), with notable differences by sector (university versus *Fachhochschule*), discipline, and program (Heublein, Schmelzer, and Sommer 2005).

⁸⁵One might also note that in Germany there were 48,000 “engineering” jobs (15,000 in engineering services, and 12,500 in metal processing, mining and vehicle production) that could not be filled in 2006, and that the Germans were importing university-trained engineers, e.g. 1,500 from Poland alone (though the “best” Polish engineers were already working in Norway and the UK). See Füller 2007.

the Hochschule Karlsruhe administration assumed 20 percent would continue to the second cycle and another 20 percent would return from the labor market to pursue a Master's at a later point. But this assumption has been fragmented by economic conditions. Other external prods can influence this trend, e.g. the European Civil Engineering Society ruled that a *Fachhochschule* Bachelor's was a technician's degree, hence giving a potential boost to Master's enrollments by *Fachhochschule* graduates who would otherwise not be content with the label of "technician," and the lower pay-scales that accompany that label.

Estimates of direct labor market entry following receipt of the new Bologna Bachelor's vary widely, and data are hard to come by. Serge Riffard, Vice President for International Relations at the Jean Monnet University in St-Etienne, France, projects that half of the *licence* recipients in traditional academic fields at Jean Monnet will continue to second cycle programs, but that virtually none of those who earn "professional" ("applied science") degrees will do so. In the French system, those who earn a 2-year (short-cycle) technical DUT degree from an *Institut Universitaire de Technologie* (IUT) can transfer into a university Bachelor's program in the third year, earn a "professional" *licence*, and move into the same labor market stream as those who started their professional *licence* program in the university, OR, if they are already employed, can earn a different credential in that third year called a *licence professionnelle* that confirms their existing labor market status. In either case, they reinforce Riffard's assessment of what will happen to occupationally-oriented graduates of the IUT allied with Jean Monnet (at least outside the regulated professions such as law, medicine, architecture, etc.).

While the "employability" objective of the Bologna reforms ranks high and persistently in all official declarations and communiques, the objective itself is rather vague and difficult to evaluate. The phrasing in the original Bologna Declaration concerning the first cycle was only that the degree "shall also be relevant to the European labour market as an appropriate level of qualification," which means nothing more than if you don't continue to a Master's degree program you should be prepared to go to work. As Alesi (2007) points out, this says nothing about "which occupational levels undergraduate programmes shall prepare [students] for and how Bachelor graduates should be trained in order to meet the requirements of the labour market." (p.86)

The questions about assessing the employability criterion are tangled in a web of institutional typology, degree of specialization, employer perception of the first cycle degree in relationship to short-cycle, intermediate credentials, and Master's degrees, the varying requirements of specific industries, the range of occupational responsibilities, and the cases of regulated occupations. There are no clear or easy answers.

So how do employers respond? Alesi interviewed two corporations' HRD people and one employers' association in Austria, Hungary, the Netherlands, and Norway. What do they look for on either side of the binary line?

For “non-university” graduates, people “who are able to start working. . .immediately within a given setting” and evidence good problem-solving skills;

For university graduates, “more universal competence combined with critical judgement and a deep theoretical knowledge base.” (p. 90)

And for university bachelor’s, those interviewed suggested that a thesis rooted in a problem of “practical origin or impact” would assist the transition to the labor market. In fact, the mere fact of a thesis indicated to potential employers that a student could organize learning with a modicum of autonomy—“regardless or whether or not the specific content [of the thesis] is relevant for the later occupation” (p. 94). The intelligent employer argument for generic competencies references the ever shorter life-cycles of products and services, and says that both specialization and broadening of knowledge can more easily be grafted onto a frame of competencies at later points in time. At least some of those interviewed indicated the importance for each program to specify “core competences” (p.91)

It is for these reasons, in part, that Alesi found employers very positive about the Bologna reforms, particularly in matters of quality and flexibility, and wanted to see the reforms both move quickly and not involve simple relabeling of existing arrangements. What the employers said reinforces the fundamentals of qualification frameworks, Tuning, and the content-oriented aspects of Bologna reconstruction: “whether a new type of degree will be accepted on the labour market or not depends foremost on the specific content of the respective study programme” (p. 89). Employers would also like universities to “encourage students to deal more with practical problems, for example by writing a Bachelor or Master’s thesis on a question which has a practical origin or impact in companies.” (p. 90) At the same time, they were not troubled by the shorter Bachelor’s degree provided that “programmes would concentrate on the core qualifications of the certain disciplines.” (p. 91) Of course this all depends on what sector of the economy is at issue, for example, the media were less concerned with specialization than were industrial employers (such as a construction firm in the Netherlands or an oil and gas corporation in Norway). As for particular job categories, there is no doubt that some require the equivalent of the new Master’s degree, e.g. R&D, some engineering fields, and law, whereas entry to production and logistics, sales and distribution and journalism would be open to both university and applied science Bachelor’s graduates

With this background, it is fair to ask the empirical question: are students who earn the new Bologna Bachelor’s degrees heading off into the workforce, or are they heading into Master’s programs? Systematic data may be hard to come by, but occasionally they break through the clouds. In 2004, the Hochschule Informations System (HIS) in Germany conducted a survey of those who earned Bachelor’s degrees in 2002–03, and broke out its analysis both by sector in the binary German system (university versus *Fachhochschulen*) and by field (Minks and Briedis 2005). The analysis was concerned principally with the election of second cycle study and with

mapping the movement of students (a) from one sector to the other, and (b) from one institution to another. Overall (not shown in Table 5 below) the HIS survey found not merely that 80 percent of university Bachelor's graduates continued their study in second cycle programs (both Master's and, since it was very much alive at the time, the old professional *Diplom*), versus 40 percent of the *Fachhochschule* Bachelor's recipients, but also that 55 percent of the university Bachelor's who continued to the second cycle (versus 35 percent of the *Fachhochschule* graduates) had made up their minds to do so from the moment they set foot in higher education. Table 3 sets forth the core results of the survey in a way that raises a complex of issues about student choice in a time of system reconstruction.

It is not surprising that the continuation rate to the Master's level of those who earned the new Bologna Bachelor's was high at a time when German institutions were still awarding substantial numbers of the old long first degrees, the *Diplom*, and the 3+2 cycle was not the default. When asked why they continued to the Master's level, two out of three respondents (with no difference by FH or university background) were not confident that the new Bachelor's degree would be sufficient to see them through to whatever path in life they chose. The author of this essay believes that behavioral economics will ultimately rule, that is, the *perception* that a second cycle degree will measurably enhance life chances—just as the old longer first cycle degrees had done—will result in an increasing percentage of European students seeking those degrees, hence putting stress on the capacities of higher education systems to accommodate them.⁸⁶ As this trend accelerates, global labor markets will force U.S. students to follow suit.

Table 3 also shows that penetration of the universities by *Fachhochschule* graduates, though modest, was notable in engineering, while when university graduates continued to the second cycle, they stayed in universities. And among university engineering graduates in this transitional period, *half* were continuing for the professional *Diplom* and not the Master's. Not shown in Table 3 are HIS survey results marking the tendency of those continuing to the second cycle to stay in the same institution from which they earned their Bachelor's degrees (about 70 percent do so), and that graduates in business and engineering were more likely than others to continue in a foreign institution, principally in the Anglo-Saxon world.

⁸⁶Martin Unger of the Institute for Higher Studies in Vienna contends that while the Austrian system is resigned to mass participation in first cycle degree programs, standardized examinations and e-Learning components of degrees result in a high drop-out rate that allows the system to limit second cycle entrants, hence reduces pressure on capacity.

Table 3. Second Cycle Destinations of 2002–03 German Bachelor’s Degree Recipients, by Sector and Selected Bachelor’s Fields⁸⁷

	Master’s in FH	Master’s in Univ.	Diplom in FH	Diplom in Univ
<u>From Fachhochschulen (FH)</u>				
Business	81%	8%	3%	8%
IT	76	18	3	3
Engineering	67	27	7	-
All	72	19	3	5
<u>From Universities</u>				
Business	8	84	-	8
Social Sciences.	-	91	1	8
Engineering	4	47	-	50
Humanities	2	83	2	13
Agriculture/Forestry	1	93	1	6
All	2	78	1	20

Note: Rows may not add to 100.0 percent due to rounding.

The Germans were prescient in collecting data on these issues. Other Bologna-participants will have to wait before assembling enough information to corroborate. Cappellari and Lucifora (2007), for example, speculate that when Italian data are robust enough, one might find that

“Firms may value the new first cycle degrees less than old degrees (e.g. because of reduced complexity of studies) such that students may respond prolonging their studies to obtain the additional two-year degree [the Italian *Laurea Magistralis*], thus accumulating more human capital than before.” (p. 5)

Nothing is certain yet, for, as Cappellari and Lucifora are quick to add, 2nd cycle (Master’s) degree attainment may turn out to be a less significant change than increased college going “for a wider social group.” Nothing is certain, in no small part due to “the scarcity of nationally representative micro-data” following recent reforms (p. 7), an observation that can be applied to a majority of Bologna-participating countries.

⁸⁷From Minks and Briedis 2005, page 85.

As the Bologna Process has taken hold, one observes distinct lines of three types of Master's programs—to which one adds a language grid—in the new European landscape: traditional academic programs, occupationally-oriented programs, and interdisciplinary programs. The language grid adds programs of all three types offered in English (the Netherlands Association of Universities estimates that 60 percent of Dutch Master's programs are taught in English). While the French are contemplating doing away with their traditional distinction between “professional” (occupationally-oriented) and “research” (academic) Master's degrees, when one reads program curricular statements on both sides of the binary line in other countries, there is no question that one is looking at distinct degrees.

For example, the two year (four semester) Master's curriculum in Medical and Pharmaceutical Biotechnology at the Fachhochschule KREMS in Austria basically says: you are going to learn business, marketing, and the regulatory environment first, along with statistical methods and quality project management. In the second semester you get to bioprocess technologies (such as fermentation, bioseparation, and recombinant protein production) and their management with process controls, production design, and equipment testing. The third semester brings in allied health standards such as pathophysiology, therapeutic strategies, regenerative medicine, and lots of lab work. In the fourth semester, you have a combination of project and internship. All of this is presented in very compact modules sequenced like a pyramid, and with laboratories replicating industry environments and industry management. This is not a research-oriented degree and does not pretend to be. When one examines the Bachelor's level program in the same field at KREMS, one marks an appropriate laboratory-oriented medical science curriculum, followed by bioprocess production systems, a touch of business, some statistics and IT applications, and a co-op. Without a lot more theoretical work, it is not sufficient to proceed to an academic Master's in, let us say, biochemistry, but it certainly flows into the consecutive Master's program at KREMS

Despite rhetorical commitments, access to the Master's level is not guaranteed in all Bologna countries, and regulations vary. As the European Students Union trenchantly observes, simply being considered for admission without prejudice (the rhetoric) does not mean access. While ESU cites a variety of financial considerations that put pressure on potential/actual Master's students, e.g. lower levels of state support and/or higher fees, there is also the matter of students changing fields from one degree cycle to the next or changing type of institution from “applied science” to academic or vice versa. There are capacity issues in some universities and fields, so it depends whether you continue in the same field at the same school (as the KREMS illustration indicates, no problem!) or whether you are changing schools and/or fields (problem!). Hence the birth of “bridging courses.” Anke Loux-Schuringa of the Office of Academic Affairs at the University of Amsterdam asks us to consider, for example, the Bachelor's degree recipient in law entering a Master's program in linguistics. The proportion of entering Master's students requiring bridge course work in such situations, she notes, has been in the 5 to 10 percent range, “but that proportion is growing as the age profile of entering Master's students [a direct

product of Bologna] grows younger.” Master’s access, with or without bridge programs, is obviously a complex matter determined by peculiarities of national systems, and yet another indication that Bologna behavior may be similar in form but definitely not standardized in details.

For example, some Portuguese universities established bridge programs for students caught in the transition from pre-Bologna to post-Bologna cycles. At the University of Coimbra, the administration was very careful to provide formulas for students who had not yet completed degrees under the old system and were moving into the new. The student’s credits are calculated, and if the student had earned fewer than required under the new system, the gaps must be filled first. A second plane of choices at Coimbra emerges with options for changing major. Yes, you can do this in the first cycle, but have to find an approved way to integrate your existing course work with a new education plan. And a third plane addresses transition to the second cycle: if the student picks a new discipline, the choice must be approved. If it is not approved or the student is not accepted in the new discipline Master’s for other reasons, the student can continue but only in the same field as the one in which the Bachelor’s was received. Alternatively, Coimbra offers a bridge program as a way of integrating courses from the first cycle into the student’s coming experience in the second, since there was no automatic transition from work in the old frame to that in the new frame. But Coimbra insists that the bridge course work must be in fields at least related to the student’s first cycle program.⁸⁸

Field variations sprout all over the evolving Bologna cycle system. In engineering, the Master’s may have been a by-product of repackaging at Karlsruhe University while at the University of Aberdeen in Scotland it is a super-honors program for high achieving students identified at entry to the first cycle Bachelor’s degree. When asked why music students (other than those in music education) would seek to continue at the Master’s level, Johannes Johansson, Rektor at the Royal Academy of Music in Stockholm, pointed out that the Master’s offers research opportunities “that open new contexts for performance, putting the student in a more liquid environment.” In the arts, then, Johansson added, a Master’s program “can put the student in the position of leading and producing a market, and not merely following it.” In other fields one might say that the Master’s degree has been turned into the equivalent of an upper division specialization or an outright second major. But fields leading to regulated or “chartered” professions evidence different profiles on the degree cycle landscape, some touched less by change in structure than by the atmosphere of reform generated by Bologna. Such degrees are also governed by European Union-wide rules concerning the recognition of professional qualifications (European University Association 2007). Medicine serves as our illustrative case.

⁸⁸Faculdade de Ciências e Tecnologia da Universidade de Coimbra, 2006. *Processo de Bolonha: Regime de transição na FCTUC*. Coimbra, PT: Author.

8.2 Degrees and The Regulated Professions: The Case of Medicine

The timing of medical education in European systems is very different from that in the United States. With the exception of experimental options (noted below), students enter medical programs directly from secondary school in the same manner as they would enter any other degree program. Are they prepared, with the same core science backgrounds required of pre-meds in the U.S.? In fact, yes. Medical degree programs are capped in terms of enrollments, hence admission is highly selective, and, as Sijbolt Noorda, president of the Netherlands Association of Universities emphasizes, one does not begin to qualify without the full pre-med science curriculum, including organic chemistry and molecular biology—taken in secondary school.

From the perspective of the European Medical Association (2005), medicine is a special case in the context of Bologna because:

- It has a fairly fixed length of study (as practiced, five and one-half to six years); and while it is a first degree, it is a Master of Science degree;
- It is subject to regulated medical curricula at the national level following its status as a nationally regulated profession;
- Its professional profile is strict, and, as such, cannot be linked easily to other degree programs (public health may be an exception);
- There are a limited number of places in university programs, and even more limited after the first year of study, i.e. you can't transfer in; and
- It is responsible to both ministries of education and ministries of health (which run the teaching hospitals and, in most countries, issue the professional recognition of the medical diploma).

Two-cycle medical degrees, however, are beginning to emerge, along with other variations on the professional paradigm. One might think that, reflecting the traditional basic science/clinical science organization of medical curricula, two cycles are natural. But the clinical is increasingly mixed with basic science in the presentation of the medical curriculum, subjects such as pathology are stretched out over more than three years in different contexts and cannot easily be divided up, and, according to the dominant view in the profession, there are no real labor market entry advantages for a Bachelor in medical science.

The Medical University of Innsbruck in Austria is typical of those medical programs declining to adopt Bologna cycles.⁸⁹ As Vice Rector Manfred Dierich explained, “We decided in 2002 not to break up our new program because clinical training was integrated from the first year, and intensifies with each subsequent year.” The Innsbruck faculty judged a Bachelor’s in medicine to be meaningless; and their organization and curriculum still prepares students for the Austrian probationary license at six years (Board specialty examinations come as much as six years after that). While rejecting the Bachelor’s degree, the Innsbruck faculty replaced the old gross medical specialization blocks with modules taught by teams from the various specializations. For example, the coronary and circulation system module involves contribution by faculty in internal medicine, pharmacy, and biochemistry. Such team approaches may be old hat in U.S. medical education, but the assessment of the World Federation for Medical Education suggests that was not the case for most of European medical education prior to Bologna.⁹⁰

As noted, some variations in the degree cycle presentation in medicine have emerged in practice. The first genre of variation draws on the U.S. model. The Medical University of Warsaw in Poland offers both a six-year traditional program and a four-year program, delivered in English, for non-Polish citizens. The four-year program is like ours in that it is open only to those who already hold a Bachelor’s degree and who have completed a pre-med curriculum (but this one allows for biochemistry, genetics, anatomy and other courses that would usually be taken only by a biological sciences major). When one compares the first year curriculum of the two programs, though, there are significant differences. The four-year program includes basic sciences (e.g. biophysics, cell physiology), special topics (e.g. medical parasitology), and medical ethics—none of which are in the six-year program—in the first year. The six-year program places a heavier emphasis on anatomy, and includes histology and medical informatics—neither of which is in the four-year program. Both programs include training in Polish and medical Latin, and both require a summer internship as a nurse’s assistant.

In the Netherlands one finds three different presentations of medicine. In the first (five out of the eight medical programs in the country), the student earns a Bachelor of Science after three years, a Master of Science along with the traditional “Artsdiploma” (allowing registration as an MD) after six, and a medical specialist certificate and registration after three to six more years, depending on specialty. In the second, there is a single credential, the Artsdiploma, after six years, and the residency/specialist term the same as in the first. One can ask whether the B.S. students have relevant options other than the medical M.S. If the first cycle is largely didactic and basic science oriented, and clinical settings don’t really dominate until the second cycle,

⁸⁹This seems strange in light of the finding of a MEDINE Thematic Network survey indicating that Austria was one of seven (it’s really eight) countries with two-cycle structures in medicine (Patricio, den Engelsen, Tseng, and ten Cate 2008). It could be just another case of confusing European data.

⁹⁰Quality Assurance Task Force, World Federation for Medical Education 2007. *Global Standards for Quality Improvement in Medical Education: European Specifications*. University of Copenhagen, DK.

then there are options, though few students are likely to take them. Indeed, the Netherlands Association of Universities estimates that 85 percent of those completing the first cycle in medicine continue to and through the second cycle. Karek Van Liempt of the University of Antwerp is thus justified in describing the first part of medical preparation to be a “move-on degree” without planning employability” (Van Liempt 2006).

The third Dutch medical model can be found at the University of Utrecht: a “graduate entry” medical program in a manner similar to Warsaw’s four-year post-graduate degree. This approach, while modeled on that in the United States, also took its cues from the Bologna two-cycle paradigm. In addition to a 180 ECTS Bachelor’s degree, the Utrecht Master’s in medicine is a 240 ECTS second cycle degree with a change-in-field. However, the change in field is slight: a Bachelor’s degree in biomedical science or a related field is required, i.e. you can’t get in with a psychology major and the pre-med course package.

The more noteworthy variation in the presentation of medical education can be found in Switzerland, and is noteworthy because it illustrates how the atmosphere of Bologna reforms can seep into unlikely quarters (deWeert *et al* 2007)⁹¹ The traditional program ran 11 years through residency, and required a dissertation in year 6, after which the degree of Dr. med. was awarded. Admission is by a general learned abilities examination like the MCATs (*Eignungstest für das Medizinstudium*) if there are more applicants than spaces, and for the academic year 2006–07 there were 2500 applicants for about 950 spaces. The 10-year completion rate is 60 percent, with another 12 percent earning a degree in a different discipline.

How does the Bologna-adjusted program work and why?:

Bachelor’s program	Basic medical science and clinical work integrated Bachelor’s awarded at Year 3
Master’s program	Dominated by clinical electives in years 5 and 6. No “dissertation.” No Dr. med. awards. Master’s of medicine in Year 6.
Entry to profession, at end year 6	<i>Staatsexamen</i> , i.e. like the Medical Boards in the U.S., provides entry to professional practice
“Residency”: an additional 5 years	Specialist exam at the end of the period

What does this change allow? It is still a six year program for future practitioners. While it is anticipated that 90 percent of those who earn the Bachelor’s would continue toward the professional qualification via the Master’s and clinical electives, the new curriculum offers a

⁹¹ The account in the text is drawn from this study. See <http://ec.europa.eu/education/doc/reports/doc/curricular3.en.pdf>

number of options for combining the Bachelor's in medical science with (a) either a second Bachelor's in fields ranging from economics to information technology and thus for assuming key roles in the health care system with high knowledge content of the core enterprise; or (b) a Master's degree in an allied medical field such as public health, nursing, or biomedical science. The reform also anticipates that the Bachelor's in medical science will qualify a student to move immediately into the labor market in the pharmaceutical industry (a significant presence in the Swiss economy).

Now, if that's all the Swiss reform was about, it could be seen as a creative provision of alternative but allied paths in the traditional route to professional and supportive careers in the health sciences. But this structural reform merged with other strains of change in European medical education had been underway since the mid-1990s. One of these was the dilution of the lecture as the dominant form of pedagogy under the recognition that lectures do not prepare students to be autonomous learners, and autonomy drives the lifelong learning required by the medical profession. So one saw growth in student group work on clinical tasks, instruction in physician/patient relationships and behavior conducted directly in hospitals, "private tutorials" which can be better described as shadowing, i.e. the student following a physician in daily tasks, skills labs, and problem oriented tutorials for groups of 8-10 students (think of a typical script for an episode of "House"—minus all the personal relationships among physicians, that is).

A second strain of change—and one not unfamiliar to U.S. medical education—stems from a governing notion of health, as opposed to disease, as the determinant of medical practice. Health involves more than the physical: it also encompasses the psychological and the social. With this more comprehensive ideal, the physician becomes more than a scientific professional: the physician is also a communicator, a manager, an active listener who respects the patient's language and interpretation of his or her physical state. What that meant in curriculum change was more emphasis on the development of soft skills and supportive knowledge from related fields. That, in turn, fit neatly into the structural reconstruction of the medical degree program as a 3 + 3 (or, more accurately, a 3 + 2 +1) program.

How much can we attribute these changes to Bologna? Until 2004, the curricular and instructional improvements in Swiss medical education were scattered and ad hoc. In that year, the professional medical school and medical associations promulgated a "Swiss Catalogue of Learning Objectives for Undergraduate Medical Training" (Bloch and Bürqi 2008), something that looks a lot like the result of a "Tuning" process, and in 2006 the basic law governing the medical professions was revised, canonizing the Catalogue and the Bologna degree cycles applied to medicine. Coincidence? No. Bologna gave existing tentative movements toward reform an octane boost—and not only in Switzerland.

In Scotland, for example, we can look at the rewriting of the medical curriculum between 1998-2004 along problem-based lines. That sounded just fine until students at the University of

Edinburgh were asked for their opinions in 2004, and said they were not getting sufficient knowledge of anatomy and pathology, which aren't exactly peripheral subjects in the medical curriculum. Evidently, some students slowed down, and may have wearied of the program. So the 2007–08 regulations for candidates for the Bachelor of Medicine or the Bachelor of Surgery at the University of Aberdeen offer candidates who have not completed degree requirements within six calendar years of matriculation intermediary credentials depending on the number and level of credits earned, most notably, a Bachelor of Medical Science that obviously does not qualify someone to practice medicine (University of Aberdeen 2007). This degree, along with a lesser certificate or diploma, is another example of a credential buffer: the student is not a complete drop out; if they leave the system, they leave with a credential (echoes of the Swedish “Diploma” and the German *Vordiplom*).

Medicine is used in this monograph to illustrate relationships between the Bologna environment and the education programs of regulated professions. The medical preparation pathway and curriculum, though, is far less subject to national borders than law, for example, and patients are far more likely to move across borders in search of treatment than clients in search of legal defense. Whatever openness European medical educators and medical students express toward core Bologna tools such as ECTS and Diploma Supplements, a truly continent-wide medical practice renders change in preparation slow and scattered. But leaving aside degree cycles, the intersecting vectors of other Bologna dynamics and “action lines,” e.g. increased flexibility, and mobility and joint degrees, are starting to break the inertia of European medical education. It is another story worth close watching.

8.3 Intersection of Degree Cycles and the “Social Dimension” of Bologna: The Short-Cycle

The ideal of expanding participation in higher education by underserved population groups was quietly present in the initial Bologna vision, but became more prominent and demanding of attention as reforms spread. The so-called “social dimension” of Bologna, championed by the European Students Union, came to deal with a variety of issues, including net costs of higher education, living arrangements, student advisement and support, and most of all, more democratic representation in higher education. Depending on which underserved population group is at issue on the European landscape (isolated rural, students with disabilities, children of immigrants, adult working class, etc.), a number of mechanisms to increase access—familiar to us in the United States, and perhaps simply taken for granted—are available. We too often forget that if the U.S. higher education system did not offer community college Associate’s degrees and part-time status, our “walking through the door” access rates would be miserable. These two structural features of a mass higher education system were not common across the 46 Bologna countries prior to the 1990s. But both are now evidencing considerable expansion, and with that expansion, at least the maintenance of access rates. When one adds processes for recognition of prior learning (RPL) and distance education opportunities to the portfolio, the

result is a fairly comprehensive agenda. Most of this will be discussed in Section 9.2 below, but this section is devoted to the intersection of degree cycles and the social dimension in the form of the short-cycle.

Early in Bologna history, a comparative account of existing short-cycle credentials was offered (Kirsch, Beenaert, and Nørgaard 2003). Using “tertiary short cycle” (TSC) as a broad brush, the authors claim that it affected 2.5 million Euro-students in the early years of this century, that it was delivered by a wide range of institutions, that it was often conducted in cooperation with non-educational partners (firms, unions, professional associations, etc.), that it diversifies both the range of subjects and the range of pathways for postsecondary study, and that it draws in a wider range of age groups than traditional higher education, hence enhancing access. In European parlance, TSC is distinguished from “postsecondary” education and training, but the Kirsch, Beenaert, and Nørgaard study recommends that both be considered under Bologna. The study was written before the development of the Dublin Descriptors, let alone the Bergen ministerial meeting of 2005 when the short-cycle, considered as part of the Bachelor’s, was definitely included in the Qualifications Framework for the European Higher Education Area. In this respect, one can read it as both a successful case of advocacy and a case that no longer needs to be made. It also comes with the rhetoric and perspective of the Lisbon Strategy, which renders it a bit defensive at times. What could be said about the myriad of TSC credentials offered at the time, whether judged to be tertiary-level education or not, is that they provide very focused occupational preparation in administration, biotechnics, business, catering and hospitality, crafts, health care, ICT, product development, social work, avionics, equine studies, retail studies, e-business, tourism, visual aids, police studies (p. 21-22). Chambers of Commerce and trade unions can be involved in curricular design and standards in such programs, though their degree of involvement varies widely by country (p. 25). Bologna accounted for the short-cycle, but was selective about what it took from this universe.

The initial two-cycle vision of European degrees in the Sorbonne Declaration and the Bologna Declaration first became three with the inclusion of doctoral degrees, but then had to recognize those tertiary credentials of less than three years that enabled students to move into the latter phase of first cycle degrees. U.S. readers can think of them in terms of our Associate’s degree. There are some major differences, however. First, for the Bologna degree cycle paradigm, a true short-cycle degree is considered *part* of the first cycle, and not necessarily a terminal degree with no continuing connections. Secondly, to reinforce those connections, along with the position of the short-cycle as *within* the first cycle, European institutions responsible for short-cycle education are either those that offer Bachelor’s degrees themselves (usually the “applied science” institutions such as the *hogescholen* in the Netherlands) or are formally allied to Bachelor’s degree-granting institutions (e.g. the *Instituts universitaire de technologie* [IUTs] that are formally part of the universities in France).

Kirsch, Beenaert, and Nørgaard accounted for those TSCs that were, in effect, part of the bachelor's cycle. The Swedish Diploma can be seen as a default or insurance degree in the course of ordinary baccalaureate study, and, in fact, there is no legislation that specifically deals with the position of the Diploma and no separate course system (p. 42). The Foundation degree in the UK (as we'll see in detail below) is occupationally or subject-oriented, but in a way that leads directly into the 2nd or 3rd year of a regular Honors degree program. The French DUT was designed as a competitive, workplace-based, terminal degree, but with the addition of the *licence professionnelle* in the French credential portfolio, as a path to the bachelor's.

When you have both TSC and a first cycle degree in the same institution, the EURASHE authors contend, one finds:

“. . . first. . . an impact . . . on the quality of the education itself as the same teachers will both be involved in sub-degree and degree teaching. Secondly it facilitates the counselling of students who may be interested or who have the potential to go on to the degree courses. . . .” (p. 55)

let alone the benefits of contact with students in degree courses, and provides the familiarity and motivation for continuing or recurrent education. The EURASHE authors are particularly praiseworthy of the Irish Institutes of Technology in this matter, so let us illustrate:

8.31 The Irish Higher Certificate

The tertiary short cycle degree in Ireland is the Higher Certificate, and these are granted in arts, business, engineering, and science. The Higher Certificate (HC) is considered to be a “major award,” and is to be distinguished from the Higher Diploma offered in the same subjects and on the same level of the Irish Qualifications Framework with Honors Bachelor's degrees. Set in the Irish Qualifications Framework we discussed (in Section 2.2 above) at Level 6 (out of 10), and just below the ordinary Bachelor's degree, the HC is described as a “multi-purpose award type,” and carries broad qualification criteria in eight categories:

- Knowledge-breadth, described as “specialised knowledge of a broad area.”
- Knowledge-kind, indicating “some theoretical concepts and abstract thinking.”
- Know-how and skill-range, requiring demonstration of a “comprehensive range” of specialized skills and tools.
- Know-how and skill-selectivity, requiring demonstration of formulating “responses to *well-defined* abstract problems [ital mine]”
- Competence-context, i.e. the “wide variety of contexts” in which one applies knowledge and skills.
- Competence-role, i.e. both the exercise of autonomy and demonstrable functioning within “multiple, complex and heterogeneous groups”

- Competence—learning to learn.
- Competence—insight, requiring the student to “express an internalised, personal world view.”

(HETAC 2004, p. 14)

What do Irish HC programs look like? To illustrate, let’s take two related HC programs from the School of Built Environment, Limerick Institute of Technology. Admissions requirements are the same in terms of grades on secondary school leaving examinations, with math required as one of the five subjects in which those grades must be earned.⁹²

	<u>Construction</u>	<u>Civil Engineering</u>
Labor market reference:	Housing, offices, etc. following the designs of architects and engineers; management and coordination of sub-contractors and suppliers.	Infrastructure works: planning, design, construction, and maintenance.
Labor market activities:	Surveying, drawing, testing of materials, cost-estimation, supervision of crafts operatives, organizing equipment.	Surveying, CAD, sampling and testing of materials, site supervision.

So we start with two programs with not much of a difference in labor market activities. It sounds like the same job distinguished only by the nature of structures, e.g. buildings versus bridges and airports. But when one pays attention to the content underlying the degree titles, the distinctions emerge. In the first year, construction technology, surveying, and graphics are common, though with different emphases. The Construction people add building services and math as applied to structures; the civil engineering folks add materials, structural engineering, and math in combination with IT. In the second year, the Construction students repeat most of the same subjects at a more advanced level and add management studies and building law, while the civil engineering students expand their study of materials, surveying, and structural engineering/engineering graphics, but add public health. Neither program is a first degree level undertaking, but both can lead to 1st level degrees, principally in construction management, site management, health and safety, and/or civil engineering management. There is no real road to a civil engineering bachelor’s without a great deal of course work beyond the HC.

⁹²Source: www.lit.ie/departments/Builteng/LC451.html and LC411.html

8.32 Some ISCED Guidance

There are some variations in all this, and in order to sort them clearly, U.S. readers should know a little bit about the International Standard Classification of Education (ISCED) taxonomy (UNESCO 2006).⁹³ The ISCED classification system sets education programs in six (6) levels, each with sub-categories. The highest level, 6, is labeled “second stage of tertiary education,” leads to “advanced research qualifications” such as the Ph.D., and is not of concern to us here. Instead, we work backwards from ISCED Level 5, and Figure 14 sets forth a condensed account of the relevant levels.

**Figure 14:
Basic Descriptors for ISCED Levels 4 and 5**

Level 5A	Tertiary programs “that are largely theoretically based” and provide “sufficient qualifications” for moving on to “advanced research programs” and professions “with high skills requirements.” These programs are a minimum of three years of “full-time equivalent duration,” and assume the completion of secondary education. Master’s degree programs are included here along with Bachelor’s, though the new version of ISCED will probably change this classification.
Level 5B	Shorter Tertiary programs than those covered in 5A, and that “focus on occupationally specific skills geared for entry into the labour market, although some theoretical foundations may be covered.” Level 5B programs are of two to three years duration, and do not provide access to advanced research.
Level 4A	Non-Tertiary postsecondary programs that prepare students to enter Level 5 programs. We might describe them as bridge programs for secondary school graduates who “did not follow a curriculum which would allow [direct] entry to Level 5.” The “typical full-time equivalent duration” of Level 4A programs is “between 6 months and 2 years.”
Level 4B	Non-Tertiary postsecondary programs that do <i>not</i> prepare students for level 5. These are vocational courses designed “for direct labour market entry,” with more specialized content and more complex applications “than those offered at the upper-secondary level.”

⁹³ The ISCED system is currently under revision, in part to take account of both the new qualification frameworks and changes in institutional program offerings.

The reason we need the ISCED descriptions as reference is that in some national systems, short-cycle degrees are offered in institutions that straddle levels 4 and 5, while in others, these credentials are found wholly in Level 4, and in still others, wholly at Level 5B. So when the European Commission reports that 15 Bologna countries offer short cycle degrees (Eurydice Network 2006), these credentials are not offered in the same way. For example, in Portugal, the CET (*Cursos de Especialização Tecnológica*) programs are postsecondary ISCED Level 4A, and stand between secondary school and either the polytechnics or universities. They award the *Diploma de Especialização Tecnológica* (DET) that carries between 60 and 90 ECTS, an amount that can place the recipient into the second year of an ISCED 5A or 5B Bachelor's program (more likely the latter). For a CET program to be approved requires justification for its offering, specifications for *numerus clausus* admissions, curricular coverage, expected learning outcomes, an inventory of necessary equipment and space, and evaluation plan. Entry requirements for an institution are thus a form of quality assurance. The CET is comparatively new, and under a 2006 law on short cycle degrees, is seen in national policy more as part of the lifelong learning objectives of the Lisbon Strategy than as a component of Bologna Process reforms. The traditional age cohorts in Portugal have been shrinking and will continue to do so, and it is hoped that the CET will bring in adults from the workforce (Kaiser *et al* 2007), a not uncommon function of short-cycle programs everywhere, including the U.S.

8.33 The French DUT and BTS

The *Diplôme Universitaire de Technologie* (DUT) has been a fixture of the French system since 1966, and is now offered principally through over 100 *Instituts universitaire de technologie* (IUTs), each of which is attached to a French university, often on the same campus. It is an ISCED 5B credential, and is definitely distinguished from the *Le brevet de technicien supérieur* (BTS) at ISCED 4, which are delivered principally by sub-baccalaureate *lycées* and *colleges*. To insure that the BTS is nonetheless considered tertiary education, a series of ordinances by national councils were issued in June and July, 2008 (MEN 2008) that provide a detailed list of competencies that cut across all programs dealing with the management of enterprises (assistant managers, assistant to managers, business communication, client relations, bookkeeping and management, transport, etc.). What are BTS students required to demonstrate (*compétences attendues*) in these managerial support preparation programs? Under each generic managerial role objective, e.g. initiating and leading, one find a series of statements about the meaning of the terms and their execution in enterprises, followed by a set of performance expectations with an emphasis on the verb, e.g. (in the case of initiating and leading):

- Characterize and distinguish entrepreneurial logics and managerial settings in the work of business;
- Identify and analyze the stakes attached to each of the logics; and
- Demonstrate and prove how these [logics and settings] are complementary.

These are not statements of “competence” as we would understand the term. They are prods for assessment that contain fairly explicit learning outcome expectations. There is no doubt what is called for here is theoretical and tertiary-level. The availability of the *référentiels* (the formal program descriptions filed with the Ministry in its RNCP) for BTS programs is limited, and some follow old ordinances (of 1997 and 2000), but those examined, e.g. for *Dietetique*, map learning tasks for every semester, and provide maps of assessment schedules, indicating the type of assessment (written, oral, practical), its duration (1-4 hours), and its general content, e.g. two situations to evaluate in biochemistry and physiology (MEN 1997).

As for the DUT programs themselves, the presentations for the Ministry follow the same form and narrative. Three were examined: (1) management of logistics and transport (MEN 2005a); (2) communications (MEN 2005b), and (3) legal careers (not law, not paralegal, but close; MEN, 2006). Both logistics management and legal careers define themselves by labor market profiles (*debouches professionnels*), i.e. what people who have such preparation do and/or where they can be found in the workplace. For example, the Legal Careers presentation notes that these professionals assist lawyers and ministry officials in providing information to clients and managing specific dossiers, or in private enterprise assisting the legal director or director of human resources in matters of claims and relations with external counselors and contractors or in insurance companies evaluating tariffs and risks. For logistics management, profiles of graduates have them managing physical distribution, international transportation, procurement of manufacturing sites, and post-sales support, with parallel tasks in transport and distribution industries.

Competencies for Logistics Management are spelled out in detail in criterion referenced statements for each semester of study, with the contents of competence accordingly listed. For example, the first two semesters require study of English, as the end of which the student must be capable of:

- Speaking in public on current themes, conversing with an interlocutor,
- Reading professional documents, and
- Drafting commercial correspondence.

Covering all four language skills, the competency statements here do not say “how well” the student must perform, but the tasks themselves set a benchmark level of proficiency. The content of such performances must reflect linguistic sensitivity, standard vocabulary and grammar, with sociocultural, economic and political topics concerning [English-speaking] countries, and with expressions commonly used in the professional life of logistics and transportation. The same type of statements (competence and content) are set out for economics, organizational theory and behavior, general principles of law, commercial law, and the law of transportation. These—and others—are not separate courses. They are learning outcomes to be reached in whatever activities the student engages and demonstrated—by

whatever means a faculty determines—by the end of the period marked. Remember that DUTs are two-year degrees analogous to our A.A.S., but obviously a cut above those since (a) most traditional-age entrants to DUT programs have passed the French *Baccalauréat*, and (b) roughly two-thirds of DUT recipients continue their education in the university across the street. These are not marginal students.

The presentation of competences for the DUT in “Information–Communication,” with its optional tracks in journalism, public relations, organizational communications, and publishing, is handled differently, using the course module as the unit of analysis/reference, and with a temporal workload stamp for each module. Interestingly, the first semester of the program looks like a cut-out from U.S. general education, with economics, the epistemology of information, an integrated sociology/anthropology/psychology module, and an open slot the student can fill with history, geography, literature, arts, or science. It all adds to 130 hours of workload (fairly intense). Each module carries a one-sentence “objectives” statement, and a short list of competences. After two semesters, the option tracks kick in under the banner of “professional methods and practices. The modules are still the governing force, and brevity in competency statements is still the preferred template.

The point of summarizing the contents and learning objectives of these DUT programs is to indicate that, in at least one case of short-cycle degrees (one could add examples from some of Denmark’s “Academy Profession” A.A.S.-equivalent degrees⁹⁴) in which access is not open-door, that the competences embedded in the program qualifications signal that the student has a strong enough academic background to engage in true tertiary-level work. At any one IUT, the DUT offerings are limited in number (e.g. six programs at the IUT *de Créteil-Vitry* allied to the University of Paris 12 val de Marne) and driven by their articulation with the first-cycle *licence* and *licence professionnelle* degrees offered across the street. Transitions are seamless.

Indeed, in 2005, almost 80 percent of those earning DUT degrees continued their education, 29 percent in the general *licence* degree programs, another 27 percent in the new *licence professionnelle*, 15 percent in engineering schools, and 7 percent abroad (UNPIUT 2008, p. 27). Some 57 percent of this group earned their next degree within one year of receiving the DUT (p. 29). As we will observe of Foundation Degree statistics from the UK, these aligned degree structures, from short-cycle to first-cycle, are very effective.

8.34: The Foundation Degree in the UK

While the Foundation degree in England/Wales/Northern Ireland is a recent innovation, it has a sufficient history to illustrate the possibilities of new approaches to the short-cycle. The degree debuted in 2001, and by 2007 it was estimated that 60,000 students were enrolled in its

⁹⁴Offered by 80 academies (*Erhvervsakademiet*) and technical colleges, and enrolling 18 percent of students in Danish higher education.

programs, 64 percent age 21 or older when they first entered (HEFCE 2007). The two-year degree was designed with employers to integrate academic and work-based learning, but has turned into what we, in the United States, would call a transfer degree—not a “General Studies” transfer degree, rather one devoted to a “foundation” in a field. There are 23 fields, ranging from bioscience to business to performing arts to those closer to A.A.S. fields in the U.S. such as hospitality and tourism, and transport and logistics. All course modules are “validated” (reviewed and approved) by a university, and delivered either by the validating university or (in a majority of cases) by what is known in the UK as a College of Further Education.⁹⁵ When the Foundation degree came in to the UK, half the students were taught in higher education institutions, and a majority of those taught in Colleges of Further Education were dual-enrolled in an HE institution, thus basically in a franchise arrangement (Parry 2006a).

More to our interest, what happens to students in the Foundation degree programs? They must be doing something right in the UK with this short-cycle degree: roughly half of those who entered a full-time two-year program and those who entered a part-time three-year program earned credentials on time, and roughly another 30 percent were still enrolled.⁹⁶ Of those who earned a Foundation degree in 2003–04, over half (54 percent) continued in a 1st cycle honors program the following year, and of that group, 71 percent earned the honors degree.⁹⁷ To be sure, these achievements are facilitated by the fact that, for the vast majority of Foundation students, the same institution delivers both foundation and honors programs and awards both degrees. This arrangement is a close relative of the French sequence of a DUT delivered by an IUT which, in turn is affiliated with a university that receives the IUT students into its *licence* or *licence professionnelle* programs.

Though its creation was not a consequence of the Bologna Process, and though a comparatively small portion of UK students are involved, we can still ask whether the

⁹⁵This is not the place to elaborate on the history of the further education sector, but “FE,” as it is known, covers a wide range of institutions maintained principally by local—and not national—education authorities. We would characterize them as open door schools of adult and continuing education, delivering academic courses at the upper secondary school level, occupational curricula for the crafts sector, technician training, fine and commercial arts and design programs, etc. For purposes of understanding short-cycle degrees, the FEs are “bridge” institutions.

⁹⁶Comparable data for beginning two-year college students of all ages in the United States show a 15 percent Associate’s degree completion rate in three years, with 25 percent still enrolled at that point. For traditional-age beginners (20 and younger) those rates are slightly higher, and for older students, slightly lower. Source: National Center for Education Statistics: Beginning Postsecondary Students Longitudinal Study, 1995/06–2001, Data Analysis System On-Line.

⁹⁷U.S. figures for traditional-age beginning students only are comparable to those for Foundation degree students (who tend to be older). Within the 8.5 year postsecondary history of 1992 secondary school graduates who entered two-year institutions and earned an Associate’s degree within four years, 56 percent transferred to a four-year college, and, of the transfers, 79 percent earned a Bachelor’s degree by December, 2000. Source: National Center for Education Statistics: NELS:88/2000 Postsecondary Transcript File (NCES 2003–402).

Foundation degree approach serves the social dimension agenda of Bologna? All the data from the Higher Education Funding Council for England tell us is that “the proportion of entrants from *low participation neighborhoods* [italics mine] was higher than generally found in undergraduate programmes.” The Foundation Degree also serves as a “second chance” function for adults. For those adults, the target is the first year of university programs, and articulation agreements are well-defined for this purpose. As Parry (2006b) observes, for traditional-age students on the more traditional pathways, the target is entrance to the second year (in England) or even the third year (in Scotland) of the Honors Bachelor’s degree, whether that degree is offered by the same institution or another (in which case, we describe the movement as “transfer”). However noble these objectives, the HEFCE reports that, with the rise of the Foundation degree, enrollments in other transitional credential programs at the ISCED 4 and 5B levels have declined (HEFCE 2007), so the result is a net wash for access.

8.35 The Netherlands’ Associate

The Bologna Process has had an inconsistent impact on the emergence and refinement of short-cycle degrees. While the Netherlands introduced 57 explicitly named Associate’s degree programs, offered through 20 *hogescholen* and two private institutions, short-cycle degrees in Austria have disappeared. The previous Austrian non-degree postsecondary cycles, used principally for teacher education and social work, have been transferred into the new degree structure, and are now full first cycle credentials with a higher degree of theoretical content. As Gottfried Bacher of the Austrian Federal Ministry of Science and Research emphasized, the more vocational programs at the ISCED 4 level (e.g. from the so-called “2 year *Kollegs*” in Austria) are walled off from the tertiary system.

The Netherlands experiment illustrates the intersecting roles of business/industry associations, national legislation, and ministries of education in the story of Bologna degree cycles. A previous class of short-cycle degrees (one to three years) existed in such fields as business and tourism, but could not lead to the *hogeschool* Bachelor’s degree programs (old style). When the *hogescholen* began planning for the two cycles under Bologna, the Ministry judged these short-cycle credentials insufficient to lead to the new Bachelor’s either, so they were phased out. The shape of the new short-cycle degree, however, was driven by small and medium sized firms which made the case to both the Dutch parliament and the Dutch Ministry of Education, Culture, and Science for a credential that was between vocational education and the Bachelor’s degree, and that could serve objectives of upskilling of the workforce.

The Ministry conducted a feasibility study, and designed experiments. The Dutch Parliament did not think experiments were sufficient, hence the full pilot programs at ISCED 5B. The primary selection criteria for the pilot institutions was the capacity for attracting new student groups to higher education (adults, employees, students coming out of the vocational secondary school track), i.e. expanding access under the social dimension objectives of Bologna.

According to Floor Boselie of the Dutch Ministry, the data so far say that this objective is being met in the first 11 programs established (there are now 57 programs).

A final decision as to whether the Associate's degree will take its place in the Dutch portfolio of credentials will be made in 2010, based on an evaluation focused on the following questions:

- Do the degrees, taken as a whole set, lead to an increase in the number of students in higher education?
- What types of students are choosing Associate's programs?
- Has the number of Bachelor's students [in the HBO sector] increased as a result of the Associate's programs?
- Are there really jobs that can be performed by students earning these degrees [a validation of the relevance of the Associate's program to the labor market]?

The Associate's degree is comparatively unknown and invisible in the Netherlands at present, notes Marlies Leegwater of the Dutch Ministry, adding that the term itself is rather foreign. So if the evaluation is positive and the degree is formalized across the HBO sector in 2010, a public awareness campaign will be necessary.

For U.S. readers—and our higher education governance authorities—the most important feature of the European short-cycle degrees that were born, expanded, or modified since the advent of the Bologna Process is their position in relation to both Bachelor's degrees in their respective national systems and (in some national systems) to postsecondary occupationally-oriented credentials that are not considered tertiary education. For the most part, they are true parallels to the A.A.S. There is nothing parallel to an A.A. general studies degree. To us, they argue not so much about expanding access (because our Associate's degree programs already do that), but in favor of expanding the “alliance”-type programs one sees in some state systems, e.g. Maryland (and, in a different model, Michigan), in which the student is admitted to both the community college and a four-year institution simultaneously, stays in the community college environment until a set credit threshold has been reached and “gateway” course requirements met (all the time with access to the facilities and services of the four-year school), then moves over, thus by-passing the traditional transfer process. In these arrangements, if the student did not earn an Associate's degree in the community college, it is awarded retroactively at, for example, the 66th credit in the four-year institution. Not a bad idea for access of a different kind!

9. The “Social Dimension” of Bologna: Providing Multiple Pathways

U.S. higher education is long-accustomed to the by-products of massification in the behaviors of “non-traditional” student populations, so much so that the term “non-traditional” has lost its bite. In what would be called tertiary education in Europe (that is, the universe of institutions that award at least the equivalent of an Associate’s degree), 28 percent of U.S. entering students are 21 years old or older, a somewhat overlapping 32 percent are part-time at some time in their first year, and another somewhat overlapping 23 percent are from low income families⁹⁸—and that is just the beginning of mapping the putatively “non-traditional” universe. Despite these proportions, our access efforts are focused principally on traditional-age students, principally racial/ethnic minorities, who we expect to attend in traditional full-time status mode. The Bologna social dimension approach to increasing participation in higher education has adopted a different set of mechanisms and focuses on different populations defined in very different ways.

Zgaga (2007) reflects that when the term, “social dimension,” first appeared in the Lisbon Strategy documents, “it was quite a vague expression,” but after it was adopted into Bologna at the Prague ministerial meeting in 2001, “it has become one of the most quoted terms in Bologna discussions.” (p. 108) By one argument, picking on statements from the Bologna ministerial communiques (most notably in the bundling of the social and external dimensions action lines in the 2005 Bergen communique), the social dimension is part of what would make the European Higher Education Area attractive and competitive in a world higher education market (part of what Bologna calls the “external dimension”). As such, when you look closely, the “social dimension” was “connected mainly to mobility issues,” (p. 109), but that’s hardly the form in which it is present in the current Bologna portfolio.

The expression is no longer so vague. The Bologna Working Group on Social Dimension (2007) was very explicit as to the objective: “the student body entering, participating in and completing higher education should reflect the diversity of our populations” (p. 11). That phrasing still leaves some doors open, e.g. the meaning of “reflect” and the definition of sub-populations, but the Working Group makes it clear that the definitions and processes will reflect “the social and political culture” and “the systems and structures of education in the different states” (p. 11). It’s another case of convergence: Bologna countries will sing in the same key on the social dimension, but the melodic line and improvisation will vary. In a very smart reflection, the Working Group felt that “it is not appropriate to narrowly define the social dimension or suggest a number of detailed actions that might be unduly difficult or inappropriate to deliver for all countries involved” (p. 11).

⁹⁸National Center for Education Statistics, Beginning Postsecondary Students Longitudinal Study, 2003-04, Data Analysis System (on-line).

It is hard to see how the two action lines of social dimension and mobility are linked outside of the fact that they were bundled in that communique following the Bergen ministerial meeting. The thin reed of relation is that of finance, but even there, the portability of grants and loans for mobility purposes is not of the same order as basic support required for access for students of limited means or students with disabilities or students from isolated rural areas or older working students. The argument (Bologna Process Working Group 2007) seems to be that if the student body reflects the diversity of national populations, the EHEA will be more attractive to foreign students. But one is justly skeptical that foreign students know what the diversity of a particular national population means. They select a university/program, with location, location, location as an equal criterion.⁹⁹ If Poland or Norway defines its principal under-represented population as “rural and isolated,” and if that population is more aggressively recruited to tertiary education with all the Bologna flexibility devices, how does that affect the attractiveness of the Polish or Norwegian system to students from China, Ghana, or Argentina, for example? The Working Group observes that strengthening the social dimension of higher education in the Bologna countries “will foster social cohesion, reduce inequalities, raise the level of competencies in society, and maximize the potential of individuals in terms of their personal development and their contribution to a sustainable and democratic knowledge society.” (p. 12) That’s very nice and true, but social cohesion, equality, etc. makes whole *countries* attractive living environments; there is no auto-direct link to the attractiveness of the higher education system. The Working Group would respond that participation by the full range of demographic groups in a country “different perspectives meet, challenge and develop the academic culture and approaches to teaching and learning,” hence yields an “environment that enhances the quality of the student experience,” hence will be attractive to students and faculty from other countries. (p. 12) To put it gently, there are some leaps of faith in this.

Fortunately, the Euro-attractiveness (or “external dimension”) theme seems to have faded on the canvass of the social dimension, and the social dimension’s focus has become, in the words of the communique following the London meeting of Bologna ministers “learning pathways into and within higher education.”

In providing those pathways, most European countries face a challenge of overcoming prior tracking in primary and (particularly) secondary school systems, a prominent feature of European education that the Bologna Follow-up Group recognizes as a “social and cultural experience” that hardens negative or indifferent perspectives on further schooling and its value. While we may study and admire what the Germans or Danes, for example, do in vocational high schools, the Bologna social dimension portfolio asked how one could bring these students into the higher education system at later points in their lives.

⁹⁹For example, the four German universities with the highest number of foreign students in first cycle degree courses in 2008 were the Technical University of Berlin, the University of Munich, the University of Heidelberg, and the University of Frankfurt-am-Main (DAAD and HIS 2008, table 1.9.1).

Whether the various strategies adopted succeed is an open question. The most fundamental problem, acknowledged in bold by the Working Group on the social dimension, is lack of data. No survey (not even *Eurostudent III*) covers all the potential definitions of populations, and the information from individual countries is sporadic, inconsistent, and not comparable. As the Working Group notes (and *Bologna With Student Eyes 2007* concurs):

“. . .not all Bologna countries are covered, there is no common deadline for surveys, requirements for indicators need to be matched with data availability and comparability, statistics from different sectors need to be brought together to get a fair picture of the social dimension and most of the currently available data is not appropriate for analysis of change.” (Bologna Process Working Group on Social Dimension 2007, p. 9)

For student socioeconomic background, surveys invoke—differentially—parents’ education, parents’ occupation, family income, housing stock, and, most notably, postal code economics. For example, a UK project targeting the “social class achievement gap” uses “low participation areas” as proxies for analysis, though it brings individual students eligible for free school meals (very simplified, where the family’s annual income was less than about \$28,300 in 2006-07) on the radar screen as well, along with a bi-modal analyses based on whether parent’s were manual or non-manual laborers, i.e. it considers both macro and micro points of reference (Department of Education and Skills 2006). But no two of the major pan-European surveys employ the same proxies. We will talk later about ways to combine the virtues of European geocoding (housing stock, postal code economics) with SES for a data system that would better pinpoint low participation populations, but for now it is important to note the limitations of Bologna-wide tracking, particularly when it comes to assessing whether access, participation, and path strategies produce a lessening of inequalities.

What tools of inclusion are observable on the European higher education landscape? We choose two that are also present in the U.S., though we don’t usually acknowledge them as tools of *our* “social dimension.” While neither of them is a Bologna-creation in Europe, they are affected by Bologna, and illustrate its “flexibility” mantra in providing opportunities not merely to enter higher education, but to persist as well. And both of them intersect degree cycles and ECTS in particular among the core Bologna action lines.

9.1 Part-time Status: A Key Intersection of Degree Cycles and the “Social Dimension” of Bologna

U.S. higher education offers a quilted and ambivalent approach to the part-time status of undergraduate students (we more or less expect our *graduate students* to be part-time, as do other countries). We have federal financial aid regulations that do not provide eligibility for credits that do not count toward a degree (e.g. institutional credits earned in remedial courses). We have students who register for a full-time load, and within two or three weeks, drop enough

courses to render them part-time, and we don't seem troubled by that behavior. We have students simultaneously enrolled, part-time, in two institutions, whose credits would add up to a full-time load, but who are classified as part-time. We can't live without part-time students, particularly in community colleges. Our open door institutions are even open for incidental drop-ins. "One-course, good-bye!" and we still count you as a degree candidate. We run summer terms (with over half of traditional-age undergraduates participating; Adelman 2006, p. 189) in which credit loads are, in comparison to academic year terms, part-time. All this does not make for easy enrollment management or data reporting, but it does enhance "walking through the door" access, and may even enhance persistence for students with family and job responsibilities who are committed to completing credentials, no matter how long it takes. The growth of part-time enrollments in the Bologna Process countries reflects a very self-conscious access mechanism, e.g. the Swiss ordinance and guidelines for implementing Bologna included a special note on part-time status as contributing to "equal opportunity," i.e. to the social dimensions objectives of Bologna (Swiss University Conference (SUK / CUS) 2006).

Prior to Bologna, part-time status existed in a number of European countries, though it was hardly the norm. Part-time undergraduate students are traditional in the UK, constitute 40 percent of enrollments, and saw their numbers increase¹⁰⁰ at a 50 percent rate between 1996 and 2006 (versus a 20 percent increase for full-time students; Ramsden 2007). As the Bologna Process has matured and its social dimensions gained more visible and policy momentum, part-time status has expanded, though not always in a coherent manner. Modularization of courses and distance education have made part-time status easier, to be sure. But some of the increase has also been driven by changes in the finance of higher education. While the data are sketchy, it appears that part-time students became more than a visible proportion of student populations wherever tuition was introduced into previously free systems. Gerard Madill of Universities Scotland adds the more complicated issue of the proportion of part-time students being inversely driven by costs. Given government subsidies in Scotland, he noted, universities are motivated to keep the number of full-time students high. Part-time students are charged less, and their stipends—and government support for their departments—differ by subject.

The part-time student population quickly became part of the enrollment topography in Eastern Europe in the 1990s, including more than half of students in Poland, for example. Part-timers now constitute a substantial portion of the Slovenian student population, governed by a special set of rules, the most important of which is that part-timers pay tuition/fees and full-timers don't (an irony one also observes in Poland). Pavel Zgaga of the University of Ljubljana described three groups of Slovenian part-timers:

¹⁰⁰No doubt partially as a by-product of the introduction of the Foundation degree.

- Adult learners as continuing education students, not seeking a degree.
- Both traditional-age and older students who are working and either studying six or seven years for a degree or upgrading skills and knowledge.
- A traditional-age group who would like to study full-time but did not perform well on the secondary school exit examination, and are usually found in law, nursing, and police academy fields.

There is no question that these groups would not be enrolled if part-time status were unavailable. From an administrative perspective, Juliana Kristl, Pro-Rector at the University of Ljubljana notes that when it comes to enrollment management you know the number of students in each program because the Ministry defines the number, both full-time and part-time, with the former's tuition subsidized by the government. And for that reason (though we would object on the grounds of fairness) special facilities, e.g. lab space, are allocated first to students paid for by the government. Depending on program, the proportion of part-timers in Slovenia can exceed 50 percent.

Too, the definition of a part-time student differs from country to country. A pan-European definition is beyond theoretical reach because the ECTS system has an insufficient history to allow for a uniform calculation. The part-time student in Sweden is a one-course per term student, however many credits that involves, but the Swedish one-course student, responding to the *Eurostudent III* survey question, "Which description best fits your current status as a student?" will respond "full-time." How else would one explain the *Eurostudent III* datum that only 7 percent of Swedish students are part-time (p. 50) when Ministry data show over 20 percent are *kursstudenter* (Statistics Sweden 2006)? In Poland, part-time ("extramural") means more than 60 percent but less than 80 percent (Dąbrowa-Szeffler and Jabłocka-Pryślopka 2006, p. 25). In the UK, the empirical average for part-time students is in the range of 40 to 60 percent of the full-time load (Boorman, Brown, Payne, and Ramsden 2006).

There is a somewhat less empirical definition floating around Bologna circles, though: the European University Association's *Trends V* interprets the student enrolled full-time but working to be a "*de facto* part-time" student, and Martin Unger of the Institute of Higher Studies in Vienna, and a student of the social dimensions of Bologna, observes that if you set the definition of part-time against working hours, and asked what proportion of students worked at least 30 hours/week, then 65 percent are part-time; at 35 hours a week, 40 percent are part-time. But these are estimates. *Eurostudent III* (Orr, Schnitzer, and Frackmann 2008) took a different approach to part-time status by asking students how many hours in a week they spent on classroom activities, personal study time, and paid jobs, then defined *de facto* part-time any student who spent 20 or fewer hours per week on academic matters. By this criterion, for example, roughly 20 percent of Austrian students and over 30 percent of Finnish students are

part-time (p. 52), though 100 percent in both cases claimed formal full-time status (p. 50). Part-time brings in the social dimension in a more expansive way, as it includes students with children,¹⁰¹ students who care for aging parents (an increasing proportion), and the disabled (in Austria, as Unger elaborates, this category includes students with any chronic condition such as allergies, eating disorders, and depression). All these groups need a longer time to complete their studies. . .

. . .as do students in dedicated distance education units of universities, such as *Télé 3* of the University of Paris III, where all students, by definition, are part-time. As the director of *Télé 3*, Raphaël Costambeys-Kempczynski, informs us, *Télé 3* students must provide evidence of other time commitments, e.g. a payslip, to prove that part-time distance learning is “the only access they have to a university education.” Once they are admitted, he adds, “they can take as long as they need to complete” their degree programs, as long as they need to demonstrate knowledge and competence, whereas on-campus students at Paris III are learning against the clock. Bologna has unfolded in a boom era of distance learning which, while expanding access, also comes against a background of qualification frameworks that set the quality of study time and its results—more than the amount of study time—in bold relief. This intersection has not received as much attention in the Bologna follow-up work as it warrants.

Some European systems and universities evidence creative treatments of part-time students. For example, the University of Aberdeen’s (Scotland) regulations for Honors Degrees allow part-time students with the conditions that (a) their enrollment is continuous, and (b) their time-to-degree cannot “exceed twice the period of study permitted for completion of that Honours programme.”¹⁰² In other words, if you want to pursue a four-year first degree on a part-time basis, fine!; but you have a maximum of eight years to finish. You have a maximum allowed enrollment of 2/3rds load, i.e. 80 of 120 (Scottish) credits, in any one academic year, so you can pace yourself with different part-time intensities and still make it to the tape on part-time time. Such arrangements are not confined to Bachelor’s degrees. The Danish 2-year Academic Profession programs offer a similar option. For example, the degree program in Multimedia Designer offered jointly by the Odense Technical College and the Tietgen Business College allows the student four years to complete, with formal application for leaves of absence (stop-out periods) “on the grounds of childbearing or illness in the immediate family” (Erhvervsakademiet Fyn 2006, p. 7). This is a sensible and sensitive approach. In a U.S. context it fits with the empirical realities of student attendance behaviors, and can make for

¹⁰¹ *Eurostudent III* (2008) shows the proportion of students with children at 21.7 in Norway and 16.6 percent in Sweden, for example (p. 33), reinforcing factors associated with the age distribution of their student populations. Students with children comprise 25 percent of U.S. undergraduates (National Postsecondary Student Aid Study, 2004, at www.nces.ed.gov/dasol).

¹⁰² University of Aberdeen, *Calendar 2007/2008*. Aberdeen, Scotland: Author, p.10.

better learning and higher completion rates. We will come back to this in our recommendations.

The Swedish *kursstudenter* is another approach: a separate class of students who, on entrance, agree to take one course per semester, but can shift over to full-time status (*programstudenter*) at a later point in their academic careers. Since 1997–98, the proportion of *kursstudenter* has grown to 40 percent of *entrants* in Swedish higher education, principally due to the movement of slightly older (22 and up) women coming into the system through special preparation programs associated with community adult education. But the proportion of the one-course students in the total undergraduate population is 25 percent, indicating that a significant number either became *programstudenter* or left school (Statistics Sweden 2006).

If part-time status improves access and thus contributes to the “social dimension” objectives of Bologna, one naturally asks after the degree completion rates of part-time versus full-time students. The Swedes are rather meticulous about tracking such phenomena, and take their completion pulses for the first degree at seven years. Table 4 offers what they found in 2005 for students who started in 1997/98. Statistics Sweden would note that even if one extended the measurement period to 9 or 11 years, the proportion of *kursstudenter* students completing credentials does not rise much. In other words, while enhancing access, the strategy has little impact on graduation rates.

Table 4: Seven-Year Bachelor’s Degree Completion Rates in Swedish Institutions of Higher Education for Students Who Entered in 1997–98, by Enrollment Intensity

	<u>All</u>	<u>Program</u>	<u>Kursstudenter</u>
Completed all requirements and passed all examinations:	44%	54%	10%
Had not completed all requirements and examinations, but earned at least 120 credits:	20	24	9
80–119 credits:	8	9	6
40–79 credits:	7	5	12
20–39 credits:	6	3	17
1–19 credits:	9	3	29
0 credits:	5	1	18

Note: Columns may not add to 100.0% due to rounding. Source: Statistics Sweden 2006, pp. 9, 12, and 14.

In a contrasting case at a single large institution where part-time can mean more than one course per term, administrators at the University of Strathclyde in Scotland contend that completion rates for part-time students were higher than those for full-time students, and they are backed up by broader surveys of the Scottish Funding Council (2007). The completion

rates are higher, it was explained, because part-time students are more committed. This outcome holds in law and business but not education because school teachers are overwhelmed by the combination of job and study. The Scottish layered award structure (certificate, diploma, degree) in blocks, it was held, helps completion rates. And if the last step is a work-based project, you get a Master's degree. Most part-time students can build such a program into their day-to-day work commitments.

A more complex portrait of the part-time provision and student population has been offered in the UK (where part-time is a traditional status) in a wide inquiry into part-time education commissioned by Universities UK (Boorman, Brown, Payne, and Ramsden, 2006) The UK study is a model for other Bologna Process countries in that it picks facets of the part-time experience likely to receive greater attention as the degree-cycle flexibility aspects of the Bologna reconstruction unfold, and indirectly offers guidelines for a census of who should be counted. It is based on interviews with a sample of 26 higher education institutions (including the nearly 100 percent part-time Open University) in England, Wales, and Scotland. The analysis also incorporates a survey of 2600 part-time students conducted in another "strand" of the project (Callender, C., Wilkinson, D., and Mackinon, K. 2006).

Part-time education takes a number of forms in the UK (and sometimes it is called "low intensity") in addition to standard fractional enrollments in degree programs, in which half-time status is necessary for grants-in-aid. It includes students who are

1. Repeating individual course modules;
2. Enrolled in parallel/cognate curricula offered at alternative times and locations than the default delivery schedule and map;
3. Enrolled in programs for which there is no full-time variation, e.g. some professional programs and continuing education; and
4. In the three-year part-time schedule of the Foundation degree.

These are all alternative access routes, assist rural populations in particular, and obviously appeal to older beginning students. For institutions that offer part-time provisions, the altruistic motivation is to maintain the "second chance" option, with the less altruistic motivation being maximizing income and retention. In terms of field, the heaviest UK part-time enrollments are in nursing and other allied health fields, along with social work. When the focus is on first degree enrolments and post-graduate, business studies lead, and computer-related fields notch noticeable volumes. When former full-timers were asked why they became part-time students, they offered three principal reasons: they could not devote sufficient time to studying (62 percent), had badly estimated how much time was necessary (71 percent), and had problems with time management and study skills (65 percent). This is all honest common-sense, and indirectly argues that part-time is not merely an access path but a persistence path as well. Other Bologna countries—and the U.S.—take note!: the "social dimension" is not merely about expanding opportunities for walking-through-the-door; it is just as much about reinforcing paths to completion.

Even so, the UK study concludes, as a consequence of “different types of provision within part-time study . . . it is not possible to produce indicators that can be readily compared with those for full-time study in terms of progression and completion.” In fact, one must segment the part-time student population by qualification level, geodemography, method of delivery, and field in order to understand what is going on. When one focuses only on first degree and “other undergraduate,” the UK study shows that 51 percent of all part-time students are in non-vocational sub-degree certificate programs, i.e. at ISCED Level 4, or straddling Level 4 and 5B. In the United States, that population would most likely be found in community college remedial programs.

9.2 Recognition of Prior Learning: The Potential Movement of Adults into Degree Cycles

The formal Recognition of Prior Learning (also known as the Validation of Prior Learning, and Assessment of Prior Experiential Learning, henceforth abbreviated RPL) is more associated with the lifelong learning and workforce development objectives of the Lisbon Strategy than with the Bologna Process, but it came into Bologna in the communique of education ministers following their 2003 meeting in Berlin. So, as the European Students Union observed in *Bologna With Student Eyes 2007*, the topic is a latecomer in the Bologna portfolio. While some countries (e.g. Sweden and France) had prior well-developed systems for assessment and recognition, others were stumbling toward policies and procedures for connecting working adults possessing lesser levels of education to higher education. “This is a young issue,” agreed Eva Werner of the Fachhochschule Krems in Austria, adding that the basic question to those who want to enter higher education through RPL is “What’s in your rucksack?” But, as Gottfried Bacher of the Austrian Ministry of Science and Research noted, there are no hard rules yet on documenting [what’s in your rucksack], and Austria is more typical of Bologna countries in this matter.¹⁰³

There are a number of ways that U.S. higher education recognizes knowledge and skills acquired outside the walls of the academy. Credit-by-examination is the most obvious, with the College-Level Examination Program (CLEP) so entrenched that its use has become a verb among students, e.g. “I CLEPPED out of General Psych.” Departmental challenge examinations, particularly in languages other than English (and for heritage speakers) have become more common. The DANTES testing program of the U.S. armed forces is also used for credit purposes, as is a special set of over 70 course examinations (from technical writing to abnormal psychology to marketing research) developed by Thomas Edison State College in New Jersey and known as the TECEP program. All these acceleration mechanisms feed into the credit dossiers of students already enrolled in degree programs. But credit-by-examination is generally not what the Europeans mean by RPL.

¹⁰³The European Commission-sponsored 2007 *Stocktaking* report shows 17 of the 46 Bologna Process countries with national guidelines for assessment of prior learning as the grounds of access and either credit awards or course exemptions in higher education.

Closer to the challenge of RPL faced by European higher education systems are U.S. institutions that *specialize* in the recurrent adult market, offering combinations of formal course work (much of it now online) and portfolio-type assessment. The most prominent and long-standing of these among public institutions include Thomas Edison, Empire State in New York, and Charter Oak in Connecticut. We could spend many pages on what these institutions do and how they do it, but what we need to highlight are the noble objectives but currently uneasy fit between RPL and the Bologna reconstructions in Europe.

As Prof. Stephen Adam of the UK has asserted, a “formidable array of recognition tools, techniques and processes” has been developed since the Bologna Declaration (Adam 2007, p. 3). This changing environment has both challenged and opened doors for RPL. The more we have ECTS, national qualification frameworks, learning outcomes statements through the Tuning process in more and more disciplines, the better the seeming fit of RPL to the social dimension. But Adam sees the ECTS system as currently wanting in terms of its failure to include learning outcomes or (except in rare cases) the linkage of credits to levels of challenge, and if you don’t have learning outcomes attached to credits, it is more difficult for someone coming into the system with knowledge and skills that would be described in those outcomes to be awarded credit. Credits, Adam contends, are a flexible way to account for considerable variations in the ways people acquire knowledge and skills, and “allow bridges and links to be built between different forms, modes, and types of education” along with “multiple entry and exit points.” (p. 12) At the same time, there is a difficulty moving occupationally-oriented learning into the academic terms of higher education, and, as Adam points out, most of the European experience in this area is localized and isolated.

So the array of tools for the recognition of prior learning (whether that learning was acquired on the job, in education or training institutions, or through life experience) is underutilized by institutions of higher education, and where it is utilized, one doesn’t see that “convergence” of practice that Bologna seeks. In some countries, e.g. France and Ireland, one can earn a full credential through a portfolio or dossier assessment process. In others, one earns credits, but the number of credits allowed through various assessments of prior learning may be capped, e.g. in Italy, at 60 (out of 180–240 required for the first cycle *Laurea*). In still others, as Ruud Duvekot of the Hogeschool Amsterdam and a leading advocate of RPL would have us emphasize, one finds a mixture of currencies dominated by exemptions. At the Hogeschool Amsterdam, he points out, each program has a library of examinations (probably analogous to the TECEP examination portfolio) that are utilized, with the examination committee for each program recommending combinations of exemptions, “study points,” and credits.

In still other countries, there is an age threshold for RPL eligibility, e.g. 23 in Portugal, where, in 2007, 58,000 adults were facing external juries and individualized profile batteries of exams as part of the validation process (European Commission 2007c). In a very ambitious expansion of the processes of RPL and their incorporation into a national certification system known as

Reconhecimento, Validação e Certificação de Competências (RVCC), Portugal seems to be dropping the age threshold to 18 as it seeks to put a million working adults through an RPL process by 2010 (Ministério do Trabalho e da Solidariedade Social, 2006). National policy is concerned principally with occupationally-oriented certifications and plans to have 150 qualifications in 32 occupations in place by 2010. Personnel at “Centers for New Opportunity” conduct interviews to assess strengths and experience and help the future certification candidate construct an individual planning portfolio which is referenced to “competency keys,” and prescribes formal learning tasks and other tasks students can perform on their own in preparation for a juried review (Agência Nacional para a Qualificação, IP. 2007). However elaborate, the connection to tertiary education is ambiguous.

When the learning to be recognized has occurred outside educational institutions and structured training programs, it is called “informal” and/or “non-formal” learning. The European Commission sponsored a study of how learning so derived was validated in a sample of countries (Otero, Hawley, and Nevala [eds.] 2008), and some highlights from this inventory might be of more than passing interest to U.S. readers:

- **Sweden** demonstrate the range of approaches to validation that are in play across a number of national systems. It’s a labor intensive operation that starts with a “general competence mapping” in which the candidate undergoes both a self-assessment and 1-2 hour interview to determine his/her skills, on the basis of which an “in-depth competence mapping” is recommended (or not). In this second step, specialists in the field for which the individual seeks to be credited will analyze and discuss with the candidate the level of specific knowledge and skills, theory and practice at issue, and agree on a map and plan for validation. At the end of what looks like a full day’s work, a formal document for the validation is issued. The process then moves, over a number of days, to a competence assessment by an occupational assessor, and involves a variety of assessments that would correspond to the learning objectives of formally offered course work. Assuming successful performance, a certificate of attainment is issued. But this is not the end of the process, for the competence assessment must be verified by formal means, i.e. through examinations conducted by “a quality-assured assessor,” and a certificate issued “indicating the modules or elements that the individual passed during validation” (Otero, Hawley, and Nevala 2008, p.38).

The **German** system, more closely allied to elements of Europass than to validation for purposes of granting credit, is based in a self-reflective document called a ProfilPASS. Coming on-line in 2006, ProfilPASS involves interaction between a subject and a specialist to abstract the subject’s skills and competences in a way that (a) clearly distinguishes levels in a manner compatible with the Dublin Descriptors (though not presented that way), and (b) provides a very perceptive divide between the two categories, to wit:

Level 1: activities which can be carried out under another person's supervision or by following instructions;

Level 2: activities which can be carried out autonomously in familiar conditions;

Level 3: activities which can be carried out autonomously in a different context (other situation, conditions, location, work context);

Level 4: Activities which can be carried out autonomously in a different context, explained and demonstrated to others." (Otero, Hawley, and Nevala 2008, p. 42)

Levels 1 and 2 are skills; 3 and 4 are competences. The ratchet principle is clearly at work in this formulation. What the German framework adds to the diction of competence grounded in autonomous inquiries and applications in unfamiliar contexts is the abstraction and communication that reflects both knowledge and understanding, i.e. there is not something merely mechanical about Level 4—it is “academic” as well. The ProfilPASS system is elaborate, offering adults counselors and seminars (for a fee, of course) in how to determine and document their knowledge, competencies, and abilities, wherever these were acquired and/or developed. It's called “mind mapping” on the ProfilPASS Web site (www.profilpass-online.de), and, in some respects like the Europass, it requires the development of “biographical control skills” (Lillienthal and Seidel 2005). In terms of the social dimension of serving under-represented groups, ProfilPASS makes a special outreach in the form of group counseling for immigrants (*Migrantinnen*) and young men (particularly school drop-outs).

Ever vigilant on such matters, *Bologna With Student Eyes 2007* cites the complicating issue of fees in formal programs of recognition. Both assessment and the jury process are not free. The whole area is murky, the European Students Union observes, because some institutions charge fees “as they see fit,” Italy charges by credit, and France, Ireland, the Netherlands, and Switzerland according to type of institution, course of study, and student status (ESU 2007, p. 46). None of this is very transparent. If the Bologna ministers at their 2007 London meeting thought that some member countries were lagging in national qualification frameworks, even more have a long way to go in the matter of RPL.

Why exams? Why juries? Why portfolios? Asking students to learn again in a formal setting what they have already learned in non-formal settings, writes Adam, “is unfair to students, wastes resources and is symptomatic of inefficient education systems” (Adam 2007, p. 4). For part-time students in short-cycle or first cycle degrees, granting credit for demonstrable learning that took place outside the formal education sectors enhances momentum and keeps them in the system. It is doubtful, though, whether RPL can draw new blood to higher education in the form of mature workers (as observed, the Portuguese plan is more concerned with making its workforce more attractive to employers by officially validating and stamping their skills). But if anyone will find out soon, it will be the French.

The French VAE

Probably the most visible and developed of the European systems of RPL is that of the French *Validation des Acquis de l'Expérience* (VAE). While the VAE had some history prior to the Bologna Declaration and the Lisbon Strategy, the French saw three significant problems (and these problems are not unique to France) in assessing non-formal and informal learning as paths to degrees.¹⁰⁴ First, that the first credential earned (secondary school or postsecondary) with training in a specific occupation colors subsequent interpretation of an individual's competencies. Second, that the system of "continuing education" has not proven itself a "second chance" system, as it emphasizes short-term activities that don't amount to much and certainly not enough to provide momentum toward recognition in a credential. And third, that employers are not very competent at defining work-based competencies for recognition of work-based learning, nor are individuals very articulate about them.¹⁰⁵ This is a brutal assessment.

Perhaps in response, and extending the French Revolution, a 2002 post-Lisbon, post-Bologna law elevated the VAE to a "right."¹⁰⁶ It changed the traditional avenues to certification through training programs by creating the National Repertory of Professional Certifications (referenced in the presentation of the French national qualifications framework in Section 2.2 above) that cross-cuts the authority and territories of a number of ministries and includes diplomas issued by the Ministry of National Education, the Ministry of Employment, the Ministry of Youth and Sports, and the Ministry of Agriculture (remember that, in France, the government—and not individual institutions—awards credentials). Of course, one cannot just walk in and file a *dossier* for evaluation. The application requires that one has spent at least three years in acquiring occupational experience (under VAE's previous laws and regulations, the threshold was five years). After that, the process involves a consulting interview at a regional center, submission and acceptance of a dossier, the assembly of a jury (including those from the occupation at issue) appropriate to the dossier, presentation of the dossier to that jury, and decision by the jury for issuing a diploma or certificate. The most difficult step in this sequence is that of assembling a jury to match the dossier, and that's where the biggest drop in the pipeline occurs, e.g. in 2005, and under the authority of the Ministry of Education alone, from

¹⁰⁴Non-formal learning involves course work taken outside the universe of recognized education providers; whereas informal learning involves unstructured situations, including self-instruction, "learning circles," community volunteer work, etc.

¹⁰⁵Ministry of the Economy, Finance and Employment 2007. *The Validation of Experience Skills in France*. Paris, FR: Author.

¹⁰⁶ Article L.900-1 of the Work Code affirms that "Any person engaged in professional life has the right to validate the skills associated with their experience, namely professional experience, in the aim of acquiring a diploma, title with professional aim or certificate of qualification figuring on a list established by the national joint commission of employment of a professional branch, registered in the national repertory of professional certifications set in article L 335-6 of the Education Code." (Ministry of the Economy, Finance and Employment, *op cit.*, p. 3).

27,000 admitted dossiers to 20,500 presented dossiers (for all ministries, the drop was from 61,000 admitted to 30,000 presented; Ministry of the Economy, Finance and Employment 2007, p. 11).

Feutrie (2007) points out that, under the original design of the VAE, the jury must include representatives of cognizant companies (with both employers and employees) or professional bodies (at least a quarter of the jury must be so constituted), and must be equally balanced between men and women. An interview with the candidate is not mandatory. The jury can award either a full qualification or part—and if the latter, recommends what the candidate has to do and provide in order for the full qualification to be awarded, and gives the candidate 5 years to present the balance. With these requirements, it is no wonder that the drop-off in the pipeline is a by-product of the failure to assemble juries.

Has anything changed? The number of institutions of higher education operating VAE programs in France increased from 52 in 2002 to 84 in 2005. Nearly 80 percent of the applicants for RPL in 2005 were employed, of whom 48 percent were in managerial roles and 35 percent in intermediate-level positions, i.e. those who take advantage of the VAE opening are most likely those with enough previous education to reach such positions in the labor market. Two-thirds of the affected population were between 30 and 45 years old, and 22 percent over the age of 45, i.e. VAE is not a country of the young. Credentials were awarded to 43 percent of the applicants (MEN 2005e, p. 2).

Did the French find all this satisfactory? Not according to a 2005 national report on the present and future application of the VAE (MEN 2005c). The health sector of the economy was particularly supportive of expansion and deepening, estimating that barely 10 percent of the “medico-social” sector of the workforce had access to a formal diploma in the French system, and cited occupations such as pediatric assistants, infirmary anesthetists, hospital pharmacy personnel, and medical laboratory techs for whom opportunities for VAE could lead to degrees, certificates, or titles. “The reservoir of demand is considerable,” asserted Prof. Albert-Claude Benhamou of the VAE mission at Université René Descartes (Paris V) —100,000 per year—but, as the Ministry of Labor pointed out in mid-2005, over the previous 18 months, only 6,000 candidates had moved through the VAE process to an award, and advocated a goal of 75,000 for the three-year period beginning at that point (MEN 2005d).

It will be difficult to meet that target without employer push. A *Eurobarometer* survey in 2003 (Cedefop 2003) revealed an adult European population seeing value in lifelong learning, but “demotivated” in terms of formal participation, with reasons ranging from not liking school, not good at studying, judging that there is nothing out there to learn that would be interesting or useful, and being too old for the task. Obstacles lie principally in lack of time, including family and job commitments, and the prospect of having to give up leisure time. As for paying for further education and training over 40 percent said “no way!,” no matter what the learning objective.

What all this suggests is that using RPL to expand participation in higher education, i.e. as one of the paths of flexibility in Bologna's "social dimension" action line, is problematic, though the European Students Union insists that Bologna ministers put "creation of European guidelines and principles" for RPL high on their agenda for post-2010 action as it is "especially relevant for under-represented groups in higher education" (ESU 2009, p. 4). It also suggests some promise in integrating the procedure with the degree cycles, but almost exclusively for those who had previously participated in tertiary education and who can use their occupational base as the source of evidence of learning, e.g. as Ruud Duvekot illustrates, presenting the marketing plan you developed for your employer as part of a business dossier for a first cycle degree. It is no surprise that universities are more resistant to the process than the "applied science" institutions, that questions about the variable quality of credits have been raised, and, where reviews of a dossier are used for granting credits, that there are questions about how one determines equivalencies of the student workload metric of ECTS.

9.3 Stepping Back: the Social Dimension

The discussion of the social dimension factor is heavily influenced by demographic data collection and analysis because increasing participation in higher education requires information derived from social security systems, immigration information, and national census-taking. There is a lot of variability across the 46 Bologna countries on these counts. As the Bologna Working Group on Social Dimension and Mobility (2007) concisely put it: "not all Bologna countries are covered, there is no common deadline for surveys, requirements for indicators need to be matched with data availability and comparability, statistics from different sectors need to be brought together to get a fair picture of the social dimension and most of the currently available data is not appropriate for analysis of change" (p. 9). Eurostat and Eurostudent have been charged with coming up with a template for more reliable, comprehensive, and comparable data to illuminate under-representation problems and progress toward overcoming them, and their first product is, as of this writing, in draft.¹⁰⁷

Why the drive to ensure that "the student body entering, participating in, and completing higher education should reflect the diversity of [the] populations" of the 46 Bologna countries? (p. 11) The rationale goes beyond simple equity. It achieves "social cohesion" and raises the level of overall competence and knowledge in the society (p.12)—two concepts that one doesn't hear often in U.S. policy discussions of this issue. It also is intended to increase the attractiveness of the European Higher Education Area by signaling to students from other continents that European universities welcome "different perspectives," different cultures, to come together and develop a new and more vibrant "academic culture." And when social dimension processes also include "appropriate studying and living conditions" and "guidance and counselling

¹⁰⁷Eurostat and Eurostudent 2009 [forthcoming]. *Social Dimension and Mobility in the Bologna Process*.

services” (p. 13), no doubt the European Higher Education Area is assuring foreign students that they will be supported and treated well.

Easily said, and even elaborated in very generalized policy objectives, e.g. outreach, flexibility of scheduling, guidance, housing conditions, etc. Who is under-represented/over-represented? Nothing surprising in gaps by parents’ level of education, income, and occupational status (manual versus professional). In terms of region of countries, the numerator is unfortunately based on enrollments in institutions located *in that region*. This artificially inflates the ratio in some areas and deflates it in others, hence does not allow for accurate analyses by socioeconomic background within region. And when it comes to assessing the extent to which the flexibility paths both pre-dating Bologna and established under Bologna have had any effect on access, each country defines its non-traditional paths into tertiary education differently. But there is no question that, no matter how a country defines its low-participating populations, the key to finding them is detailed geocoding. As the Higher Education Funding Council for England (2005) advised: “The full extent of participation inequalities is revealed by using neighborhood level geographies such as census wards. These show that there are broad and deep divisions in the changes of going into HE according to where you live. . . .Maps of local participation patterns—such as those presented through POLAR [a geo-software program, now in its second edition, POLAR2] . . .reveal that many cities and towns are educationally divided. . . .” (pp. 10-11). What can be said for cities and towns can also be said for counties and regions in more sparsely populated countries and areas¹⁰⁸.

This is a question of knowing where to drive when you go out in your car to fix a problem. We don’t engage in geodemographic analysis like this in the U.S. and the topic will be revisited when suggestions to American higher education are offered in Section 13 below. The Scottish Funding Council (2007) provides some data for the grist of evaluating the mark of one country’s programs to widen participation in post-compulsory education. What have they seen since 2001/02?

- falling rates of participation, particularly at the sub-degree level, and among young men; the former trend is accounted for by a drop in part-time students;
- higher participation rates of women in both Further Education and Higher Education sectors;
- classic differences in entry qualifications by geographic areas with different SES profiles;
- a noted, but small, increase in participation rates of adult students from low-SES areas;

¹⁰⁸ For every census ward, POLAR2 provides participation rates for the 20 and under population, social class codes, proportion of students entering higher education through different paths and type of institution entered, entry qualifications, distance to an institution of higher education in minutes, and the proportion of students living with their parents, among other indicators. Census wards are very small geodivisions in terms of population. County Durham in the north east of England, for example, has 165 of them.

- non-white ethnic groups are well represented;
- number articulating from sub-baccalaureate certificate program (HNCs and HNDs in Scotland) to first degree programs is underestimated, i.e. they don't keep good track of this phenomenon.

For relative guidance on access, a Scottish Index of Multiple Deprivation (SIMD) has been developed, based first on geocoding of levels of education and housing stock, and then on a variety of other variables, e.g. tax brackets, to create 6000 "data zones." SIMD "scores" are then cut by quintiles for analytical purposes.

When the Scots analyzed these phenomena by region, they concluded that students from the highest SIMD group are actually underrepresented, whereas those from the lowest two quintiles of SIMD are "slightly overrepresented." (p. 21) The next step in this analysis, and much better than we in the U.S. normally execute, is a bi-modal distribution by age, with the dividing line at 21. Not surprisingly, among students 21 and younger, a higher percentage are in the top two SIMD quintiles (61.4 percent in 2004/05) than is the case for students over the age of 21 (52.1 percent), with a reverse relationship among students from the lowest two SIMD quintiles (20.6 versus 28.5 for the over-21s).

Still another element of the social dimension analysis that is far more common in Europe than the U.S. is the participation rate of students with disabilities. The Scottish analysis shows a higher proportion of these students in the smaller, specialized colleges¹⁰⁹ than in universities, but a rising proportion reporting disabilities across the board. The data in this area are shaky, as elsewhere (see *Eurostudent III*, p. 35), but there is unobtrusive evidence from students requiring extra learning support and in special programs across all types of Scottish institutions of higher education. Not only Scotland. The Open University of the Netherlands highlights variable services and delivery modes to students with disabilities on its Web site (www.ou.nl), including those with chronic conditions such as asthma, ADHD, and dyslexia that can affect progress toward degrees, and there is no doubt that, of the 29,000 students served by OUN, a measurable number of those with disabilities come in online.

9.5 e-Learning and the Social Dimension

This last observation on flexible access routes for special populations raises a topic that is not often mentioned in the Bologna literature, the role of distance education and open universities on the landscape of the social dimension. The online programs that *Téle 3* at the University of Paris III offers to employed adults or parents who could not attend a university any other way (see p. 80 above) are repeated on a much larger scale by the dedicated open universities, just as they are by the major for-profit providers in the U.S., e.g. the University of Phoenix. While

¹⁰⁹Single-purpose institutions in art, music and drama, textiles, and teacher education.

there appear to be only four of these (using multiple delivery modes from brick-and-mortar to virtual) in the Bologna countries, all of which existed before Bologna (the Open University UK, the Hellenic Open University in Greece, the Open University Netherlands, and the *Universidad Nacional de Educación a Distancia* in Spain), one can find a variety of dedicated virtual-delivery institutions playing access roles in other countries, and with enrollment volumes proportional to their national environments. For example, the *Universitäre Fernstudien* in Switzerland started operations in 1992, and came to serve about 1600 students in 2008, awarding 200 credentials in three national jurisdictions—Swiss Bachelor’s and Master’s, French *Licence* and *Master*, and German legacy *Diplom* and *Magister* included (*Universitäre Fernstudien* 2008). We have no background information on the students served, so it is difficult to determine whether they were “second chance” adults typical of enrollees at the UK’s Open University and its three cousins, hence whether they fit into a flexible access path strategy.

The French CNED (*Centre national d’enseignement à distance*), a joint undertaking of the education ministry and the ministry for higher education and research, is an adjunct to all levels of education, from primary through continuing education and training, and delivers preparatory programs to those preparing for teacher certification exams and civil service exams as well. Total enrollments in 2008 were 270,000, of which 12,000 were in the *licence-master-doctprat* Bologna degree cycles and another 16,000 in the borderland short-cycle B.T.S. diploma programs (Lacroix 2008). CNED’s history dates to 1939, has evolved through correspondence course to televised instruction to Web-based delivery, and its geographical coverage extends to what the French call *Outre-mer*, i.e. still active colonies in the Caribbean and South Pacific. While an “open” institution, one would not call it an “open university.” But as two-thirds of CNED’s enrollments are adults and half its course portfolio is postsecondary, one would assume an adult non-traditional population for its LMD and B.T.S. offerings, hence a role in the flexible path option of the social dimension.

A different illustrative case is the *Virtuelle Hochschule Bayern*, a cooperative venture of both state and private institutions in Bavaria, that opened in 2000 with the mission of delivering distance courses to its member institutions of higher education and in a country in which distance education has not played a significant role. In 2005/06, VHB delivered 183 different course modules, including lecture series, to 15,000 students (*Virtuelle Hochschule Bayern* 2007). “Studying from an easy-chair” (*Studieren im Sessel*), however, is not connected to expanding access unless one thinks of it as a capacity-expansion issue (Taffertshofer 2008). That is, if one moves enough student full-time equivalence units from brick-and-mortar to virtual environments, the argument goes, one can increase the ceiling of *numerus clausus* in affected programs. The U.S. higher education system, which came much earlier to online education, knows this argument well.

Is there any evidence that expansion of online learning, whether through open universities, dedicated virtual-delivery institutions, or programmatic units of established institutions,

increases access and participation, particularly for groups targeted under the Bologna social dimension?

The Helios Network, an R&D operation funded by the European Commission to follow and assess progress under Lisbon Strategy topics, thinks not. In a thematic foray focused on access (Helios Network 2005), its survey data¹¹⁰ and analysis concludes that benefits to previously excluded groups have not been realized, that content and quality of instruction is more important than the technology, and that group ICT learning is more effective than the instruction of isolated individuals. (p. 3) While higher education is included in the sectors addressed by e-learning, the emphasis of this document is on other sectors— vocational, corporate training, and informal learning in home and community contexts. In that context, the results of a Cedefop-sponsored Eurobarometer provides some sobering background, and the results, no doubt, did not bring joy to the Lisbon architects. While virtually everyone thinks lifelong learning is important, 45 percent think it's principally for people who didn't do well in school. As for what aspects of learning are needed in personal and working life, the highest percentages of endorsement go to basic skills (writing, reading, arithmetic, "general knowledge"), with the lowest endorsements for computer and internet use (though significantly higher proportions judged these skills more important in working life than in personal life). The report authors speculate that this disparity results from being "untouched in concrete terms by the knowledge economy" (Cedefop 2003, p. 9). The same results hold when respondents were asked whether they themselves possessed these skills: proficiency in computer and Internet skills ran at 50 percent, with considerable variation by country: the highest proportion of respondents who said they could not use a computer were in Greece and Portugal (over 60 percent in both cases), and the lowest were in Iceland and Sweden (under 20 percent in both cases).

But given an intensifying convergence of Lisbon Strategy and Bologna dynamics on the field of lifelong learning, the Helios report is rather relevant, critical as it is of "the lack of real integration of the e-Learning discourse into the lifelong learning agenda" (p. 15), positing that e-Learning has been excluded from the "endogenous" modes of education and training, Helios explicitly extends that criticism to the Bologna Process, and sees both Lisbon and Bologna in their early phases as being more concerned with "European competitiveness rather than equity and inclusiveness." (p. 15)

A continuing noted problem is that traditionally under-represented groups in postsecondary education do not see the relevance of ICT, and hence "will not benefit from the opportunities offered through e-Learning." (p. 30) One can construct e-Learning in ever more learner-

¹¹⁰The principal survey was, of course, an online questionnaire with audiences already active in education and training (principally Cedefop and the European Distance Education Network). Helios acknowledges the inevitable bias of the results, but shrugs it off. The N was approximately 1900.

centered ways, including virtual classrooms, chat, on-line tutoring, etc. and it still may not help those who say they have neither interest nor time to learn in any delivery medium—to which one might add, for families of limited means, the costs of Internet connection, and broadband access. This is a matter of what a 2005 European Commission staff working document (European Commission 2005) labeled “e-Inclusion.” In estimating the role of online learning on higher education access, one has to start with basic Internet penetration data, which the Commission staff showed in 2003 to range from 21 percent in Portugal to 77 percent in Sweden (p. 7), and the most recent global data on the topic indicate at 48.5 percent for all of Europe versus 73.1 percent for North America.¹¹¹ After one gets by the basic penetration issue, questions about fluency, location, and type of use of the Internet arise. Social networking, for example, should not be dismissed as secondary to the potential of the Internet in providing participation gateways to higher education, and, in fact, the European Commission staff advocated building more social networks at the local level, particularly in isolated communities. Social networking is one of a core set of activities that yields fluency in Internet use, hence opens individuals to the possibilities of online learning.

Of course Helios is confident that increasing the supply, along with creative student-centered structural and process technologies and content, along with group learning and community-based access, will turn the situation in more productive and expanded education and training paths. Citing a UNESCO survey, Helios notes the majority of students who did engage in some form of on-line education endorse collaborative learning in the virtual classroom, noting that it improved “the convenience of course access. . . , access to their professors. . . , and the quality of learning. . .” (p. 41) That’s a more convincing posture, but it still leaves some questions open, e.g. whether “human support is a key factor in effective learning access?” (p. 45). While Helios staff acknowledge that they can’t prove the case, they note that the pedagogic theories of e-Learning include a prominent role for human support, e.g. in the role of the “e-moderator,” and in peer-to-peer support that can be encouraged in the site/course design. All of this underscores the necessity of careful design and staffing for the use of ICT in the service of the social dimension objectives of Bologna.

Our consideration of the “social dimension” has been confined to access and participation routes. But, as presented in the Bologna literature, the “social dimension” also includes topics such as state subsidies and parental contributions (some of which, in turn, are subsidized in a manner analogous to tax credits in the U.S.), and previously mentioned issues of housing and counseling services. The exploration of this territory would take us beyond the story lines of academic reform that dominate this monograph, and that are particularly well covered by *Eurostudent III* (Orr, Schnitzer, and Frackmann 2008) and its survey of over 90,000 students in

¹¹¹See www.internetworldstats.com

23 countries.¹¹² It is appropriate to let *Eurostudent* elaborate, and to suggest that teams of scholars on both sides of the Atlantic to find common themes and common ground between *Eurostudents* and the *National Survey of Student Engagement* (NSSE) in the U.S.

10. The “External Dimension”: Europe Turns to the Outside World—and Within Itself

From the outset of the Bologna Process, the reform looked across borders, and in five ways:

- making the European Higher Education Area a competitive presence on the world stage, i.e. to rival the U.S. in knowledge distribution and standards;
- making the European Higher Education Area a more attractive destination for non-European students;
- increasing the flow of European students across borders for part or all of the various cycles of higher education in which they might engage (inter-country mobility);
- increasing the odds of cross-border labor market flow as a by-product of common qualification frameworks and recognition of degrees; and
- increasing cooperation of European institutions of higher education across borders in curriculum development, joint degrees, and quality assurance.

The framers of the Bologna Declaration were not explicit (and may not even have realized) all these “external” dimensions, but in time they all emerged, though with different degrees of intensity. The Lisbon Strategy added building the research capacity of universities to the agenda to play catch-up with the university-based research enterprise in the U.S., and there are obvious connections between Bologna third cycle (doctoral) programs and this goal, but (a) the Lisbon interest is part of a larger internal Euro R&D effort, and (b) Bologna concerns with doctoral degrees came late in the development process and are on a back-burner. We set the Lisbon-related issue aside here.

So the external dimension is about a lot more than attracting students from other world regions to the EHEA and thus competing with the U.S., Canada, and Australia. For Zgaga (2006b) it is also about

- the internal competitiveness necessary for European institutions to become attractive;

¹¹² Responding samples ranging from less than 1,000 (Scotland, Latvia) to nearly 17,000 (Germany). Methods of administration ranged from face-to-face interviews to online questionnaire. Reference periods varied slightly with a 2005-2007 band. Seven (7) countries did not weight data; weighting schemes for the other 16 differed considerably. See Orr, Schnitzer, and Frackmann 2008, pp. 180-181.

- the cohesiveness and clarity of qualifications frameworks and standards for EHEA degrees not merely to make them understandable outside Europe, but to set a benchmark for others. As Haug and Tauch (2001) hammered the point home: “European degrees will not be generally accepted in the world if they are not generally accepted in Europe”(p. 7);
- the cooperative development of curricula and joint degree programs;
- sharing the experience of working out the core action lines of Bologna with other national systems facing similar challenges;
- engaging in international dialogue: about “internationalization” of higher education attendant on exchanges of students, staff, and programs; and about the response of curricula to globalization.

And, as he reflects, “The very beginning of the Bologna Process was characterised by the belief that changes in the structure of European higher education systems could be the main vehicle for raising attractiveness worldwide. Of course, this sentence could and should be read also in a reverse way: efforts to increase worldwide attractiveness are an important lever to improve European higher education systems ‘internally’, as well as to establish European higher education as such” (Zgaga 2006b, p. 10).

Again, there is a pre-history to the External Dimension. For Zgaga (and probably others), the fields of the external dimension were turned and fertilized before Bologna—in the 1988 *Magna Charta Universitatum*, the 1992 Maastricht Treaty, and the 1997 Lisbon Recognition Convention¹¹³. All three are cases of generalized statements, abstract acknowledgments, and platitudes. But they at least provided reference points in formal agreements. The ERASMUS student and faculty exchange/mobility program came along in 1987, and the Tempus program, with similar objectives, was extended to Eastern Europe almost right after the fall of the Berlin Wall in 1989. Particularly under Tempus there was no doubt that Europe was moving beyond the bounds of clauses in treaties with respect to international cooperation, exchange, mobility, and cultural understanding. Zgaga cites (presumably with approval) others’ judgments that “most Tempus partner countries are incorporating the Bologna principles as part of their overall efforts to modernise their higher education systems, and align themselves with current international developments. . .” (p. 23) Their disposition to do so ante-dates Bologna.

Of the many facets of the “external dimension,” the author picks two to highlight for U.S. readers:

¹¹³For example, the *Magna Charta Universitatum* set forth four roles of universities in a “changing and increasing international society,” one of which encompassed “frequent joint projects. . .mobility among teachers and students. . .and a general policy of equivalent status.” See www.magna.charta.org/pdf/mc_pdf/mc_english.pdf

- 1) The way the Bologna Process itself has become a teacher for the rest of the world's higher education systems; and
- 2) The condition of intra-European student mobility under Bologna degree-cycle convergence, as a consequence of which the Master's degree appears to be the new growth platform, and joint degrees at that level, however low volume at this time, add to the growth potential.

10.1 Bologna as Global Teacher

The author takes the position that if Bologna participants are talking about cooperative undertakings, sharing, etc. and debating whether Bologna should spread to the rest of the world, they are no longer in a “competitiveness” stance. And when they are talking about encouraging regional cooperation in producing some of the Bologna outcomes—transparency of degrees, quality assurance—in Middle Eastern countries, Central Asian former CIS states, Latin America, and Southeast Asia—at best they are *indirect* “competitors” with the U.S. model. The fact that the Utah state higher education system has already designed its version of a Diploma Supplement (after studying Bologna models) and is bringing it on in 2010, that three state systems in the U.S. (Utah, Minnesota, and Indiana) have established Tuning study groups with guidance from what this essay calls “Tuning Central,” and that (obviously) there is a full-blown Tuning project (ALFA) across 18 countries in Latin America, indicates that Europe has become a teacher in the Western Hemisphere, and others are starting to register for the course. One might say, in fact, that when representatives from all Tuning projects in both Europe and Latin America met in Brussels in 2006 to share developments, problems, and prospects they demonstrated what is really meant by the “external dimension.” If one is to judge from the all the ministerial communiqués through 2007, the Bologna leadership has yet to see it.

Other world areas illustrate what happens in the informal regional Bologna “classrooms” that slowly builds convergence momentum. Of interactions with other world areas, that with the **Mediterranean** can be more accurately described as a regional overlap. Ten Mediterranean countries had become Bologna participants by 2006 (Spain, France, Italy, Greece, Slovenia, Croatia, Turkey, Cyprus, Malta, and Serbia), and eight others (Algeria, Tunisia, Morocco, Egypt, Israel, Lebanon, Syria, Jordan) had participated in a variety of educational linkage programs with European states. Through ministerial meetings and the traditional declaration, in this case, the Catania Declaration of 2006, they seek to create a “Euro-Mediterranean Higher Education Area” to “promote the comparability and readability of higher education systems” (Zgaga 2006b, p. 40), the use of transferrable credits, and the development of comparable Quality Assurance processes. It's not Bologna (though Morocco and Tunisia had started on the process of conversion to Bologna degree cycles), rather a ministerial-level extension of selected pieces of the portfolio, and, until now, it hasn't penetrated universities in the non-Bologna countries.

The most important linkages to Bologna for **Africa** are through language, and the colonial relations that lie behind language connections. Foremost among these are the francophone (and, to a lesser degree, lusophone) countries. The North Africans (technically, the countries of the Maghreb) reset their systems to the French LMD model starting in 2003; the francophone West African countries held a seminar in Dakar in 2005 to consider the same move, but added “*autres sujets épineux*” (other thorny topics), including joint degrees, quality assurance, and the status of master’s, research, and doctoral degrees. The point is that the francophone Africans are picking up their cues from Bologna, selecting the issues that are most relevant to their stage of development, and talking.

The lusophones (the Africans include Angola, Mozambique, and Guinea-Bissau) set their own higher education area, the ELES (*Espaço Lusófono de Ensino Superior*), and an agenda that focuses on quality assurance, recognition of qualifications, and student exchange/mobility. In addition, as Zgaga notes, ELES is establishing a network of information centers, like the ENICS, in Europe, “capable of providing relevant, reliable, and timely information so as to promote elements of convergence with the European Bologna Process.” (Zgaga 2006b, p. 53). One step beyond talking.

In virtually all world regions (except North America), networks and sub-networks of ministers and rectors have formed, and established formal links with counterparts and organizations in Europe. Often, these relationships are part of larger bi-regional relationships such as EULAC (the European Union and 33 countries of **Latin America and the Caribbean**), under which cooperation in higher education comes under an emerging umbrella called the EULAC Higher Education Area. While participants ultimately want to deal with recognition and credit systems, the first stop on the agenda was Quality Assurance and accreditation. One sub-network here is the *Consejo Universitario Iberoamericano* (CUIB) and its own Iberoamerican Area of Higher Education and Research. CUIB and the European University Association issued their own manifesto for external relations, the *Asturias Declaration* in 2006, and what is particularly noteworthy on the list of priority agenda items is “information-sharing on convergence processes in Europe, in particular the Bologna reforms, and similar processes underway in Latin American and Caribbean higher education systems.” (EUA and CUIB 2006, p. 2) In other words, turn the classroom into a round-table workshop.

Australia is a separate case, in part because its ministry directly addressed the challenges of Bologna in its 2006 *The Bologna Process and Australia: Next Steps*, and the minister herself supported “alignment with Bologna initiatives.” (DEST 2002, p. 2). Given the volume of student mobility between Europe and Australia, credit transfer, recognition, and Diploma Supplement issues, in particular, had to be addressed. In terms of student mobility, Australia is in the position of balancing gravitational pulls from Europe, the U.S. and the major Asia-Pacific higher education systems, and, like other systems outside of the Bologna universe, maintaining the integrity of its own enterprise and traditions.

The Australian Vice-Chancellors' Committee's response to the minister's advocacy (AVCC 2006), while extolling institutional autonomy, recognized the necessity of degree portability, and took a strong defense of the Australian national Qualifications Framework (even though it does not read like its pan-European counterpart). The Vice Chancellors urged "a survey of European country compliance with Bologna" (p. 3), one supposes to make sure that Bologna was a real threat, and likewise advocated querying the UK and Asian Pacific ministries to see if they leaned toward Bologna or the US/Canadian model (one assumes, of degree structures). The Australian National Union of Students also stepped into the debate, following closely the involvement of the ESU to be sure that the primary stakeholders were not left out.

Where Australia stands out is in the process by which it studied and then determined its own version of the Diploma Supplement. It's the process more than the final template for this document that is important, and with it, the lesson that nothing happens overnight. Following its ratification of the Lisbon Recognition Convention in 2002, the Australians began to study Diploma Supplements as a "valuable tool for achieving transparency, recognition and mobility of [Australian] qualifications," examining, in particular, the costs and implications of issuing Diploma Supplements on a national scale. It took four years of reflection over the pilot inquiry for what is now known as the Department of Education, Employment and Workforce Relations to launch a project, with 14 universities, to develop a template for what became the "Higher Education Graduation Statement." Two years later, the consortium's report and proposal, with examples of the recommended template, was submitted to the government (James and Meek 2008). This is not the place to analyze and comment on what the Australians produced and recommended, but it is the place to offer another case of global convergence of forms of documentation that were stimulated by Bologna, and that illustrate a different notion of the "external dimension" than normally found in Bologna literature.

10.2 Internal European Mobility: a Move to the Master's Level

The promotion of student and faculty cross-border exchange ("mobility") has been one of the most consistent elements of the Bologna Process action lines. It emerged, in part, from dissatisfaction with the existing volume of grant-supported student exchange both under the formal ERASMUS (European Community Action Scheme for the Mobility of University Students)¹¹⁴ and among what the argot terms "free movers," i.e. those who study in second countries without a formal procedural umbrella or support (and who accounted for a plurality of mobile students in 12 out of 19 countries surveyed in *Eurostudent III*¹¹⁵). The amount of grant

¹¹⁴Under the restructuring of all European Union cooperative education undertakings under the Socrates umbrella in 2000, ERASMUS became the largest sub-program.

¹¹⁵See Orr, Schnitzer, and Frackmann 2008, p. 150.

support has been a continuing issue, accounting for at least the rhetorical inclusion of mobility under the social dimension—as well as external dimension—concerns of Bologna because only those of some means do not experience economic stress in participation. An early overview of ERASMUS (Teichler 1993) showed nearly 800 institutions and 18,000 participating students in 1989/90 (p. 9), with business and language studies accounting for nearly half of ERASMUS grantees (p. 13).¹¹⁶ The average age of grantees ranged from 20.9 in Ireland to 25 in Denmark, and the duration of their study period averaged 6.2 months (p. 14). More critically for the challenge of mobility under Bologna, the average number of years of study before the student crossed borders was 2.8, and ranged from 1.8 years for UK students to 3.7 years for those from Greece (p. 14).

By the year of the Bologna Declaration, 1999, the number of ERASMUS students had increased 400 percent to 108,000, and grew again to 159,000 by the year of Bologna's ministerial meeting in London (2007).¹¹⁷ However impressive the growth in ERASMUS, the student participation rate currently represents only 4 percent of enrolled students in the Bologna countries, and, for a major Bologna policy interest, is not likely to grow much, if at all. The early statistic that guides this prediction is the average number of years the pre-Bologna student spent in the home country before studying abroad, 2.8. With conversion of most first cycle degrees to three years, there is no time for a foreign venture—unless it takes place in a formal change of venue in the second cycle (e.g. a Bachelor's in Poland as your home country and a Master's in France) or is built into the student's program in the form of a joint degree. Unless there are “compulsory international semesters” in a Bachelor's program, *Eurostudent III* adds, “the majority of students would be expected to go abroad only after completing their Bachelor's course (Orr, Schnitzer, and Frackmann 2008, p. 138). The static majority remains dominant.

Students have been persistent in their critiques of mobility processes and conditions, raising issues of the adequacy and portability of grants, the costs of housing and living expenses in the guest country, the sometimes indifference with which they are treated, and unavailability of courses they expected to take. In addition, as is underscored in both the ESU biennial *Bologna With Student Eyes* and in *Eurostudents II* and *III*, those of lesser economic means and/or of parents with lower educational backgrounds are less likely to participate, though *Eurostudent III* adds that “the decision to leave behind familiar conditions and settings . . . also depends on the personal disposition of a student,” i.e. personality factors (Orr, Schnitzer, and Frackmann 2008, p. 131), and points out that this relationship of behavior to background is mediated by field of

¹¹⁶*Eurostudent III* does not consider language studies to be in the category of “credit mobility.” Instead, they are considered as “non-enrollment periods abroad” (Orr, Schnitzer, and Frackmann 2008, pp. 130-131).

¹¹⁷ For historical ERASMUS volume data, total and by country, go to <http://ec.europa.eu/education/programmes/1lp/erasmus/statisti/table1.pdf>

study. Student feedback and testimony on mobility experiences is voluminous, and it is not our intention to review it here. But if mobility is to contribute to student momentum within qualification frameworks, then we should pay attention to what mobile students say they learn and where. As an example, Marketa Tokova, a student at the University of Economics in Prague and vice president of the ERASMUS Student Network, offered a few reflections on her mobility experience at a Tuning Dissemination Conference in Brussels in 2008 that basically distinguished between the kind of competences gained in the home university environment and those gained in an exchange situation (Tokova 2008). In addition to delivering theoretical knowledge, the home university setting rendered her competent as a quick reader, close listener, and quick writer. The mobility placement, on the other hand, delivered communication skills, cultural skills and knowledge, teamwork, and general exploration of “new challenges” and general self-development, i.e. the “soft skills” that are often on the periphery of qualification frameworks and Tuning outcome reference points.

Recognition factors obviously play a significant role in mobility, and at both course module and degree level. In their original form, as the reader may recall, ECTS were designed as units of trade for what we, in the U.S., would call “temporary transfer” (ECTS became an accumulation currency only after 2003 under Bologna). Yet without temporary transfer agreements signed in advance of the mobility period by all parties (two institutions of higher education and the student), there is no guarantee that credits from the second school will be accepted by the first, either because a course is deemed to be not comparable with that offered at the home institution or because the grading system is so different as to defy judgment of performance. Indeed, in 2007, the European University Association’s *Trends V* report notes a substantial residual difficulty in recognition of credits from institutions located in other countries: 47 percent of the institutional respondents to the *Trends* biennial survey said that some of their students ran into this problem. One might ask why institutions are not more aggressive in the accuracy of temporary transfer agreements when their mobile students report, as *Trends V* notes, “finding on arrival that courses are no longer available or that they do not correspond to the initial description.” (Crosier, Purser, and Smidt 2007, p.41). That is an obvious rhetorical question, and the issue needs to be addressed more vigorously. Grading systems are another point of difficulty in mobility transfer mechanics: for example, if the national grading system under ECTS accumulation looks like a Bell curve while another national system does not pre-ordain a distribution of judgment, then it will be difficult to execute temporary transfer agreements.

Yet another difficult feature of mobility mechanics, say Kehm and Teichler (2006), lies in sectoral boundaries. This issue is analogous to that of differences in the quality of facilities and demands of curricula in engineering programs in the U.S. between flagship leaders and regional institutions. No matter how good the program and instruction in electrical engineering at Cal Poly at Pomona, it cannot offer what the University of Illinois/Urbana-Champaign offers. In our context, that doesn’t mean the Cal Poly student cannot spend a year at Illinois and have the chance to work at the cutting edge, but we are unlikely to observe the reverse flow. That’s what

Kehm and Teichler have in mind. In a European context, the competences expected of a graduate of a technical university are not carbon copies of those expected at an institution of lesser capacity, therefore, they argue, mobility is confined to institutions of the same class. If one is overly concerned with mobility within a given degree cycle, that's an issue. But where mobility opens up between the first and second cycles, one would expect to see sectoral boundaries breached, though with differences by field. As in many similar cases across Bologna analyses, the data available for evidence of these contentions and speculations are (to put it politely) limited. If readers go back to Table 3 (page 128 above), they will notice modest within-system vertical movements from Bachelor's to Master's programs in Germany, and it is reasonable to expect similar activity, with cross-national movement, as Bologna matures, National Qualification Frameworks are adopted, and recognition mechanics improve.

ERASMUS Mundus as a Mobility Model

Cross-national activity is also constitutive to the ERASMUS Mundus program, which the European Commission brought into being in 2004 to support institutions of higher education in their establishment of joint programs at the postgraduate level, and to extend the benefits to this type of cooperation to universities outside of Europe. While there is a considerable history of cooperative trans-national degree programs at all levels in Europe prior to Bologna,¹¹⁸ Maiworm (2006) pointed out a taxonomy of degree-locus in these programs, including single national degrees, double/multiple degrees, joint degrees of universities in which students have studied, and joint degrees issued by all universities in a consortium (Maiworm 2006, p. 16).¹¹⁹ Three-quarters of the 300 programs surveyed by the German Academic Exchange Service (DAAD) and reported by Maiworm were established subsequent to the Bologna Declaration, and two-thirds were at the Master's level. The proportion of double degrees reported by Maiworm declined from the pre-ERASMUS Mundus state of affairs revealed in a survey described by Tauch and Rauhvargers (2002), indicating a strengthening of cooperative program development, one of the key tones of Bologna curriculum reform.

Since ERASMUS Mundus has been sponsoring an increasing number of these programs, and in which the joint degree is the preferred credential, one should note that this form and sponsorship resonates more with core Bologna features than other cooperative trans-national ventures. For example, 83 percent of the ERASMUS Mundus programs use the same credit system in all participating universities, versus 48 percent for other programs; 43 percent of the ERASMUS Mundus programs (versus 27 percent of others) are accredited in all participating universities; and in 72 percent of the ERASMUS Mundus programs (versus 40 percent of

¹¹⁸See Finocchietti and Damiani (2002) for an account of joint and multiple degree agreements involving Italian universities dating to the EC's first initiative and support for such programs in 1976.

¹¹⁹All these forms are included under the generic category of "joint degrees" as defined by the Council of Europe's "Recommendation on the Recognition of Joint Degrees" (Council of Europe 2004).

others), representatives from partner universities meet more than twice a year to monitor academic and administrative issues, i.e. evidence a high degree of quality culture (Maiworm 2006 pp. 19-20).

Some 80 joint Masters Degree programs were established under ERASMUS Mundus between 2004 and 2007,¹²⁰ though some of them cannot be found on the Web today and others are highly specialized and rather small, e.g. 17 openings for students outside the E.U. in a MSc program in Coastal and Marine Engineering and Management.

What do such programs look like? The topics are very attractive, ranging from European Philosophy to Digital Library Learning. Here are two Master's programs from the 80 listed by the EC in 2007:

1. Color in Informatics and Media Technology. Covers photonics, computer vision and imaging science, classic computer science, and multimedia technology. The offering consortium consists of Saint-Etienne (coordinating), Granada, Joensuu (Finland), and Gjøvik (Norway). The way the program is set up, the student attends at least 2 (and possibly 3) of the institutions over the 2-year period, and receives a multiple degree. Courses are taught in English, with a TOEFL of 550 required for entrance, along with a bachelor of science in computer science, physics, or math. 30 students a year from both EU and non-EU countries attend.
2. Applied Ecology. Covers conservation, toxicology, functional ecosystem dynamics, evolutionary ecology. The consortium consists of Poitiers (coordinating), Christian Albrechts in Kiel, Coimbra (Portugal), and East Anglia, an impressive group. Intensive language training (French, German, or Portuguese) is part of the first year, though English is the language of instruction. Everyone spends fall in Poitiers, winter in Norwich, and summer in either Coimbra or Kiel. In the second year, you pick your specialty and stick with the institution that offers it, e.g. Coimbra for ecotoxicology. You do a master's project and defend your thesis at the 2nd year host institution. Everyone reassembles in Poitiers in September after the 2nd year, presenting their project both to fellow students and incoming students. They take 20-30 "third country" (non-EU, non-EEA-EFTA state, non-EU candidate states) students per year.

A reading of the ERASMUS Mundus *Masters Course Compendium* (European Commission 2007d) offers dozens of examples such as these. Such creative joint degrees are an attractive engine of mobility, but at the present moment, with 9,000 students involved (according to

¹²⁰See http://ec.europa.eu/education/programmes/mundusprojects/index_en.html. Links from this page to the 80 programs listed are provided.

Zgaga) their situation is fragile, and, as *Trends V* observed, “very marginal.” (Crosier, Purser, and Smidt 2007, p. 30). Some might criticize them as cases of niche-building and (Maiworm) exclusivity, hence fragmentation of fields, and offer that as an explanation for low enrollments, but they evidence the kind of curricular creativity that Bologna assumed would be a by-product of both degree cycle reform and cross-border program cooperation and development. Most of them were brought on stream post-Bologna,¹²¹ so there is no question of this dual-motivation. Now are the ERASMUS Mundus degree programs part of Bologna’s “external dimension”? No and yes. “No” in the sense that the initiative is not Bologna (it is a European Commission program under the Lisbon Strategy), and when you read who is eligible as a “third country” student, Bologna countries would turn up (e.g. Russia, Moldova, Georgia). “Yes” in that there is no question of what Bologna had in mind by a Euro-centered mobility: multiple cultural settings, cooperative program execution across borders, and topics that fit into a globalized economy and consciousness. This is a level of mobility that goes well beyond student exchange. And “yes” again in that it is another case of the “additionality” that the spirit and energy of Bologna encourages among its partners and associates. To fulfill its external dimension objectives, Bologna needs more ERASMUS Mundus joint Master’s degrees after 2010, and with expanded enrollments that also respond to pressures for access to the 2nd cycle.

PART IV: REFLECTIONS BEYOND BOLOGNA “ACTION LINES”

11.. The Larger Language Landscape

The external dimension of Bologna inevitably brings the language landscape to the table, a landscape that should be considered in its own right, and not as a subsidiary topic.

It has been noted before in these pages: to an outsider, the most remarkable feature and greatest challenge of the Bologna Process lies in its execution across 23 major languages (and that is in the 27 countries of the European Union alone¹²²). All the mechanics and documents of the venture, from qualification frameworks to Diploma Supplements, must be rendered in more than one language. We have previously remarked on the problem of core vocabulary in the arena of Quality Assurance, with the default *lingua franca* of “European English” being translated and retranslated, and, in the process, losing its moorings to the realities it has tried to represent. The Bologna Follow-up Working Group on Qualifications Frameworks (2007) advocated the involvement of international experts in the development of national qualifications frameworks, and cited the exemplary processes of Ireland and Scotland in this regard, but

¹²¹Of the 300 programs participating in Maiworm’s 2006 survey of multi-national double, multiple or joint degrees, 76 percent were established after the Bologna Declaration. (Maiworm 2006, p.4)

¹²²In its 2007 survey, and including regional languages and dialects, the European Commission counted 438 languages spoken in the 22 countries covered (European Commission 2007d, p.7).

immediately acknowledged “linguistic challenges, particularly where a verification process is undertaken in a national language whose use is not widespread across Europe” (p. 25).

The first Tuning process in Business involved faculty from 12 countries speaking 10 languages, and writing learning outcome reference points across the “value chain” of a firm: procurement, marketing, distribution, customer service, etc. Somehow, they succeeded in overriding linguistic nuances, but we can imagine the adjustments along the way that came from Italian and Norwegian participants, or Portuguese and Greek interpretations of the core learning outcome terms. Languages and their accompanying traditions also create specialized vocabularies, as in definitions of beginning higher education students or term and examination periods, for example. If and when all Bologna countries turn to the task of consolidated data collection, these vocabularies will present considerable challenges to standardization. Even though over 100 languages are spoken in the United States, the speakers are dispersed across multiple political jurisdictions, and most of us don’t even think about language conundrums in talking or writing about higher education. Europeans cannot avoid the topic.

Higher education is not the only enterprise at issue on the language landscape. Front and center, in fact, are the economies into which presumably employable freshly-minted Bologna bachelor’s degree recipients will move. In 2006, the National Centre for Languages in London conducted a survey of 2000 small and medium-sized enterprises (SMEs) in 29 European countries on the ways they seek to advance their language flexibility. SMEs employ half of Europe’s workforce, and to the extent to which they could become more successful exporters, there would be considerable benefits across the European economy. Language skills are critical to the export trade, and investment in language skills is a fixed cost of export. Without that investment, contracts are frequently lost or precluded. Roughly 11 percent of the SMEs surveyed said they had lost business due to lack of language skills, most frequently in the environments of correspondence and negotiations.

A considerable majority of the SME respondents thought that English was “a key language for gaining access to export markets” (p. 6), but it is obvious that English is not the only language, and, depending on where one is located, there are distinct tones, e.g. if you want to trade in the former Soviet bloc you still have to use Russian, though German is a back-up in those areas. French works on the Iberian peninsula more than elsewhere. English, it is reported, might be used for initial market entry, but “longer term business partnerships depended upon relationship-building and relationship-management, and, to achieve this, cultural and linguistic knowledge of the target country were essential” (p. 6). The export proportion of sales in SMEs that utilized elements of language management such as multi-lingual Web sites, recruiting native speakers, hiring translators and interpreters, and providing language training to their own employees was 45 percent higher than that for organizations that did not.

Multinationals and global corporations, by contrast, tend to be dominated by English as a “neutral language,” but even in the multinational world “horizontal communication depends

almost always on a network of personal relationships, which are language-dependent” (p. 13). Location decisions, work with subsidiaries, etc. all rely on multi-lingualism. And more than 20 percent of SME firms in the Czech Republic, Hungary, Latvia, Lithuania, Portugal, Romania, and Spain also admitted that internal language competence influenced their choice of export markets (p. 25).

Such common sense tells us that Europe, facing the challenge of a single economic market and a pluralistic and expanding political and cultural landscape (complexified by the new communications technologies), is very serious about language learning. At the same time, official pronouncements reflect realistic expectations. When the European Commission set a goal of “Mother tongue plus two other languages” as a school-age objective (EC 2003),¹²³ it explicitly acknowledged that native speaker fluency was not the point, rather “appropriate levels of skill in reading, listening, writing and speaking in two foreign languages. . . together with intercultural competencies and the ability to learn languages whether with a teacher or alone” (p. 8). In fact, multilingualism in EU policy means more than learning major languages. It’s an inclusive policy, acknowledging and supporting regional languages and dialects as well as the majors, and is defined as

. . .the ability of societies, institutions, groups and individuals to engage, on a regular basis, with more than one language in their day-to-day lives. In this context, a language is defined neutrally as a variant which a group ascribes to itself for use as its habitual code of communication. This includes regional languages, dialects, and sign languages. In addition, the term multilingualism is used for referring to the co-existence of different language communities in one geographical or geo-political area or political entity. (European Commission 2003, p. 6)

Multilingualism is hence seen as a tool of “sustainable employability” (p. 9), an intercultural value, a means of enhancing all cognitive functions, and a way to lift the educational attainment of entire populations.

The European language landscape is like its topography: there before the Bologna Process and the Lisbon Strategy, and will be there after memories of both have passed into a previous geological era. However embracing and multidimensional the current rhetoric of the European Commission, the teaching of language after secondary school echoes that survey of SMEs: it is driven by business and employability. As a lesson for the workforce development mission of U.S. community colleges, the multi-lingual drive extends to occupationally oriented short-cycle credentials, for example, the BTS in France (*Ministere de l’Enseignement Superieur et de la*

¹²³Eurobarometer survey 243, *Europeans and Their Languages* (Feb. 2006) shows a range of adult respondents who possessed “Mother tongue plus two” from 16 percent in Italy to 75 percent in the Netherlands. (European Commission 2006b, p. 7 and p. 9).

Recherche 2008b). At this level, the Ministry asks for demonstration of oral competence in a second language more than the competences associated with writing. That makes sense, since writing is the last learned and most complex of the four language skills. Where MEN goes beyond the template used for the Europass Language Passport lies in adding competence specifications for grammar, vocabulary range and accuracy, pronunciation, and cultural elements (including abbreviations and gestures, along with behavioral norms, dress, unique modes of work, etc.) which, it correctly assumes, are necessary for communication in occupational life.

For example, to master a language at the level of an independent user (the level B2 that we saw on the Europass Language Passport), the student should demonstrate competence in the following strategies in oral production:

- Planning what one wishes to say and drawing on all necessary linguistic means;
- Expressing oneself in an intelligible manner with respect to pronunciation, accents, phrasing, rhythm, and intonation;
- Utilizing paraphrasing to compensate for what would otherwise be lexical and structural ellipsis;¹²⁴
- Reformulating an idea to render it more clear;
- Correct lapses and errors as soon as one is aware of them in order to preclude misunderstanding. [p. 8; Author's translation, with licence]

So, the program provides examples of “professional tasks” faced by advanced technicians, and, for each, criteria for acceptable performance in the target language, with examples of knowledge and strategies utilized in attaining that level of performance. Examples of these tasks include:

- Oral presentation of a manufacturing process;
- Explaining to your colleagues the reasons for acceptance or rejection of a project proposal;
- Participating in a negotiation for the structure of research training;
- Conducting a telephone conversation with a stranger to organize an activity (pp.13-16)

For a level B2 certification, the BTS candidate goes through a 30 minute oral interview without preparation, and a 15 minute structured interaction for which 30 minutes of preparation is allowed. What transpires in Toulouse transpires elsewhere in Bologna countries, though perhaps with a different template.

¹²⁴Quite frankly, this is one of the smartest criteria the author has ever encountered for oral expression with audiences whose native language is not yours,. Ellipsis is a gaping wound in oral presentations to multi-lingual audiences.

The improvement of multi-language competence is not an action line in Bologna, does not make a major appearance in any of the biennial ministerial communiques, but is implicit in all its trans-national processes and mechanisms. It is most visible in the social dimension, where second and non-indigenous language populations are among the under-represented, and in the external dimension, where language learning is seen as both an opportunity and barrier for students contemplating international mobility. It is also visible in its official document use of European English as a default *lingua franca*,¹²⁵ and in the growth of Master's degree programs offered in English in non-English speaking countries, presumably as one element in making the European Higher Education Area more attractive to non-European students, thus compounding the existing "Anglophone asymmetry" in international student mobility (Hughes 2008)¹²⁶. The European Commission is not very happy about European universities in non-Anglophone countries offering courses and whole degree programs in English, worried that this trend undermines "the vitality of the national language" (EC 2003, p. 8), but there is no denying its continuing presence.

12. Bologna 2020: What is Left to be Done?

This monograph has covered a lot of territory, some of it not as completely as European readers would like, but in sufficient detail for North American readers (Canada as well as the United States) to grasp in modest depth what our European colleagues have wrought to date. This document will be released prior to the 2009 Bologna ministerial meeting in Leuven/Louvain, Belgium and all the biennial reports (*Trends, Stocktaking, Bologna With Student Eyes*) and Bologna Follow-up Group documents that accompany such gatherings, hence does not benefit from the current assessment of the Bologna community of its status, momentum, and remaining tasks. The Bologna Process has been a highly reflective undertaking, and European participants themselves know where they are lagging in their own agendas and how to take the learning of a decade forward to modify and improve their action lines. They also know, in words spoken at a 2005 Bologna Seminar hosted by the European Students Union and the French National Ministry of Higher Education and Research that they face a "multi-speed Europe" (Stastna 2005, p. 20), i.e. there is considerable variance in the pace at which participating countries are moving toward the ends of core Bologna action lines. The ESU has been persistent in its critique of national systems' *a la carte* approach to Bologna reforms. Those of

¹²⁵There are many explanations for the way English became the default second language of the world. The author contends that it was principally (1) a matter of technology transfer: the language that accompanied aircraft systems and air traffic control, the language of the computer hard drive and the code of major software programs such as Java (which relies on a core set of about 60 English phrases and a syntax that is difficult to transpose to another language); (2) a matter of the diffusion of mass entertainment media produced principally in the U.S.; and (3) because it was the language of post World War II occupation in both Europe and Japan. Linguistically, English is comparatively uninflected (no declensions or agreement rules, no verb conjugations), not burdened by gender rules, and offers an analytic syntax, i.e. it's comparatively easy to learn.

¹²⁶Wächter (2008, p.32) reports 652 such English-taught Master's programs, over half of which were established since 2003.

us outside the EHEA who have not attempted such massive transformations should not be too judgmental.

What do thoughtful Europeans see in the current state of Bologna, what needs to be changed, and where they are going? First, that the original overarching motivations for Bologna—Euro integration, Euro competitiveness, and student mobility—have been superceded by its tools and adjuncts. Qualification Frameworks became a tool; Quality Assurance became an adjunct (though no doubt it should be constitutive to the conduct of higher education). Instruments such as ECTS and the Diploma Supplement became globally visible. The “social dimension” was integrated into the motivational framework, but remains incomplete.

Second, a sensible stepping back from over-reaching visions. Take the objective of making the EHEA the most attractive destination for foreign students. The new configuration of the competitiveness action line recognizes (as the Lisbon Strategy does not) that the chances of closing the gap with the U.S. as the world’s “leading knowledge economy” is unlikely, so turns to the goal of EHEA “becoming the most creative and innovative sector in a global setting” (BFUG 2008, p. 8). The presentation of the Bologna Process in these pages has not been one of blind boosterism, but there is no doubt in the author’s judgment that the EHEA is well out in front on creativity and innovation in higher education.

On Mobility. Again, BFUG (2008) steps back, looking at one of the original motivations for Bologna—not merely creating a trans-border work force but also cultural understanding—and judges that Bologna, particularly in its reform of degree cycles, has put obstacles in the path of expanding mobility, and turns, instead, to making the study abroad period “more meaningful” for those who elect it. Still, it is recognized that in a post-2010 Bologna world, participating countries have to improve the portability of grants and loans for international study and to go further down the recognition path. Joint degrees and more institutional partnerships are envisioned. As we know from extant data and reports, there aren’t enough of them and participation is comparatively low.

Nonetheless, in terms of what is left to be done, it is fair to offer a brief assessment outline. Everyone has a list or configuration, reflecting personal, organizational, academic, and/or national biases. Some will offer configurations of recognition, social dimension, and/or external dimension tasks. Others will hone in on discrete agenda items such as e-learning or student participation in Quality Assurance processes. The author would rather be suggestive than exhaustive, and picks five macro dimensions of the unfinished Bologna portfolio to illustrate.

1) National Qualifications Frameworks, the lagging process of which has been previously noted, simply have to be completed and self-certified as compatible with the QFEHEA as a fundamental condition for the seamless recognition of degrees. Everyone knows this is a slow process, with sometimes tedious negotiations among stakeholders, and with pressures to

ensure that the higher education NQFs also fit with the K-Doctoral European Qualifications Framework (EQF) of the Lisbon Strategy. Where National Qualifications Frameworks intend to accommodate the Lisbon EQF, they require “legal conditions,” as they affect levels of education for which the state is wholly responsible (Stöger and Lassnigg 2007), and passing a set of laws only sets up the conditions for generating an NQF. The laws are not the document at issue. Both the EQF and the QFEHEA are based on outcome and competence statements, but the resemblance weakens after that. The earliest National Qualification Frameworks (Ireland and Scotland) look like a rough vertical match to the Lisbon EQF, but there is much more detail at the higher education levels in these frameworks than the EQF offers.

The absence of a full set of NQFs also hinders the full development of continent-wide Quality Assurance. The recent self-certification from Germany (BMBF and KMK 2008), drawing on Tuning methodology and Dublin Descriptors as reference points against which the German scaffolding was set, is a parsimonious and convincing model for any system in transition, and includes an appendix on recognition and equivalency agreements, along with a list of roughly 300 cross-border joint degree offerings at Bachelor, *Diplom*, and Master’s levels. The draft Dutch self-certification of its NQF offers a different model in assigning monitoring and enforcement of the qualification framework to the national accrediting body, NVAO. This approach offers a creative way to link the two action lines, and to facilitate closure on an NQF, and is also worthy of emulation. In the even more recent UK self-certification (QAA 2009), the quality assurance reference is not to accreditation (there is no national accrediting body *per se* in EWNI) but to both the long-established systems of institutional audits and review and the Quality Assurance Agency’s “academic infrastructure,” of which the national qualifications framework is a core element. The mapping of each section of the UK qualifications framework to the Dublin Descriptors is yet another model indicating how one takes a text with considerable “detail and precision” and connects its generic features to the generics of the QFEHEA, leaving the detail to “provide points of reference. . .to higher education providers and their external examiners” (QAA 2009, p. 40).

2) Penetration of core reforms through the faculty. We know some countries came late to the table, and the diffusion of reforms is lagging even at the administrative level. We know that thousands of faculty have participated in projects large and small—in Tuning, in Thematic Networks, in curriculum reform, on committees reconstructing ECTS, etc. We even know, from Eurobarometer surveys of faculty, that the majority (if not a significant majority) approve of changes in degree structure, qualification frameworks, and ECTS. But all that is not enough for the Bologna reforms to stick. Diffusion at the institutional level is called for, and the process will inevitably enhance the culture of quality and curriculum reform. Faculty identify first with their disciplines and disciplinary paradigms (Becher 1989), and that is where the Tuning model, with field-based learning outcomes and competences and substantive reference points for the assignment of credits, becomes the anvil of involvement in the core of Bologna. The next decade should see an expansion of Tuning, bringing more faculty into an active process of

learning how to write criterion-referenced learning outcome statements in their disciplines, and develop effective formative assessments. A lot of workshops and development loom, whether through “Tuning Central” or the Thematic Networks. Some faculty may be tired after a decade of work on Bologna tasks, but there are thousands of others who can now step to the front lines. Faculty will let the employability and mobility objectives of Bologna take care of themselves, but curriculum, the organization of instruction, and the delivery of knowledge and skills is their territory. It’s a pasture that calls for further irrigation and culturing. The author tends to be more optimistic about further diffusion through the faculty ranks after the 2010 assessment of Bologna’s progress. Validation of the “convergence club” theory at the faculty level may even be accelerated by hard economic times: more will join because it is the only game in town that evidences momentum.

3) Lifelong Learning and all that comes with it, the most likely road to further peace with at least some elements of the Lisbon Strategy, enhancing the meta-convergence of the two strategies into what Veiga calls “*framing integration*” (Veiga 2005, p. 10). Lisbon has been about “a European way to evolve to the new innovation-and knowledge-based economy, using distinctive attributes ranging from the preservation of social cohesion and cultural diversity to the very technological options” (Rodrigues 2004, p.1). In its first five years, Lisbon basically stumbled due to lack of coordination and conflicting economic and non-economic priorities (Kok *et al.* 2004), and required a comprehensive “re-start” of its action plan, focused principally on growth and jobs, and streamlined human capital objectives (Barroso 2005; European Commission 2005b). We have noted its intersections and attempted intersections with Bologna in matters including the 8-level European Qualifications Framework, credits (ECVET), and Europass. To these we would add initiatives of the European Commission in support of the Lisbon agenda such as the expansion of Internet access and IT skills, second language acquisition, but, most importantly, an overarching Lifelong Learning action line.

Lifelong learning is the field on which traditional higher education and continuing education for purposes of workforce development meet, and is a field on which all 46 Bologna-participating countries can join (and not just the 27 EU members of the Lisbon universe). However generalized the Lisbon agenda has been on this score and however distant European universities traditionally regarded the programmatic and student population implications of Lifelong Learning, there is no question that the Bologna action line structure offers Lisbon the most promising routes to realizing the provision of continuing learning opportunity.

Besides, there is the matter of Euro-demographics, with an aging population and a shrinking traditional-age pool for higher education.¹²⁷ The Bologna response goes beyond lifelong

¹²⁷ Among OECD countries participating in Bologna, only two (France and Ireland) show population growth rates greater than 0.5 percent, while 11 evidence flat (less than 0.2 percent) or declining growth rates (go to www.migrationpolicy.org, and use the Data Hub, country by country, to generate this information).

learning mantras, structures, and processes to the challenge of preserving “solidarity between generations” (BFUG 2008, p. 13), which seems to mean increased involvement in education for both parents and children. The statement of objectives for Bologna in its post-2010 life is worth italics:

. . .to design the lifelong learning agenda in such a way that it can meet the challenges posed by an ageing population. Widening access and diversifying the body of learners are objectives that are met through the implementation of student centered learning and through flexible learning paths connected to qualifications frameworks and to recognition of prior learning. This will entail a mainstreaming of lifelong learning in institutions of higher education and will call for changes in the legislative framework.

Furthermore, the implementation of lifelong learning to meet the demographic challenge has an impact on mobility. Mature students are less likely to engage in mobility schemes for personal or family reasons. The same situation applies to part-time students who will have to combine work and study. Mobility will have to be conceived of differently to meet the demands of an ageing populations. (BFUG 2008, p. 13)

You don't see this level of sophistication in U.S. discussions of demographic trends and their implications for higher education. You don't see references to recognition of prior learning, qualifications frameworks, and the comparative geo-immobility of older students. And unless the environment is that of a community college, serving older beginning and recurrent students, mainstreaming of lifelong learning is not very visible.

The European University Association has issued a *Charter on Lifelong Learning* (EUA 2008) that casts the Lisbon mantra within its own traditions, as “research-based higher education for lifelong learners,” (p. 4) a concept broad enough to encompass traditional university enrollees, and, of course, to include their own research faculty whose lifelong learning “can also be a source of new research methodologies and topics” (p. 6). But who else is included? The Charter sets the answer by marking the pace of globalization and technological change, and in recognizing European demographics that are producing older societies. It then argues that universities are “key actors” in the process of adaptation to these changes, but how, precisely, that translates into a lifelong learning mission involves a small logical leap.

The Charter notes that lifelong learning covers a lot of territory, from adult basic education (“initial education for disadvantaged groups”), continuing education for “well-qualified graduates,” and “post-retirement opportunities for cultural enrichment” (p. 3), a list that excludes most connections to workforce education and links between the labor market and the formal higher education system. So what EUA says universities would do, without taking on the mission of U.S. community colleges, looks like some incremental adjustments in opening up “a wider range of educational services,” foremost of which is what we have abbreviated as RPL,

described as “the establishment of systems for fair assessment and validation of all forms of prior learning” (p. 4). The EUA Charter also commits its institutions to “flexible and transparent learning paths” (p.5), but is not explicit about part-time status; “providing appropriate guidance and counselling services” (p. 5); setting a good example by offering learning opportunities to their own employees, and the usual “quality culture” rhetoric, i.e. if we’re going to get into this, we have to let everyone know that it won’t dilute our standards.

This is all unfinished business, and worthy of pursuit through the next phase of Bologna to 2020. What, of a wish list for lifelong learning that serves Lisbon equally with Bologna, is doable over the next decade?

- Making sure that national Quality Assurance systems include lifelong learning in their standards;
- Supporting those guidance and advisement services (one assumes, with money);
- Providing incentives for inclusion of the assessment and formal recognition of prior learning in national qualifications frameworks;
- Promoting regional partnerships, which would involve employer and union organizations across, e.g. Eastern Europe, Scandinavia, Iberia, etc. to bring workforce development under the lifelong learning umbrella;
- Public information campaigns that focus on university roles in lifelong learning; and
- Ensuring that universities themselves act as model employers.

4) Data development and convergence. Virtually all observers of Bologna have commented on the paucities and inconsistencies of information—principally quantitative—on what truly matters most: what happens to students, the ultimate measure of Bologna’s success.¹²⁸ For this one needs tracking systems and archival data structures that can be tapped for unobtrusive information at regular intervals.

The U.S., by contrast, is privileged with sophisticated, well-developed, and rigorously reviewed national postsecondary data systems that can produce institution-level and student-level data on demand through the Data Analysis System On-Line (www.nces.ed.gov/DASOL), and its state-level longitudinal tracking systems are starting to catch up. This is a field on which Bologna-participating countries have something to learn from us. There are national longitudinal studies in some Bologna countries (France, the Netherlands, and the UK, for example), but they do not offer anywhere near the richness of academic history one finds in U.S. studies. Beyond such studies—and across all national systems—Bologna participants need to identify and prioritize the student-level indicators (hence comparable data) on which

¹²⁸ *Bologna With Student Eyes 2007* judges only six countries as offering adequate student-level data. (ESU 2007, p. 14).

they wish to be judged. The 2005 CHEPS Curriculum Reform Survey (CHEPS 2007) asked deans and directors of study in medicine, law, teacher training, engineering, and history how the impact of Bologna should be assessed. Their responses:

Mobility:	48%	Employability:	39%
Access:	42	Graduation rates:	32
Quality of Education:	39	Cost Effectiveness:	29

(CHEPS 2007. Pp. 68-69)

Even setting aside the two non-student-level indicators in that list, as of 2005, academic leaders really hadn't made up their minds. Perhaps a 2010 list will produce more clarity.

Even at comparatively early stages of Bologna, the "official observers" (the EC, EUA, and ESU), in various ways noted the necessity of better data and information—not so much for the sake of serving future media appetites as for guiding the processes of implementing Bologna action lines. Calls for development and improvement of data collection continued from BFUG, e.g. in preparation for the Bergen ministerial meeting of 2005 (BFUG 2005) and for the London ministerial meeting (BFUG Working Group on Social Dimension and Data 2006), with a particular focus on social dimension and mobility issues, and with directions to Eurostat and Eurostudent.

By the time of the London ministerial meeting in 2007, though, it was very clear that not much had moved along those lines (Crosier, Purser, and Smidt 2007). While we now have two *Eurostudents* surveys, Eurostat did not come around to issuing guidance for collecting data on enrollments and completions under the new Bologna degree cycles until 2007 (Eurostat 2007). The indicators used in the *Stocktaking* and *Trends* series of reports have been focused principally on nations and institutions—and not students—as the units of analysis. So we have tables, for example, on how many national systems issue Diploma Supplements and categorical conditions of issuance, but no tables on the proportions of students who actually received Diploma Supplements at each degree level. As Veiga, Amaral, and Mendes (2008) tellingly demonstrate, the reliance on such indicators generated by national authorities for the *Stocktaking* reports are both disconnected from underlying realities, and "tend to present optimistic views of national achievements" (p. 48).

Student level data across the Bologna landscape is a challenging undertaking. As the Bologna Working Group on the "social dimension" and data on mobility of staff and students observed in 2006, some countries do not have national data sets (and, we would add, may be unwilling to invest in developing them) and suggested that some core Bologna reporting requests could be used as an incremental development incentive. But, the group reminded us, "the difficulties inherent in developing reliable and comparable data sets should not be underestimated" (BFUG 2006).

The author has written about this issue previously (Adelman 2008), but the suggestions are worth repeating. What Bologna will need by 2020 to answer to itself are at least four student-level indicator groupings:

a) Standard default reporting of new entrants, enrollments, and completions of the type normally gathered by Eurostat, but adjusted for the new distribution of degree cycles.

b) Non-standard indicators that are by-products of Bologna action lines directed at increased flexibility, e.g. continuation from 1st to 2nd cycle degrees (and from short-cycle to 1st cycle, where applicable), change of field within degree level and inter-degree level, non-traditional points of entry to tertiary education such as Recognition of Prior Learning, and changes in the status of part-time students.

c) Standard, though rarely produced, indicators of improved access to tertiary education such as changes in participation rates in historically low-participation neighborhoods, districts, and regions, and among under-represented populations such as students with disabilities, children of immigrants, and children of the working class (three of the populations most commonly cited under the “social dimension” action lines).

d) Non-standard indicators of the penetration of core Bologna standards and quality objectives such as the proportion of students earning degrees at each cycle under established national qualification frameworks, the proportion of students earning degrees in programs that have completed the “Tuning” process or where subject benchmarks have been established and publicly promulgated, and the proportion of students earning degrees at either institutions or fields in which an accreditation process has been completed.

To start down this road will probably require another Bologna Working Group, and ultimately some convergent agreements on definitions, data collection timing, methodology, and reporting among national agencies responsible for higher education statistics. Yes, the effort will require funding and this is not a propitious time to seek funding, but that time will come.

5) Teaching the rest of us, the logical extension of the external dimension. That is a very simple statement.

13. What Should U.S. Higher Education Learn?: Epiphanies for Our Eyes

We end where we began, in what economist Jeffrey Sachs calls “the age of convergence” (Sachs 2008, p. 18), and ask only that U.S. higher education open its borders to learning. We’ve had a good run, as the saying goes, but we are no longer at the cutting edge. U.S. higher education can no longer sail on the assumption of world dominance, oblivious to the creative energies, natural intelligence, and hard work of other nations. We cannot rely on 50 research universities and 50 selective liberal arts colleges—some of which boast budgets and endowments (however diminished) greater than those of entire countries—to carry the day for

the mass of our students. We cannot live in a room of mirrors, claiming that we are so unique that nothing occurring beyond that room matters. Mirrors lead to delusions, e.g. that we already do what the major action lines of the Bologna Process call out for us to study, reflect on, and perhaps adapt to our own circumstances. Mirrors lead to short-term, positivistic bean counting and instant predictions of how many beans we can put in a bowl. We are mesmerized by the immediacy of “how much,” absent a historical “how well.” It’s time to break the mirrors. The rhetoric of this presentation thus now moves from the descriptive and analytical to the polemical.

The point of learning from other nations is that of differential perspective. It’s something U.S. higher education consistently advocates in matters of inter-cultural understanding: we want our students to be able to see the world from perspectives other than their own. It’s what was said about Shakespeare: he had “negative capability,” i.e. he could live in other characters, cultures, and eras, perceive with the innate assumptions and contexts of those characters and their environments, and with the effect on an audience of re-possessing its own environment in a different key. When one watches other nations address problems similar to one’s own, with languages and cultural traditions that cast their solutions through lenses one has never used, new ways of configuring your own solutions inevitably arise. Inevitably, as in “I never thought about it that way!” Call them epiphanies.

What were the story-lines of this essay, and what, in brief, does it suggest our higher education community think seriously about?

13.1 The Accountability Loop

The primary story is what we have called “the accountability loop.” It is about providing students with clear indications of what their paths through higher education look like, what levels of knowledge and skills will qualify them for degree awards, and what their degrees mean. These are road signs that are sorely lacking now in the United States. Student “success” does not mean merely that you have been awarded a degree, but that you have learned something substantial along the way and that the world knows what you have learned, what skills you have mastered, and that you have the momentum to meet the rising knowledge content of the global economy.

Over the past three years, U.S. higher education was first treated to former Secretary of Education, Margaret Spellings’ Commission’s *A Test of Leadership: Charting the Future of U.S. Higher Education*. The Commission paid no attention to Bologna whatsoever, and its only nod to the international environment of higher education lay in reciting OECD comparative population ratio data indicating that the U.S. had “fallen” from X place to Y place in matters of

degree attainment.¹²⁹ While the Commission offered some sensible, if limited, recommendations on access and affordability, what one realizes after studying Bologna is that the Commission did not understand either quality or accountability in higher education at all.

The dominant response of the U.S. higher education system to this underwhelming prodding was to produce numbers in the name of transparency and accountability. We're very good at producing numbers—and with alacrity. As previously remarked, the U.S. has the best higher education data systems in the world, with a first-class workforce of institutional researchers to match, and can measure everything that moves—and in just about every way it moves. Other nations have reason to be jealous.

There is nothing wrong with producing numbers on degrees awarded, time-to-degree, and student responses to questions about out-of-class contact with faculty, for example, on the National Survey of Student Engagement. Whether “value-added” measures reflected in scores on tests taken by small samples of an institution’s graduating classes reflect anything meaningful is another matter,¹³⁰ but those numbers are posted, too. Honest numbers are a comforting form of documentation, and documentation is a first step on the road to accountability.

But that’s all it is—a first step. Posting numbers is not accountability. The numbers have no substantive reference points. What the number and distribution of degrees awarded means, for example, is only that the students represented earned 120 credits (or its equivalent), with 40 credits (or whatever local and disciplinary rules require) in their major, a 2.75 GPA (or whatever

¹²⁹There are considerable problems with comparative international performance data based on population ratios, the standard OECD methodology. The U.S. is not only the largest ship in the 30 nation OECD harbor, but the only ship that ranks in the top five in basic demographic categories of fertility rates, net positive migration, and growth rate, i.e. our denominator is growing, whereas for most other OECD countries, the population denominators are flat or declining. Even assuming that census methodologies are the same across the 30 countries (they are not), one doesn’t need more than 4th grade mathematics to know what happens to a percentage when denominators rise and numerators are flat; or when denominators fall and numerators are flat. The comparisons are never presented with demographic trend contexts, and are comparatively meaningless. The Global Performance Initiative of the Institute for Higher Education Policy will take up this issue—among other related data conundrums—in more detail in a study of comparative international higher education data to be released later in 2009.

¹³⁰There is a lot one could say about this, but what the Burgess Scoping Group observed of the “comparative institutional effect” version of “value-added” is rather pointed for the U.S. system, in which over 60 percent of traditional-age undergraduates attend more than one institution: “not all ‘growth’ is necessarily attributable to the time spent under an institution’s aegis; natural maturation and engagement in a variety of extra-curricular activities will also contribute.” The only way one might go about this effort seriously would be to use large cohorts, since that would “balance out. . .the extraneous variables” (Universities UK 2004, p. 26). Large cohorts are simply not used by U.S. institutions that post Standard Deviation Unit increases in test scores as part of their documentation displays.

minimum threshold is prescribed by the institution), passed Freshman Composition (or whatever the institution indicates as a writing requirement), and may or may not include evidence of mathematics achievement at a level beyond high school intermediate Algebra. There is no “there” in all of that. One cannot write a coherent sentence about what a bachelor’s degree represented by those numbers means. Passing out degrees without public statements of content and performance that are also operational, i.e. lead directly to prompts for assessment (by papers, laboratory reports, performances, exhibits, examinations, journals—or a combination of these) and criteria for execution on those assessments, means nothing. Bologna reminds us that content counts. That’s a very clear message. How we make it count may not be the way that the Euros have done it, but it’s worth the effort to develop a new scaffolding for what are otherwise grand ellipses in our system.

What studying Bologna reveals is that if your discipline, institution, and system have all established and publicly promulgated clear and discrete criteria for learning and thresholds of performance, that evidence, in itself, creates a powerful endorsement of the credentials awarded. When backed by a Diploma Supplement, and sealed by a culture of quality demanding *continuous* monitoring and improvement (and not merely for the occasion of an accreditation visit), you have a public warranty.

In the emerging Bologna-inspired world higher education order, other countries would be taking a great leap of faith in recognizing U.S. undergraduate—and even some graduate—degrees without operational outcomes statements in the disciplines. If other countries have to make that leap of faith, our own employers, governance authorities, and media translators to the general public are attempting to leap tall buildings in a single bound.

For U.S. public policymakers, the primary message to students translates into worrying less about how many pieces of paper we pass out, how many credits qualify someone for those pieces of paper, and how long it takes a highly mobile student population to arrive in a graduation line, and more about the knowledge, the application of knowledge, the information identification and retrieval skills, and the degree of learning autonomy students acquire and take with them into economic and community life. That’s something for U.S. policy makers and academic leaders of the “get-it-over-with-and-get-it-over-with-fast” school (who then complain about what graduates don’t know or can’t do, and for whom persisting part-time students are a paradoxical anathema), should think *very* seriously about.

In light of the account of the accountability loop, what might one suggest for a large higher education system in a large federal republic called the United States to achieve our own republic of mutual trust? The two points of the Bologna accountability loop most likely to appeal to our system are Tuning and Diploma Supplements, but both lead to other points on the loop, and ultimately to Qualification Frameworks. The Europeans may have started with QFs, but the more amenable first learning points for U.S. higher education lie elsewhere, so. . .

What can the accountability discussion in the U.S. learn from Tuning, benchmarking, and their analogues? What might we do differently—and how?

When departments of instruction in U.S. colleges, community colleges, and universities describe what students must do to earn a degree in a specific field, they list courses (required and suggested), credits, and minimum grade point averages, not learning outcomes. Sometimes, departments issue a statement of the purpose of the degree in terms of the careers to which it traditionally leads or careers in which its subject may be useful. Sometimes one finds flowery mission statements extolling the vision or heritage or human benefits of the field. But rarely is there even an attempt to provide a statement of the summative knowledge, skills, and capacities expected of graduates—let alone criterion-referenced performance criteria. The author examined undergraduate degree program descriptions in accounting and history (the same two disciplines we used to illustrate QAA benchmarking) at ten flagship state universities in the U.S., and found presentations devoid of any concrete sense of even the generic “competencies” side of the outcomes equation. Students themselves thus have little idea of the meaning of either their learning or the credential they receive.

Students come to college to earn a degree in a specific field—anthropology, mechanical engineering, nursing. They may know on entrance what they want to study; they may discover their true interest along the way; they may change their minds. But when they earn a degree, they earn it in a discipline (the Associate of Arts is an exception). Faculty, too, have earned degrees in specific fields, and are generally organized in departments that reflect the content of their credentials. Tuning starts with the discipline, with its faculty, its students, its recent graduates, and employers who hire those graduates. It is a natural orientation, the most amenable base for beginning to clarify and give meaning to degrees. The fact of the “Tuning Latin America” project (ALFA) that has expanded since its 2004 beginning to 182 universities from 19 countries and 12 subject areas should tell us just how attractive this process is becoming in a distributive universe.¹³¹

So what might we do? Nearly 20 years ago, the U.S. Department of Education issued a request for proposals addressed to the academic disciplines in higher education asking for a response to a deceptively simple question: What would you do to create a model indicator of summative undergraduate learning in your field? This is a creative thinking question, not a call for the actual construction of indicators. What the exercise demonstrated was the ability of individual

¹³¹Connections with the Bologna Process through joint seminars and workshops (supported by the European Commission) and ties to universities of the former colonial powers Spain, Portugal, England, and France, have been maintained throughout the ALFA project. While the countries involved do not aspire to a Latin American Higher Education Area comparable to Bologna’s EHEA, they obviously see great value in consolidating their expansion and progress through quality mechanisms such as Tuning. They have moved through a survey parallel to that undertaken by Tuning (except they included current students along with recent graduates as respondents) to identify desired competences in each subject field, and are now on the terrain of the role, calculation, and allocation of credits.

disciplines to achieve a degree of consensus in the definition of different types of student learning, the priorities of those learnings at the penultimate moment of undergraduate education, and methods of producing evidence of that learning. The models were presented in the same spirit as Tuning or benchmarking, that is, with enough flexibility to fit different institutions yet with common reference points.¹³²

The polemic side of this essay does not suggest a revisit of that creative thinking enterprise, though reconsidering the question certainly would inject a notable degree of self-reflection in some fields. Rather, it advocates a combination of field and state system in writing qualification frameworks for each degree in a specific field awarded in a state—from Associate’s degrees in medical technology through Bachelor’s degrees in anthropology to Master’s degrees in public health. That means organizing all the departments in at least each major discipline in a state to engage in a Tuning-type project. But it also means learning from the evaluations of Tuning: paying close attention to language to ensure that what is described are knowledge, skills, and competencies—and not something else—and that the descriptions are operational, i.e. yield benchmark criteria that can be assessed.

The Tuning process does not bind individual departments to a single presentation of curriculum or a single mode of assessment (we all know that the flagship state university has more resources with which to offer its engineering degrees than a regional institution, and we also know that some departments in a field have particular strength in some sub-fields based on the specialty distributions of their faculties). But it gets them singing in the same key in terms of what it is that a state economy can expect of graduates. And when these frameworks are made public, you have

(a) a *de facto* accountability system that is stronger than anything we have in place now,

(b) far more persuasive than standardized tests, delivered to samples of students, of obliquely taught and indirectly developed cognitive operations or skills, and

c) statements that provide considerable comparability with the order of knowledge and skills distribution in a world without borders.

¹³² The results were published in Adelman, C. (ed.) 1989. *Signs and Traces: Model Indicators of Undergraduate Student Learning in the Disciplines*. Washington, DC: U.S. Department of Education.

Is this all hard work? Unquestionably. Can it be achieved by a state system overnight? Hardly. The consultative process in each discipline alone would take a year. Is it worth the outcomes? Ask the stakeholders: students, faculty, employers, governance authorities! It certainly beats the short cut of test scores (which nobody really understands) and dubious “value added” measures (which are understood even less). Our European colleagues did not take the easy route, and the route they took is now being imitated.

And it is arriving on our shores, at least in pilot form. Call it “Tuning USA.” Three state systems in the U.S.—Indiana, Minnesota, and Utah—have, with Lumina Foundation support, established study groups to investigate Tuning and its processes, protocols, products, and agreements. Each state has chosen two disciplines for this investigation, ranging from the traditional arts and sciences in Utah (Physics and History) to combinations of traditional arts and sciences and applied occupationally-oriented disciplines (Biology and Graphic Arts) in Minnesota. The number of institutions involved ranges from six to nine. Each disciplinary team involves faculty and an upper-division undergraduate student who is majoring in the field. After 8 or 9 months of work, these teams will decide whether to extend the process to other institutions in the state, to expand the number of disciplines in their own institutions, to recommend to state higher education authorities to adopt a multi-stage Tuning project as state policy, to do something completely different based on an insight that struck the group along the way, or to conclude, “Thanks, but no thanks!” These systems are setting an example for serious learning from Bologna. We should have confidence that others will follow.

Some might ask, “Don’t the national learned societies and professional organizations make statements on their Web sites of what graduates in their fields should know and be able to do? Why do we need Tuning and Tuning within state systems?” In response it should be pointed out that State systems set the criteria for awarding degrees at public institutions, and boards of governors at private institutions in combination with faculty do the same: learned societies and professional organizations don’t, and, in general, their Web sites are devoid of such guidelines. Statements on Web sites (when you can find them) may be very nice, but they have no authority, no legal standing. Even in the case of licensure professions, e.g. nursing, the state examination or its equivalent determines one’s professional status, and that examination (presumably) embodies the degree qualification framework. The detail of Tuning’s reference points goes far beyond even cases of accreditation standards in disciplines subject to accreditation. The Tuning templates extend—and do not conflict with—those standards. The Europeans have mounted Tuning projects in business, education, and chemistry—all of which are subject to specialized accreditation in the United States (the case of chemistry, though, is voluntary). So we have models to study.

What can the accountability discussion in the United States learn from Diploma Supplements? Recognizing the compelling features of European intent, how might a U.S. version of a Diploma Supplement fulfill the function of a warrantee in a parsimonious manner while certifying the full color of the student's achievement?

Like Tuning, the Diploma Supplement fits the natural rhythms and organization of U.S. higher education, and invites us to put students first. The document is a way of being accountable to them beyond the diploma and transcript, and represents them to future employers in a convincing manner. However much some may resist the notion, Diploma Supplements also put institutions of higher education on public record in terms of their standards for degree qualifications, and to hold them to consistency in these critical matters. As borders diminish even more as factors in labor markets, as the scope of human betterment (let alone survival) expands from the neighborhood and village to the planet, our students will need all the help they can get in joining others in both work and the unavoidable confrontation with global conditions, and they will need convincing evidence to join. It all comes together—system, institution, major program, and student—on a document such as this. In the author's judgment, the Bologna Diploma Supplement, in its present form, does not fulfill its intentions. Suggested is something analogous but different, a "legible" U.S. Diploma Supplement that contains:

- 1) Standard boilerplate on the name of the credential, field of study, institution and its type and status (in the U.S., using the Carnegie classification system), institutional accreditation information, and program accreditation (if applicable).**
- 2) A statement of the utilitarian purpose of the degree granted in the field in which it was granted, e.g. as preparation for the next level of study, as preparation for work in specific occupational fields or industries, as preparation for public service areas. For some odd reason, we rarely make public statements about the purposes of our degrees, certainly not across our system.**
- 3) Not-so-standard boilerplate indicating (a) all other institutions attended by the student from which credits were accepted and applied toward the credential (including study abroad), and (b) the percent of the student's credits that were earned at the institution awarding the degree. While this information can be determined from the transcript, it is better aggregated and highlighted on the Diploma Supplement.**
- 4) A statement of the way in which the student came to the institution, e.g. from high school, by transfer, through assessment of prior learning, through a special bridge program, etc.**

5) If the state or institution has developed and implemented a qualifications framework for the degree level in question, reference it and put the framework in an appendix. Otherwise, skip this entry.

6) Specifications of program requirements in the major field. There are a number of ways to represent these requirements, e.g. catalogue statements of objectives in the major, a Tuning-type disciplinary qualifications framework statement (preferred), a listing of credit distributions by sub-field/cognate fields in the major, etc. If internships and/or theses and/or comprehensive examinations are required, this is where to indicate those facts.

7) Markers of student achievement, curricular and co-curricular. This is a substitute for the European Diploma Supplement's "additional information" section and is the most individualized section of the suggested U.S. version. What do we include?

7.1) Any compressed signals of superior academic performance, e.g. Phi Beta Kappa, graduation with honors, number of times on Dean's List.

7.2) Title and short description of student's thesis or final degree-qualifying project, exhibit, or performance, if applicable.

7.3) Any external certification examinations passed or licenses granted to the student. While the institution is not the awarding body in these cases, the institution certifies that it has recognized and recorded them.

7.4) A maximum of two noteworthy and documented services performed by the student for either the institution, its surrounding community, and/or its extended commitments.

7.5) Student research, creative, or service participation, if applicable. Field, title of project, and faculty sponsor. The key to validation for this entry is the faculty sponsor.

7.6) Documented proficiency in languages other than English. Indicate language(s) and method of documentation.

An undergraduate transcript presents none of this information. While a necessary record and, when records are aggregated, an indisputable unobtrusive source of evidence of student attendance patterns, course-taking, and attainment, it is an arcane document, and is read

carefully, if at all, only by admissions committees to graduate programs (or, in the case of community college students, by transfer officers).¹³³ Nothing else students currently receive on earning a degree reflects the status (that does not mean “ranking”) of the institution, its own sense of the meaning and purpose of the degrees it awards, or the nature and requirements of the degree program completed. A Diploma Supplement of the form suggested shows the public the force with which the institution and its departments live by their stated mission, and what stands behind the student. As for the relationship between the student’s history and the institution’s integrity, all of the information suggested above can be validated with a seal of institutional authority, e.g. by the Chief Academic Officer.

Is the development of a Diploma Supplement of whatever form, whether by individual institutions (private as well as public), consortia, or state systems a lot of work? Are these documents worth the effort? We cited the case of the Australian adoption of the idea, though in a different form than that used across Bologna-participating countries. Based on the learning from that first trial of the idea (Australian Education International 2006), the Australian Department of Education, Science, and Training drafted three potential templates,¹³⁴ and after a substantial pilot, produced a final format and content specifications, with recommendations for linking data systems and establishing data security, closing gaps in records, handling of double-degrees, and estimates of workload and costs.¹³⁵ Estimated time from first inquiries to implementation: 8 years. In academic time, that’s a hands’ breadth, and Australia will not be the last national system outside Europe to take the Diploma Supplement very seriously. There must be a reason, and perhaps we ought to listen.

What can the accountability discussion learn from the degree Qualifications Frameworks of Bologna?

Once Tuning or its analogues are in process at the level of the disciplines, once Diploma Supplements with indelible markers of institutional standards and validated student attainment have begun to make their appearance, degree qualifications frameworks will inevitably follow, though not without more hard work. But we have models in both the Dublin Descriptors and in the completed National Qualifications Frameworks of a number of European systems (however different in shape and nuance). It is suggested, first, that we study and reflect on the objectives, form, and language of these models, and then to follow the following:

¹³³In a survey of employers conducted for the Association of American Colleges and Universities, only 29 percent found transcripts useful for evaluating applicants for positions (Peter D. Hart & Associates 2008, p. 4).

¹³⁴Available at <http://aei.dest.gov.au/AEI/GovernmentActivities/DiplomaSupplement/default.htm>

¹³⁵See <http://www.une.edu.au/chemp/projects/dipsup/index.php>

Our states, which govern and finance institutions of higher education attended by 80 percent of U.S. students, should develop statewide qualification frameworks using the upward ratcheting scaffolding in stated core learning outcomes for our “short-cycle” Associate’s, Bachelor’s, and Master’s degrees. These statements are generic and not discipline-specific, hence the language of presentation should anticipate subsequent program versions in the arts and applied technical and human service fields, along with the traditional academic fields in the humanities, sciences, social sciences, and technology. If Missouri or Nevada says that these credentials are awarded to students whose performance matches the learning outcome descriptors, you can be sure that community colleges, colleges, and universities in those state systems will make it happen. Private institutions may also choose to buy in.

Some states might use the occasion to “go comprehensive” and vertical in the Irish-Scottish style, building on state standards for K–12 systems that are already in place. Some states might take the Dutch approach and reference labor market roles and tasks associated with different degree levels, and to distinguish qualification frameworks for arts and sciences programs from those of applied arts and applied science programs. There are obviously a number of options for the shape of qualifications frameworks. But if two or three states took on the task, the rest will ultimately join to create a U.S. version of a zone of mutual trust, and, in the process, link ourselves and our students to the ever-expanding world of trust emerging from the Bologna Process. This is not an easy task. It requires broad consultation and participation of the higher education community—from all sectors, and all stakeholders (faculty, students, recent graduates, administrators, and employers—the same groups involved in the Tuning consultations). As our European colleagues have adequately demonstrated, it doesn’t happen overnight. It’s a decade’s work.

To get a sense of the task, one might begin by taking each one of the “essential learning outcomes” listed by the Liberal Education and America’s Promise (LEAP) project of the Association of American Colleges and Universities¹³⁶ and turning it into an operational outcome statement. To simply list “information literacy,” for example, as an “essential learning outcome” says nothing until one adds (a) what “information literacy” means, (b) what, precisely, a student will *demonstrate* to evidence mastery of a threshold level of “information literacy,” and (c) to agree that that threshold demonstration is one of the qualifications for earning a degree at the level in question (Associate’s, Bachelor’s, or Master’s). How each institution brings its students to that level and how it assesses the demonstration is up to the institution. What specifics each

¹³⁶ Available at www.aacu.org/leap/vision.cfm

institution adds to the construct is a matter for each institution to determine for itself and its students. To add, as does the LEAP summary, that information literacy will be “practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance” is a promising start, but is directed to the institution and faculty, not to the student—nor to a commitment to a criterion for awarding the degree. Again, if a state system or institutional consortium team took all the “outcomes” on the LEAP list and wrote them in criterion-referenced terms, one would have a qualifications framework worth its name.

Some might ask, “Why should we adopt the Europeans’ very generalized qualification frameworks? The differences from one degree level to the next are minor and just matters of nuance.” Response: the questioner has obviously read and reflected on what the Bologna Process wrought, and that, in itself, is evidence of step one in the point of this recommendation. The suggestion is not to adopt; rather to study what others have done, and perhaps come up with a version that, to follow the gist of the question, might offer *stronger* distinctions between degree levels than what one reads in the Dublin Descriptors—two or three turns of the ratchet instead of what is perceived as one turn. Pooh-poohing the construct of qualification frameworks is not constructive; engaging with it is.

Suggestions for a Credit Revolution in U.S. Higher Education: What We Can Learn from the Bologna Experience with ECTS

The U.S. credit currency, based principally on faculty contact hours (along with varying assumptions about student study-time per faculty contact hour), is a metric designed for funding and resource allocation, not as a proxy for learning. Its engine lies in the office of the Vice President for Finance, not the office of the Vice President for Academic Affairs. The student is incidental. Even in the matter of time, the same faculty load serves considerable differences in student work load. Something is wrong here. If we care about accountability for student learning, perhaps we need a redesign. Perhaps the Bologna experience might help us.

Before one redesigns a credit system, one needs some definitions, principles, and guidelines. The mechanical implementation of ECTS doesn’t really do it. Credit should define levels of student work (time volume and intellectual demand) that render courses in different disciplines comparable. In a way, the U.S. system tries to do that now by giving an extra credit for science labs or language labs or by heavier credit weighting of externships. But we do so in a rather arbitrary fashion, and wind up awarding the same number of credits for course work of widely varying intellectual demand. We give three credits for a course in Econometrics and three for Introduction to Sports, and brush such dissonances under the rug. This observation is not new.

As the federal study group that wrote the last “commission report” on American Higher Education in 1984¹³⁷ observed,

“Credits . . . do not indicate the academic worth of course content. In too many instances, quality control in the assignment of credits to courses is problematic. For example, in some colleges students can earn the same number of credits for taking a course in family food management or automobile ownership as for taking a course in the history of the American city or neuropsychology.” (p. 13)

For all its concerns with accountability, the more recent report of the Spellings Commission on the Future of Higher Education did not deal with this core quality assurance issue—and that’s what it is. If we want credits to be meaningful and indisputable in the context of transfer or for recognition of prior learning, we need consensus on student workload formulas and level descriptors together. It’s not perfect, but it’s a start.

A credit system established this way recognizes a wide range of course work types, along with learning in non-formal settings . For example, someone can come to a community college or university from industry seeking credit in Web site design, but with no experience in programming the graphics that are part of the design, whereas students in your Web site design course not only face a pre-requisite of demonstrable fluency in Java 2, but actual utilization of those programming skills in course team projects. Both students may receive the same number of credits, but at different levels. The author would also argue that constructing credit qualifications as a function of both time and challenge will mitigate a lot of the arguments over transferability of credit. That is, even before considering student performance as reflected in a grade, an institution that has established clear criteria for credits and level of a particular subject is in a stronger position to judge whether it will accept another institution’s credits in that subject at that level—or at another level. U.S. credits, as currently determined and granted, provide no such clarity. Increasingly—though not uniformly—European credits do. It is comparatively easy for Bologna participants to translate an IT certification earned outside the formal higher education sector to credits: they can defend their decision with estimates of student work load, determination of complexity and depth of knowledge, and range of application of that knowledge in the IT environment.

To re-do the credit system in the United States along the lines of ECTS, with student workload as the primary reference point, would be an undertaking of considerable magnitude. Every academic department in every institution on a credit system would be required to work through calculations of estimated workload for the average student in every course offering, a daunting

¹³⁷Study Group on the Conditions of Excellence in American Higher Education 1984. *Involvement in Learning: Realizing the Potential of American Higher Education*. Washington, DC: U.S. Department of Education.

task. After all, how many faculty in the U.S. have ever picked up the readings they assign and actually read them, taking notes, with a clock at their side, and adjusting their reading time as experts to what they imagine the average student's time would total? How many of them have written up a laboratory exercise with a clock at their side, going through the same adjustment of expert to novice time? Within an individual course, information retrieval, reading, writing, presenting, practicing, field observation, laboratory set-up, etc. all can be clocked. Consensus on the number of hours estimated to study for a final exam or prepare an art exhibit or conduct field observations or execute laboratory assignments would have to be reached. Registrars' records and computer systems would require reprogramming and conversion algorithms. Credit-based tuition and fee formulas would require reconceptualization and adjustment. If everybody started down this path tomorrow, we wouldn't finish for two decades. And then it the new credit system would have to come on stream at a date certain. Memories of Y2K!

But that's exactly what the Europeans committed to doing under Bologna. Some of them have done it; others are in process; and still others will join. The reason? It is a student-centered accounting system that imperceptibly impels faculty to reflect on what they are teaching, what students are assumed to be learning and how, and, as a consequence, make adjustments to both curriculum and its delivery that are long overdue.

This essay acknowledges that we are *not* going to change our core credit/finance accounting system link. We are not going to alter our system in such a way as to require recalculation of credits on student records going back a half century or more. Yet there is no question we can make some critical adjustments that will make more sense to future students and, in the process, demonstrate that U.S. higher education is committed to an honest assessment of the distribution of knowledge and skills, to quality assurance, and to transparency. How?

A) Once again, state public systems have to take the lead. Private institutions can buy in at their discretion, individually or in consortia.

B) The credit system should be supplemented by an indication of the level of cognitive and skill demand of each course. This indication requires. . .

B1) A state system or consortial qualifications framework (as advocated above), and

B2) The development of "credit-level" descriptors analogous to those described in Section 5.2 above

C) No matter how an institution numbers its courses, each course would carry a public marker of "credit-level," and this marker indicated on students' transcripts;

D) Qualification frameworks at the level of field or discipline then would set minimum distributions of credits required at each level in order to earn a degree, e.g. 40 percent at level 4, 60 percent at levels 3 and 4, etc.

E) For *purposes of student advisement*, faculty should be asked to present an analysis of student work load in terms of the learning tasks and assignments for each course. U.S. faculty may regard this analysis to be tedious. It is, but it isn't trite. While this undertaking *may* result in curricular modifications, its purpose is to render faculty more responsible academic advisors. They would be able to hold students back from overload with courses whose time demands for real learning exceed the number of hours in a waking week, or, conversely, pointing out how to fill discretionary time with more efficient learning. They might even instruct policymakers of the "get-it-over-with-and-get-it-over-with-fast" school who also express concern with the quality of student learning that when time is tight, superficial learning is the outcome.

Will this approach work if one state system does it and others do not? If the first state sticks by its guns, everyone else will follow because the first state will give its students incredible global mobility, both pre- and post- graduation. That state system's credits will be recognized in at least 46 other countries. That state will also have opened up more flexible paths for adults returning to higher education through the recognition of prior learning in non-formal settings. It is all worth considerable thought.

13.2 Beyond the Accountability Loop: "Access and Success" in U.S. Higher Education

While the principal story line in this monograph plays out in the string of Bologna core action lines involving Qualification Frameworks—Tuning—ECTS—Diploma Supplement—Quality Assurance, there is a second powerful story line, one that addresses the concerns of U.S. policy-makers with a broader and more successful participation, but that story emerges from completely different directions than those we customarily use in our discourse of "access and success." Diagonal planes, cutting through a pyramid of slogans, cast new lights for us.

What we learn from looking outside the United States at the intersection between degree cycles and increasing access, participation, and ultimate attainment in the Bologna Process universe we *could* learn from looking within, but for some strange reason, don't.

Better Mechanisms for Targeting and Engaging Low-Participation Populations

Let's start with common-sense. We consistently complain about lower "access" and (more accurately) participation rates of minority and low-income students in higher education. In doing so, we make no distinctions by geodemographic factors, although our reflex target seems to be

“urban.” Such broad brush labels do not help us know where to drive when we get in our cars to go out and fix a problem. What our European colleagues can teach us under the social dimension of Bologna is to use geocoding in fairly sophisticated ways. If, for example, we looked at participation rates by zip codes, housing stock within zip codes, and population density within zip codes, we will probably find that rural, isolated populations have far lower participation rates than urban populations (in fact, students who graduate from urban high schools evidence higher college attendance rates than those who graduate from rural high schools; after all, when there is a MacDonald’s on every corner, you are bound to have a Big Mac sometime). And when we examine the geo-demographics of those isolated rural populations, we will find ourselves in the arroyo seccos of New Mexico, the Mississippi delta, the central valley of California, the northwest counties of Minnesota—and guess who lives in such places? A lot of low-income minority students. At least we know where to drive the car, what to look for in the secondary schools serving those areas in terms of opportunity to learn, and can get to work in specific zip codes.

Across all the social dimension features of Bologna degree cycles is a clear mandate to demonstrate to current and prospective students the multiple paths and choices available to them. The links between degree paths in some national systems “are sometimes not very transparent” and information outreach to secondary school students is not easy, reflected Mario Ahues of the Jean Monnet University in St-Etienne, France, because “teenagers really can’t follow the complex connections.” But one of the better avenues for outreach is through on-line cases for a My Space generation. Doubt it? Log on to the Scottish Credit and Qualifications Framework, www.scqf.org.uk, click on “Learners,” and read through the portraits of students currently enrolled in colleges and universities, students seeking reskilling, and students returning to education. By recounting the ways in which they arrived in higher education, all of these portraits provide encouraging guidance. No, as Aileen Ponton of the SCQF advises, the on-line portraits “will not solve problems in access and participation” by themselves, but the experience of walking through them should inspire state higher education offices in this country to duplication.

What Bachelor’s degree? It’s now the Master’s.

Next stop: the Master’s degree. Prediction: the Master’s will become the preferred exit point for “undergraduate” education in virtually all fields, academic and occupationally-oriented, across the Bologna universe. The drivers are (a) student perception of potential chances and stability in subsequent employment, and (b) that in the repackaging of the old long degrees to a 3 + 2 sequence, the new combination is seen by students as the same as the old single degree. But labels count in a world without borders. If European students come to present themselves in a global labor market with Master’s degrees, our students will be impelled to join them. We have been focusing so hard on Bachelor’s degree completion—and Bachelor’s degrees for historically low-participating populations (minority and low-income)—that we fail to anticipate its extension.

Our rhetoric of college “access and success” has to ratchet up its ante to the Master’s level, and percolate down to the level of Gear Up, Know How to Go and other information, encouragement, and preparation programs in the middle and secondary school years. U.S. students, no less than others, must not only “think college!” and “think 1st cycle!”, but also “think 2nd cycle!” That means, too, that every discipline—from chemistry to history to nursing to communication—has to rethink its undergraduate presentation as if there were an inevitable extension, as if the award of the Bachelor’s degree were not a censoring event. Disciplines with foresight, creativity, and aggressive marketing smarts will also create bridge programs for students changing fields from the first cycle to the second. That means intense one-term periods in which students entering a Master’s program from a different field at the Bachelor’s level fill in the critical undergraduate core of the Master’s field so that they have the momentum to succeed. In this manner, too, we will join the “convergence club” trajectory. In 20 years, it will be the only game on the planet.

A Change for Our Short-Cycle Degree

The third lesson is about our short-cycle degree, the Associate’s. The Bologna Process includes short-cycles as *part of* the first cycle, and the effects have been both to expand the universe of short-cycle offerings and to sharpen the routes from existing short-cycle degree programs to the Bachelor’s. Virtually all of the European short-cycle programs are occupationally-oriented, i.e. like our A.A.S. (Associate of Applied Science) degrees, but conceived as within the first cycle, they lead to occupationally-oriented Bachelor’s degrees in the same fields, and with no arguments about articulation and transfer because both degree programs are offered by the same institutions. It is no wonder that completion and continuation rates for the Foundation degrees in the UK, for example, are as high as we have shown.

We in the United States have an analogous opportunity, one that includes not only the A.A.S. degrees, but also extends to our Associate of Arts and Associate of Science degree programs. It means a radical expansion of the “Alliance Agreement” models one finds in the Maryland system, for example (and there are other programs like it), under which entering students are admitted to both the community college and the Bachelor’s degree granting institution simultaneously, are coached through both a period of habilitation to higher education, all the “gateway” courses, and at least the foundation courses of a major while they are in the community college (having access to all the facilities and services of the four-year college during this period), then moving over to the Bachelor’s degree-granting institution at whatever the Alliance Agreement has established as a minimum credit and performance threshold (including award of the Associate’s

degree). If the student in an A.A.S. program at the community college, e.g. Medical Technology, moves into the same or a cognate field in the four-year college, there then should be no articulation or credit transfer problems.¹³⁸

And if degree qualifications frameworks are established as suggested above, along with bridging portions of an alliance tied to learning outcomes (see p. 55 above), there will be even less reason to quarrel about credit transfer. There are occupational fields in which community colleges are awarding A.A.S. degrees, of course, in which criteria for Bachelor's degrees could not be written, e.g. HVAC (heating, ventilating, and air conditioning). These are cases in which the highest credential offered should be a certificate, not a degree. There is nothing wrong with that, nor with the corresponding reform of our short-cycle credentials that these distinctions clearly imply. We would obtain greater transparency, and clarify our accountability lines in the process.

And while we would not recommend as elaborate a ladder of intermediate credentials as one finds in the Scottish Qualifications, U.S. higher education might think very seriously about establishing a qualifying diploma at a point in undergraduate study at which all Bachelor's degree requirements except upper division course work and final comprehensive exams, theses, or capstone projects have been completed. Such a credential, like the Swedish diploma, would lock in attainment at approximately two-thirds of the way toward the Bachelor's. Students who, for one reason or another, leave the system after that point would not leave empty handed, and could more easily move back into the concluding portion of their degree programs at a later point in life without arguments over the age of their credits. As the QAA's self-certification of the UK Qualifications Framework defines such credentials, "though they are at the level of the relevant cycle they are not **end of cycle** qualifications" (QAA 2009, p. 4). Intermediate-level credentials are markers of progress, not consolation prizes, and carry content and performance criteria that go beyond the mere accumulation of credits. The Swedish Diploma does require 120 (out of 180) credits, but it also specifies both composition of study program and (more importantly) the type of summative assessment required of the student. The UK's intermediate credentials at the level of the Bachelor's degree (graduate diplomas, graduate certificates) involve a formal closure. There are options here for U.S. higher education to ponder.

¹³⁸The author would also argue that, at the same time, the matching Bachelor's degree should be retitled as a "Bachelor of Applied Science" or a "Bachelor of Applied Arts" (depending on field) because that is what it is. There nothing wrong with or "lesser" about that label: it is an honest and transparent reflection of reality.

Time to Treat Part-Time Students Better

The third set of suggestions for U.S. higher education following the access-and-success story line concerns our treatment of part-time undergraduate students. In this territory, what we learn from the Europeans is like looking through a mirror darkly. What we see is an unhappy paradox. To repeat: on the one hand, the U.S. higher education system could not achieve the degree of walking-through-the-door access we have achieved if we did not have long-standing provisions for part-time study, and under the “social dimension” clauses of Bologna, some (but not all) European systems are expanding part-time provision for similar reasons, and using e-Learning as one of its key environments. On the other hand, our public policies do not work to enhance the potential success of part-time students, and we are brought to this realization when we observe countries in Europe where full-time students are not charged tuition but part-time students pay. Technically, U.S. students are eligible for federal grants with as little as one additive credit of enrollment (though it’s not likely you will meet somebody who has a Pell grant at that level), but they are not eligible for federal loans at any level of effort that is less than “half time” (the definition of which is highly variable). At state and institutional levels, U.S. part-time students face fees for discrete campus services (e.g. student activities, health, counseling, laboratory, technology) that they do not use and that, in some systems (e.g. the California community colleges) easily exceed the price tag of tuition.

Federal financial aid policy in the U.S. should seriously consider allowing non-additive credits (for remedial work) to count toward a realistic intent-to-continue threshold of more than six credits in the student’s first year but not in subsequent years, i.e. provide a clear carrot to students for getting through remediation early. This is one mode of treating some of our part-time students better than we do now.

We might be even more creative, and develop a U.S. version of the Swedish *kursstudenter* or the University of Aberdeen’s allowance for part-time status under which students agree to enter and remain part-time as a set level (e.g. 8 to 10 credits per term) *but continuously enrolled*, in exchange for which they get a tuition discount or fee waivers. This proposition is obviously for individual institutions or state systems to consider, but think of what it does: it creates a predictable cohort that renders enrollment management and academic planning so much easier than the chaos of nomadic and discontinuous enrollment behavior we witness now.

At the institutional level, both public and not-for-profit private colleges should be willing to take on more students in part-time status, with realistic assessment of their ability to carry full-time loads in light of other life responsibilities (our for-profit institutions already do this in volume). If students hold full-time jobs or are

responsible for the care of either infants or parents, institutions should refuse to register them as full-time because their chances of successful performance are constricted. There is nothing wrong with this situation: that's the way life is. We are not doing these students any favors by deluding them into thinking they can handle 80-hour weeks without stress. And if we want more learning and higher degree completion rates, this is a serious advisement option.

Most of all, our public policies and rhetoric must back off from the “get it over with and get it over with fast” punitive tones and actions (e.g. charging higher tuition for students who take longer than X years to complete a degree) one finds in too many state legislatures. Part-time students become second class citizens under these blind assaults. By definition, they will not complete degrees on the same time frame as full-time students, but we risk their not completing *at all* if our policies have no respect for the reasons they are part-time and no respect for their persistence.

We have said it before in this essay: no institution or system of higher education committed to student success can responsibly overload students with credit obligations that they cannot possibly fulfill; no advisement can responsibly push people from part-time to full-time status without sacrificing learning. Ask what is more important to students and their families: the fact of completing a degree or how long it took to do so. Ask what is more important to an economy and society: the piece of paper or the quality of demonstrable knowledge and skills the graduate brings into the labor market and the social order. The answer to both questions is, in contemporary parlance, a no-brainer, and one which the European Students Union wisely offered in rejecting elapsed time-to-degree as a policy objective.

Expanding and Standardizing the Recognition of Prior Learning

Lastly, we took up Recognition of Prior Learning within the context of both expanding access and connecting the validation of learning acquired in both non-formal and informal settings to credentialing. The European experience of RPL evidences both success and potential to the extent to which it is occupationally-oriented and workplace-based. It is much easier—and less contentious—for a jury to reach consensus on requisite knowledge, skill, and the mode and quality of their demonstration, easier—and less contentious—to create a dossier of qualifying evidence if the exercise of an occupation is the source and reference point. The more transparent the workplace connection, the easier, in fact, to assemble a jury for assessment of that dossier.

In a U.S. postsecondary context, this feature of RPL falls clearly in the workforce development mission of community colleges more than anywhere else. One hesitates to add missions to the community college portfolio, but workforce development is not an addition. What we can suggest to community colleges is

the development of (a) standardized RPL processes that treat issues of dossier preparation, jury selection and review, and award of credits, exemptions, and (as in the French VAE) entire credentials, and (b) centers devoted to these activities and to outreach to adult workers in targeted local occupational clusters. Such an effort would enhance our own “social dimensions” objectives in expanding access as well as connecting this walking-through-the-door mode of access to our short-cycle degree programs.

13.3 Summary of “Constructive Irritations”

What is the essence of the argument in the above set of “constructive irritations” to U.S. higher education? Most of all, that the development of road signs in qualification frameworks and Tuning, revisions of the way our credit currency is weighted and its integrity advanced, and meaningful public documentation of learning—all of which have been demonstrated by the Bologna Process—would have a reconstructive effect on state systems and individual institutions in the United States. Some of our colleges and universities will say that they already have degree qualification statements that read like those developed in Europe, some will say that they differentiate levels of credits by the degree of challenge in courses, some will point to their bridge programs linking Associate’s and Bachelor’s degrees or linking Bachelor’s and Master’s programs, some will say that they engage in efficient processes of recognition of prior learning. We certainly can point to points of exemplary practice. But we do not engage in these exemplary practices systematically, and we do not engage in them to scale.

The author trusts that U.S. readers recognize what hard work and sustained effort going to scale with systemic reform involves, but hopes they can be inspired to do so by European colleagues and European students who have been at it for a decade. Those colleagues and students have formulated, tested, stumbled, reformulated, refined, expanded. They have discovered discontinuities and dissonances, and have sought to repair them. They have learned what they do well, and what they can do better. They know where they are leading, and where they are lagging. And they have done all this across 23 major languages and 46 major traditions with all their idiosyncrasies, moving from differentiation to agreement. In the meantime, nations outside “the Bologna Process 46” have studied and begun to adapt some of the core features of the European reconstruction. They do so not to imitate, but to improve within their own traditions. In so doing, they link themselves to an emerging paradigm where the smart money is on cooperation and conversation. The “convergence club” grows every year, and we in the United States are starting to join. It is not such a bad idea.

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Appendix A: Our European Colleagues; Our Translation Assistance

The following individuals gave generously of their time and expertise in direct interviews, presence and questionings in group discussions, e-mail interviews and exchanges, guidance, and/or provision of documents and information that expanded the author's understanding and appreciation of the many dimensions of both national higher education systems and the unfolding of the Bologna Process in their respective countries. It is hoped that this essay has done justice to their wisdom and confidence. Affiliations at the time of interview or assistance are noted.

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Appendix C

Institutions/Systems from Which Diploma Supplements Were Received and Examined

<u>Institution</u>	<u>Country</u>	<u>Language(s) of Supplement</u>	<u>Level/Degree</u>	<u>Field</u>
Fachhochschule Krems	Austria	German English	Magister (FH)	Export-Oriented Management
University of Vienna	Austria	German English	<i>Bakkalaurea der Philosophie</i>	Journalism and Communication
University of Vienna	Austria	German English	<i>Magister der Naturwissenschaften</i>	Sports Science
Suhr's Seminarium	Denmark	English	Bachelor	Nutrition and Health
Danmarks Paedagogiske Universitet	Denmark	English	Master of Arts	Education
Univ. of Southern Denmark	Denmark	Danish English	M.A.	International Business and Modern Langs.
Ingeniørhøjskolen e Odense Teknikum	Denmark	English	Engineering	Civil Engineering Diploma
ICN Ecole de Management*	France	French	Grade Master	Management
[G.W.] Leibniz Universität*	Germany	English	Master of Sci	Mechanical engineering
Hochschule Karlsruhe	Germany	English	<i>Diplom</i>	Computer Science
Otto-Friedrich Univ. of Bamberg	Germany	German English	<i>Diplom</i>	Sociology

<u>Institution</u>	<u>Country</u>	<u>Language(s) of Supplement</u>	<u>Level/Degree</u>	<u>Field</u>
Rijksuniversiteit Groningen	Netherlands	English	Bachelor's	Communication and Information Studies
Rijksuniversiteit Groningen	Netherlands	English	Master of Arts	English Language and Culture
Instituto Politécnico de Setubal	Portugal	Portuguese	<i>Licenciatura</i>	Communication
Universidade da Beira Interior	Portugal	Portuguese	<i>Licenciatura</i>	Management
Instituto Politécnico do Porto	Portugal	English	<i>Licenciatura</i>	Theater
Universidade do Minho	Portugal	English	<i>Licenciatura</i>	Biological Engineering
Academy of Economic Studies	Romania	Romanian English	Bachelor	International Business
Universitatea din Craiova*	Romania	Romanian English	Master	Physics
Univerza v Ljubljani	Slovenia	English	Doktor Medicine	Medicine
Univerza v Mariboru	Slovenia	Slovenian English	Master	Electrical engineering
Danshögskolan	Sweden	Swedish English	University Diploma	Dance Education
Université de Lausanne	Switzerland	French English	Bachelor of Sci	Biology

<u>Institution</u>	<u>Country</u>	<u>Language(s) of Supplement</u>	<u>Level/Degree</u>	<u>Field</u>
Université de Lausanne	Switzerland	French	<i>Licence en sciences économiques</i>	Actuarial Science
Université de Lausanne	Switzerland	French	<i>Licence</i>	Psychology
Université de Lausanne	Switzerland	French	<i>Licence</i>	Geography and History of Religion
Université de Lausanne	Switzerland	French English	Bachelor of Theology	Theology
Université de Lausanne	Switzerland	French English	Bachelor of Science	Geosciences and Environment
University of Nottingham	United Kingdom	English	Honors Bachelor	Environmental Biology
<u>System</u>				
Belgium (Flemish Community)		English	Generic (all levels, all fields)	
Poland		English	Generic (all levels, all fields)	
Spain*		Spanish	Generic (all levels, all fields)	

*Provided on the Web site of the European Commission as examples.