

eParticipation that works

Evidence from the old Europe

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Abstract: *This paper collects some evidence from a now completed EU-funded project, aimed at the localisation and institutionalisation of two eParticipatory tools, DEMOS-Plan and the Electronic Town Meeting, within real public administration processes. The independent or combined usage of the two tools, supported by the Living Labs approach has been tested in 18 local pilots across several regions of Europe, from Ulster (UK) to Sicily and Tuscany (Italy), from Turku Archipelago (Finland) to Voroklini (Cyprus). Selected policy domains include (among others): Spatial Planning, Socio-Economic Programming, Strategic Environmental Assessment, and Open Government. Deployment has led to a number of interesting implications for the European public authorities, such as: i) building up of a cost effective ICT platform that enables regular or occasional consultation of remotely and sparsely located citizens and stakeholders; ii) gradually migrating the whole administrative system related to spatial data infrastructure towards a full digitalisation of the “legally compulsory” exchanges between planning agencies, local stakeholders and the general public; and iii) setting the stage for these two facilities to become practically interoperable to each other and across different EU Member States.*

Keywords: eParticipation, Spatial Planning, Strategic Environmental Assessment, Electronic Town Meeting, DEMOS-Plan

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Among the many lessons learnt from the eParticipation Preparatory Action projects funded by the European Commission in 2007-2009 one is particularly relevant, which refers to the long-term sustainability of the undergone trials: namely, a permanent adoption of electronic tools for civic participation by the public sector organisations involved in the testbeds or showcases is more likely to occur when there is a convincing business model showing up financial savings or at least organisational advantages in a clear way. For instance, the MOMENTUM Coordination Action, commenting on the first two project “waves”, concluded its White Paper by highlighting “*that the eParticipation research field would need some coordinated steering, so that the same experiments are not revisited, sometimes overlooking developments in relevant projects. This also involves the synchronised interaction with stakeholders at various levels (local councils, national or European Parliaments), so that a coherent message is conveyed to the decision makers but also to the final users*” (Charalabidis et al., 2008). Very few examples exist at the moment – mostly from the UK (Ferro and Molinari 2009, p. 7) – where the support of “business case builders” helps governments decide whether to undertake investments on eParticipation solutions or not. This paper makes the point that a necessary precondition for any business model to “square” is the formal integration of (non-electronic) participation in the legal or regulatory framework the targeted organisation belongs to (Colombo et al., 2011). This is particularly the case of environmental assessment (at strategic level) and spatial planning (at operational level), where EU Directives and/or National legislations exist that establish participation as a compulsory requirement for a great deal of policy processes and administrative procedures – mostly involving Regional and City councils (Concilio and Molinari, 2011). The following picture, taken from the MOMENTUM website,

testifies how 9 out of the 20 Preparatory Action projects actually dealt with the topic of environment as their core discussion theme.

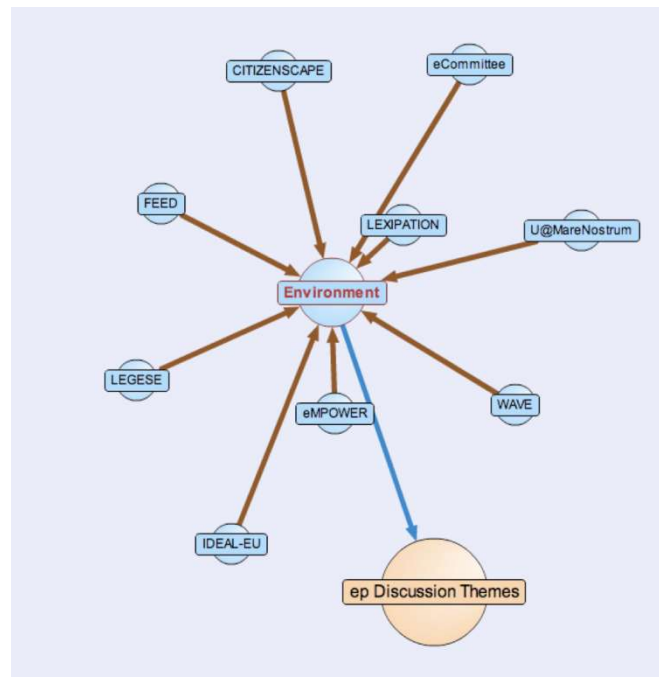


Figure 1: Environment as an eParticipation Discussion Theme (from: <http://www.ep-momentum.eu>)

The structure of this paper is as follows: Section 1 explores the commonalities of the EU and Member States legal framework under the perspective of spatial planning and participation, including the Territorial Agenda, the ESDP (European Spatial Development Perspective) and the SEA (Strategic Environmental Assessment) vision and key principles. Section 2 overviews two successful antecedents of participation in Germany and in Italy, while Section 3 briefly describes the two technology tools that have been deployed in PARTERRE – a EU funded project belonging to the CIP (ICT-PSP) eParticipation cluster. Section 4 presents some evidence from the pilots held between June 2011 and April 2012 in six EU regions, including Tuscany (IT), Hamburg (DE), Ulster (UK), Sicily (IT), Turku (FI) and Larnaca (CY). Section 5 discusses the results and finally Section 6 concludes the paper by drawing some preliminary lessons from the work done so far.

1. Legal Framework

In all EU countries, participation in spatial planning is a compulsory legal requirement. Most laws on regional and urban planning require some degree of civic consultation prior to final decisions, because all spatial plans concern and possibly affect a variety of stakeholders, who often hold conflicting interests. These include for instance, other administrative units of the same government entity or different public sector agencies that have to be mandatorily consulted, whenever key aspects like nature conservation, protection of historical monuments, or the supply of services of economic interest – such as utilities and transport – are concerned. Quite often, representatives of the civil society (such as environmental NGOs) have to be consulted as well. Finally, most laws on regional and urban planning provide for consultation of the general public too. At some stage of the process, citizens must be formally invited to formulate their concerns or objections to the spatial plans, and the deliberative council is obliged to consider these arguments and discuss them in public meetings. In case of rejection, there are additional rights of appeal to the administrative

courts. On the other hand, if some urban planning decisions are taken without these formal stages of participation, courts may annul them.

These common traits are preserved across the five categories of European planning systems that were first identified by Newman and Thornley (1996) as a reflection of country level differences in political and social histories, economic conditions, traditions of law and governance, land tenure, resource endowments etc. (see next Table).

Table 1: Legal Frameworks of Spatial Planning in Europe

	British Family (CY; IE; MT; UK...)	Napoleonic Family (BE; FR; IT; LU; NE; PT; SP...)	Germanic Family (AT; CH; DE; SL...)	East European Family (CZ; HU; PL; SK...)	Scandinavian Family (DK; FI; IS; NO; SE...)
National Tier	Framework Legislation on Spatial Planning Reception of EU Directives (for MS) SEA on big projects				
	Direction of local planning	(FR: Direction of local planning)			
Regional Tier		Legislation (not FR)	Legislation	Planning and/or Development	
	Development	Planning	Planning		Planning
Local Tier	Master Plan Deliberation / Amendment / Implementation SEA on small projects				
	Development				

Another important playground for cooperation between governments and stakeholders in the area of spatial planning is the *Territorial Agenda of the European Union*, as agreed on the occasion of the Informal Meeting on Urban Development and Territorial Cohesion held in Leipzig on 24-25 May 2007, during the German Presidency of the EU. The Territorial Agenda is a policy framework set forth by the Ministers responsible for spatial planning and development, jointly with the European Commission. It aims to support the implementation of the Lisbon and the Gothenburg strategies (now integrated into the DAE, Digital Agenda for Europe) as complementary ways to approach the construction of a truly original European model of sustainable development and social progress, based on strengthening the territorial cohesion of EU cities and regions.

The concept of territorial cohesion builds upon the ESDP – *European Spatial Development Perspective* – which was agreed at the informal Ministerial meeting of Potsdam, on 10-11 May 1999, as well as the Guiding Principles for Sustainable Spatial Development of the European Continent, approved at the 12th session of the European Conference of Ministers Responsible for Regional Planning, held in Hannover, on 7-8 September 2000. These policy documents add to the concept of economic and social cohesion by translating the fundamental EU goal of a balanced and sustainable development into a territorial setting.

The logic of territorial development policies is that economic growth is partly based on the organisation of space. This in turn is shaped by a range of policies at all levels of government, as well as by a number of social trends, technological developments and market forces. Some of the mainstream “vertical” (economic or sectorial) policies may have unintended spatial impacts, which can compromise territorial development. Policies with a territorial focus, not only counteract these effects, but most crucially add more value by integrating the economic, social and environmental dimensions at cross-sectorial (“horizontal”, or transversal) and “place-based” levels (Barca, 2009).

Another important element in the EU Territorial Agenda is the cooperation of various sectors of activity and levels of governance, such as public private partnerships and stakeholders from civil

society and third sector organisations, which taken together, play an important role in growth and development processes. Thus, territorial development policies are also an important instrument for strengthening the social capital of targeted communities.

In practical terms, this means:

- To focus regional and national development policies on better exploiting the potential of Europe's geographical and cultural diversity as social capital;
- To promote trans-European synergies, cooperation and clusters of competitive and innovative activities, also respecting the conservation of natural and environmental assets;
- To support the coherence of EU policies having a territorial impact (e.g. transport corridors, natural interest zones etc.);
- And – most important for our considerations – to introduce or reinforce participatory processes at all levels of planning.

As its main instruments, the ESDP identified two tools, both in the active sphere of the ERDF – the European Regional Development Fund. The first is ESPON, the European Spatial Planning Observation Network (www.espon.eu), which mainly connects clusters of University Planning Departments at Member State level and has established the link between the ESDP and national planning priorities. ESPON is, however, a mere Observatory; it does not intervene in planning decisions. The second tool was the INTERREG III programme (2000-2006), which has been in large part utilised to create a link between the EU-wide principles expressed in the ESDP and the actual planning instruments and procedures that take place on the regional level downwards. Here, significant work and exchange of experience has taken place that directly influenced the planning processes throughout Europe.

As the range of experiences in INTERREG III projects demonstrated, a number of planning tools and instruments can be used as entry points for the introduction of ICT-based services to improve the efficiency and effectiveness of the participatory processes. One instrument however stands out as particularly appropriate for experimentation: the *Strategic Environmental Assessment (SEA)*. This was introduced through the EU Directive 2003/35/EC and has by now been adopted by all Member States. The ultimate goal of that Directive is crystallized in the preamble, which states: "*Effective public participation in the taking of decisions enables the public to express, and the decision maker to take account of, opinions and concerns which may be relevant to those decisions, thereby increasing the accountability and transparency of the decision making process and contributing to public awareness of environmental issues and support for the decisions taken*". The SEA was originally conceived of as (and still often is) a broadening of the EIA (Environmental Impact Assessment), but the simple fact that it is "strategic" broadens its scope into the territorial and spatial dimension. The SEA has therefore become *de facto* the means to introduce participatory processes into normal planning procedures, since all plans are subject to it. The SEA then becomes the evaluation function that transforms traditional planning into iterative and interactive processes, as well as making a procedural and methodological link with the other kinds of issues for which it is mandatory, such as approving a power plant or a wind farm.

2. Successful Antecedents

An interesting implementation of the SEA participatory approach, showing its advantages for local territorial development, comes from the Region of Tuscany. The village of Montaione is located in the heart of picturesque Tuscany, close to the historical cities of Florence, Siena and Pisa. In 2007, the German multinational company TUI AG bought a plot of land of eleven square kilometres on which there are several old buildings, a medieval castle, a hotel, an 18-hole golf course as well as a few agricultural areas. "Tenuta di Castelfalfi S.p.A.", a limited company in which TUI had a shareholding of 85% and the previous Italian owner 15%, was established to put into effect the biggest tourism project in Tuscany as well as in the company's history. As the project could provide significant development and employment opportunities to the territory, but at the same time had a

strong impact on landscape, the Municipality of Montaione decided, before approving any type of urban, spatial and building modification, to launch a broad consultation allowing all interested citizens to express their views on the initiative. The feasibility study needed to prepare the debate was funded by TUI AG, which also contributed financially to the consultation sessions, involving the citizens and stakeholder representatives of the local community as well as some domain experts (architects and planners). As a result of the public debate, several original arguments for change were raised, which contributed to improving the environmental sustainability, but also the economic feasibility, of the proposed project, and were handed out to the company for completion and integration of its initial business plan.

Another set of advantages comes from the migration from traditional to electronic management of spatial planning activities, particularly at local level (Luehrs et al., 2009). Usually, the workload for public officials is very high in every planning process. In the City of Hamburg, for example, the average length of a planning process is 2.3 years and more than 6,000 sheets of paper are sent out to the involved parties for each consultation round required. Comments sent from public agencies and citizens reach the government in many different formats (such as letters, e-mail, telephone calls, etc.) and it is a mandatory task to organise this fragmented flow of information for further evaluation by elected representatives. Use of electronic tools can drastically improve the efficiency and effectiveness of spatial planning, by reducing paperwork and bringing consistency into the various streams of information. The Hamburg case showed that, even though this was an early attempt and the involved parties had to get used to the system, the costs for public administration were considerably reduced. In addition to the gains in efficiency, the quality of information that is provided to and by the participants can be made considerably higher using electronic tools. In particular, the possibility of incorporating GIS solutions into the system enables participants to better view the likely implications of new/amended plans and to link geographical data with the comments to be sent.

The two examples presented above have been furthered in the pilots of PARTERRE to support validation of the business model for a pan-European service derived from the combination of two eParticipatory tools:

1. The Town Meeting, a method of structured involvement in local government practised in the U.S. region of New England since colonial times. Then, an entire civic community was invited by government officials to gather in a public place to formulate suggestions or provide feedback on specific policy issues. In its modern version - the Electronic Town Meeting (Molinari 2010, Garramone and Aicardi 2011) – that was methodologically refined and technically developed “in” and “by” the Italian Region of Tuscany, ICT adoption enables citizens to discuss and formulate informed judgements to impact on strategic or controversial issues in a way that is immediately intelligible to policy makers;
2. DEMOS-Plan, designed and first implemented in the German City of Hamburg by the now current enterprise DEMOS Gesellschaft für E-Partizipation mbh, with the aim to encourage a shared management of the spatial planning and SEA process amongst all the competent authorities, with a huge reduction in the amount of time and money implied by the request, collection and handling of formal or informal comments and observations to the published plan draft.

The project moved on from the consideration that spatial planning and strategic environmental assessment are in the best position to achieve a paradigm shift in the way electronic participation and social capacity building are currently practised in Europe. This for at least three good reasons:

- a) Their legal framework is completely defined at EU level, based on a reasonable distribution of competences across Member States, Regional and local institutions, and on a sustainable combination of compulsory and optional participation procedures;
- b) The migration from “offline” to “online” participation can be supported by a sound business model, showing up the efficiency and quality advantages usually advocated by supporters of electronic democracy for other key processes of public administration;

- c) A multitude of successful trials exist in this domain – most of which funded by the EC under the ICT Framework Programmes, INTERREG III or the eParticipation Preparatory Action – which have demonstrated the above advantages, not only on the political side, but also in a financial perspective.

While some issues remain unsolved, such as the one of building up a single data infrastructure for accessing, exchanging, sharing, and using interoperable quality data across the various tiers of EU public administration, the above scenario seems mature enough to justify the deployment of a pan-European service, which would be the first one reaching financial sustainability, in support of the formal and informal participation requirements of spatial planning, strategic programming and environmental assessment.

3. Technologies Deployed

This section briefly describes the tools utilised within the PARTERRE project pilots.

3.1. DEMOS-Plan

DEMOS-Plan is an ICT tool for running online consultations on spatial planning. It was originally developed by TuTech Innovation GmbH with the City of Hamburg to realise efficiency savings in conducting consultations on local plans, where Regional stakeholders and the general public have to be involved as set down by the Baugesetzbuch, the federal planning law. By largely avoiding the use of paper documents, the system saves on the printing, postage and administrative costs incurred through when inputting a large volume of information into a computer system.

Participants in a consultation can submit their comments on any particular paragraph within the electronic document describing the plan and also link their comments to a particular location on a map of the affected area, which can be overlaid with a cartographic representation of the plan. To enable them to make submissions more effectively, users can also overlay their own mapping material for reference. The consultation results into a table containing all the submissions that participants made in the course of a consultation. This table is then used by the planning authority in all the following processes and decisions concerning the plan. This is another significant advantage from adopting DEMOS-Plan, because it automates the process of collating submissions, enabling them to be printed and displayed for future internal use.

DEMOS-Plan is based on the DEMOS eParticipation platform, which TuTech developed after an FP5 ICT R&D project to carry out public consultations – some of which were done in the spatial planning domain within the scope of the LexiPation Preparatory Action project (in 2007). Then the platform was further developed to take benefit from its capacity of embedding geodata sets and spatial maps, as well as integrating online stakeholders consultation in the planning process. These consultations are normally conducted by sending printed copies of the proposed plan in text and cartographic form by post and inviting comments from public stakeholder organisations. The contributions are also sent by post, which implies that they then have to be collated and entered manually into a computer system.

The resulting eParticipatory process can be described as per the next diagram:

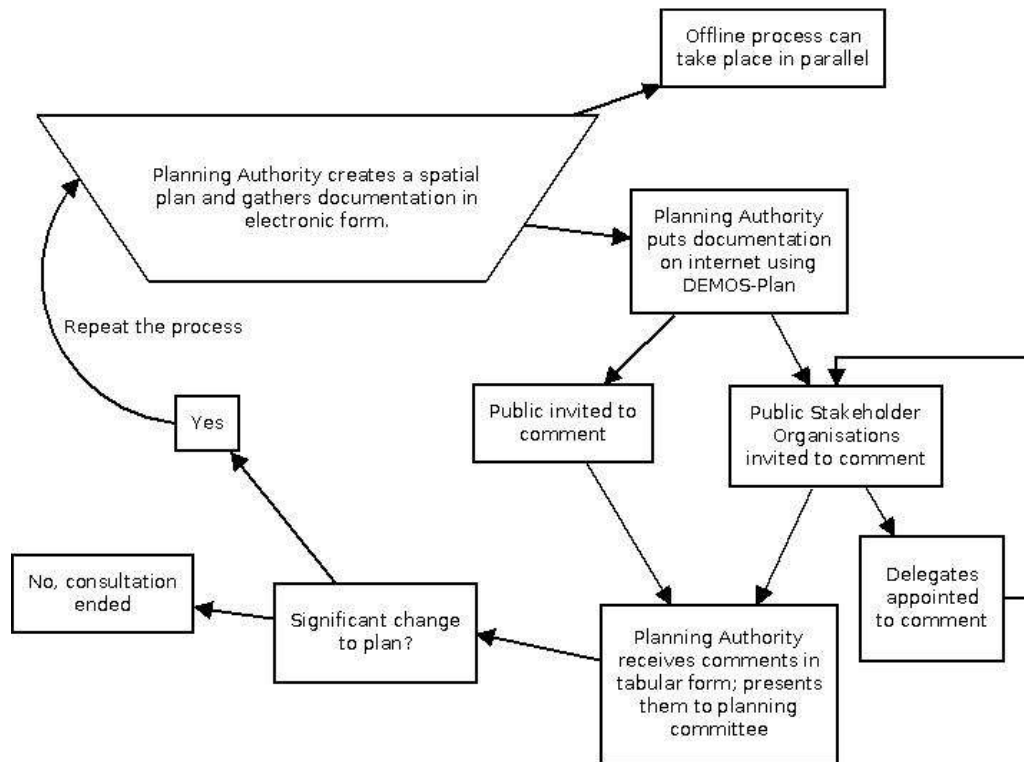


Figure 2: Flow chart showing the DEMOS-Plan process (from: PARTERRE Deliverable D3.1)

Recently, the Federal State of Schleswig-Holstein conducted a pilot consultation in Bad Oldesloe with DEMOS-Plan under the management of DEMOS Gesellschaft für E-Partizipation mbh and then decided to roll it out across the whole region in order to realise its inherent efficiency savings. The experience of Eimsbüttel and Lokstedt, two Hamburg districts, showed that using the system can cut printing and management costs up to fifty per cent.

3.2. Electronic Town Meeting

The Town Meeting was “invented” about four hundred years ago in what is now the United States of America, as an expression of direct democracy, or a way to involve citizens in a wide debate on the community’s needs and policies through the organization of public meetings. In the last thirty years, this type of events, currently recognized as standard practice of deliberative democracy, has evolved into the electronic Town Meeting (e-TM) using a combination of innovative technologies, which make it possible to bring together many people during a single day into a given venue, and ensure that they may express themselves on problems of general or specific interest.

The e-TM involves a series of activities, which develop in parallel but are closely linked with one another. The overall organisation of the event is entrusted to a central facilitator, who tells the participants what steps they have to follow and indicates when guests may intervene to break the discussion. Participants debate in small groups at round tables, each with a local facilitator, whose task it is to monitor the discussion and guarantee that it takes place in a smooth and democratic manner. On every discussion table there is a laptop computer connected to a central server, so that all the participants’ comments can be instantly recorded during the discussion. The observations entered in the computers are sent, through a wireless connection, to the Theme Team, i.e. a group of persons playing the sensitive task of reading through all the comments

arriving from the various tables, identifying the common themes as well as the most stimulating intuitions and minority opinions, and finally condensing them all in a summary text. The summaries produced by the Theme Team are presented to the whole assembly on a maxi screen, accompanied by direct quotations from the participants. This material forms the basis for the formulation of questions (or policy propositions) to be submitted to the participants, who can individually vote in real time on them by special polling keypads.

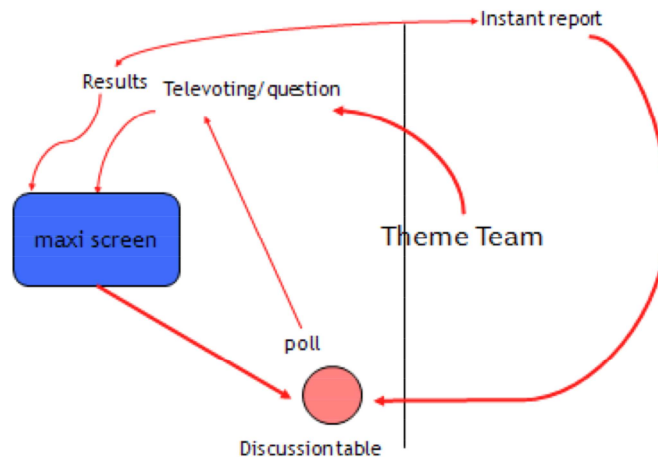


Figure 3: Electronic Town Meeting: Information Workflow (from: PARTERRE Deliverable D3.1)

At the end of the day, an instant report is drawn up, which every participant can bring home to verify the impossibility of subsequent manipulation. It summarizes the aims of participation, the process undertaken and the main results of the debate, including a ranking of policy priorities as resulted from the voting sessions.

In short, the e-TM combines the live aspects of small-scale discussion with the benefits of ICT, in two main respects: it allows management and transmission of the table discussion minutes to the plenary assembly for a complete feedback; and enables a fast survey of individual participants' opinions by means of the instant polling system, the results of which are immediately intelligible to policy makers. Moreover, the v-TM or "virtual Town Meeting" upgrade (Sielman, 2010) allows reaching out and integrating into the live discussion an additional number of external users, who are remotely connected to the main venue by a special audio/video conference system.

In the e-TM, there are four principal work phases, which are aimed at supporting and enlarging the people's focus and involvement in the topics under discussion:

- A phase of information and in-depth investigation, enabling the participants to gain confidence with the discussion themes, by consulting a specific Discussion Guide that has been prepared and distributed in advance. The Discussion Guide summarizes the controversial issues under examination, providing neutral arguments in favour or against each of the options at stake;
- A phase of free debate in small groups (tables), allowing reciprocal listening and comparison of the different opinions, without the need to come up to shared or majority standpoints. All the minutes of the table discussions are electronically sent to the Theme Team who has the precise mandate of clustering them in such a way that not even a single opinion gets lost or distorted, particularly if "deviant" from the mainstream thoughts of the majority;
- A collective reflection phase, during which the results of the previous phase (gathered through the minutes and only clustered by the Theme Team) are sent back to the whole assembly (via the maxi screen) and further discussed and highlighted in plenary as the key output of the day, before being transferred as such into the final (instant) report – or book of proceedings;

- A survey phase, in which the participants are asked to vote individually in response to various questions generated after the discussion of the key points emerged from the debate phase. Here the contribution of ICT is to make sure that the voting results are immediately displayed to the assembly – to prevent any suspect of manipulation – and will, again, become part of the instant report that is handed out to all participants.

The e-TM can be effectively used every time it is important to actively involve a large number of citizens in the analysis of a certain issue, or whenever one needs to investigate the public's opinion on the possible solutions to a given problem, or measure the acceptance of alternative strategies to be worked out in the public interest. A well-known example is the use of this technique during the "Listening to the City" process, held in New York City in July 2002, which involved about 43,000 people into a live discussion about the future of the Lower Manhattan area, after the 9/11 event. However, there many more examples of the use of this technique on a lower scale - both in the United States and in Italy, particularly in the Region of Tuscany – which have helped identify shared priorities in (e.g.) health and social care policies, socio-economic development, urban security, and other domains.

4. Evidence from eParticipatory Pilots

During the PARTERRE project, the two tools outlined above have been pilot tested – either jointly or separately - in the following regions/countries of Europe (the figures indicate the number of active participants).

Table 2: Overview of the PARTERRE pilots

Partner in charge	Thematic Content	Spatial Planning	SEA	Strategic Planning	Other
Regione Toscana, IT	Two Electronic Town Meetings (in June & December 2011) dealing with: a) Sustainable and competitive tourism (90 participants) b) Solid waste management, storage and differentiation (70 participants)			90	
			70		
City of Hamburg, DE	Distributed management of a spatial plan amendment session involving 72 stakeholders from the Bergedorf district (August-September 2011). Use of DEMOS-Plan (integrated into the Hamburg IT and geodata infrastructure)	72			
University of Ulster, UK	Eight Electronic Town Meetings (August 2011-April 2012) on the following topics: a) Provision of a roadmap for the AHP health and social well-being policies in Northern Ireland (90 participants) b) Development of a Regional response to the UK Cabinet Office's consultation on Open Data (50 participants) c) Exploration of how local businesses can be supported in their innovation activities using partnerships models with academic and government stakeholders including universities and development bodies (60 participants) d) Engagement of stakeholders in North			90	
					50
					60
					80

	<p>Belfast in a civic debate on how to address issues related to unemployment in local community (80 participants)</p> <p>e) Maximising Social Value Through Public Sector Procurement, a discussion that involved a range of stakeholders from industry, academia, government, and the voluntary and charitable sector (50 participants)</p> <p>f) Innovation in Sustainable Construction and Energy Management, a discussion that involved a number of stakeholders from industry, academia and government (75 participants)</p> <p>g) Brain Computer Neural Interfaces (BCNI) to support people with neurological problems living at home, a debate that saw the participation of 45 staff and students from University of Ulster School of Health Sciences</p> <p>h) Embedding Telehealth in Care & Service Provision, a discussion that saw the participation of 60 people from the University of Ulster and the South Eastern Regional Health and Social Care Trust.</p>	<table border="1"> <tr><td></td><td></td><td>50</td><td></td></tr> <tr><td></td><td></td><td></td><td>75</td></tr> <tr><td></td><td></td><td></td><td>45</td></tr> <tr><td></td><td></td><td></td><td>60</td></tr> </table>			50					75				45				60
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<p>ANETEL (Larnaca District Development Agency) and the Voroklini Community Council, CY</p>	<p>Two consecutive trials (in January and February 2012):</p> <p>a) Stakeholders consultation on the Draft Rural Development Plan for the District of Larnaca (15 comments in DEMOS-Plan, 37 by e-mail, 6 by post, and 39 questions)</p> <p>b) Electronic Town Meeting on the open planning issues for the communitarian progress of the Voroklini Community (39 participants)</p>	<table border="1"> <tr><td></td><td></td><td>20</td><td></td></tr> <tr><td>39</td><td></td><td></td><td></td></tr> </table>			20		39											
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<p>University of Palermo, IT</p>	<p>An Electronic Town Meeting on the creation of a shared vision of development for the heritage site known as “Maredolce Castle” and the whole second district of “Brancaccio” in the City of Palermo (80 participants, February 2012)</p>	<table border="1"> <tr><td>80</td><td></td><td></td><td></td></tr> </table>	80															
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<p>Turku University of Applied Sciences, FI</p>	<p>(Jan 2011-Mar 2012) Four Electronic Town Meetings on the following topics:</p> <p>a) Participation in a software development process at the Technical University of Applied Sciences (31 participants, mostly students and teachers)</p> <p>b) Actions to improve efficiency in the people’s use of energy in the Hakastarö building (46 participants, including DEMOS-Plan users)</p> <p>c) Village planning and development in the Turku Archipelago (citizens from the Korppoo and Utö communities, 46 participants)</p> <p>d) Village planning and development in the town of Pargas (citizens from the Houtskär community, 42 participants)</p>	<table border="1"> <tr><td></td><td></td><td></td><td>31</td></tr> <tr><td></td><td></td><td></td><td>46</td></tr> <tr><td>46</td><td></td><td></td><td></td></tr> <tr><td>42</td><td></td><td></td><td></td></tr> </table>				31				46	46				42			
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Each pilot within its specificity has mobilised a full scope of relevant actors (mostly between 40 and 90 people), both directly as attendees and indirectly through local partnerships, including politicians, citizens, civil society groups and the business sector. Contentwise, these eParticipatory trials were characterised by their adherence to the legal and/or policy framework in a variety of (spatial and non spatial) planning domains, ranging from energy and solid waste management to public health and well being, from rural development to public transport, etc.

In every case, the discussion topic was negotiated upfront by the local partner in charge of the PARTERRE project with one or more public sector authorities holding the legal competence to take decisions on that matter. This because it was felt impractical to run eParticipatory exercises in a community without the prior consensus of the policy makers involved. Given the experimental nature of the trials, which were run for the first time in all regions but Tuscany and Hamburg, and the emphasis given to technology rather than content evaluation, it has to be seen as a very positive outcome that most thematic domains actually made reference to an official proceeding (for example – the formation or revision of a spatial planning or regional programming act).

Another sign of positive impact has been the extremely high satisfaction rates of the e-TM attendees, collected by means of appropriate questionnaires – ranging between 70% and 90% of the participants in all trials. This adds value to the political reputation of the government agency (directly or indirectly) responsible for the trial.

Overall, the PARTERRE pilots have proven successful in winning the attention of decision makers for their capacity to deal with the following (totally or partly) unfulfilled needs of the European public sector:

- Identification/Prioritisation of policy issues and “crowdsourcing” of topics/contributions from the general public (Surowiecki, 2004);
- Assessment of policy/legislative acts compliance with citizens and stakeholders priorities, upon deliberation of new plans, laws or regulations (Innes and Booher, 2004; Cap Gemini and TNO, 2004);
- Voluntary or compulsory consultations in the context of environmental assessment, strategic planning, operational implementations or amendments of existing plans (as outlined above);
- Dematerialisation of maps/texts in order to reduce workload, save money/time etc. (as shown in Section 3 for what concerns the German case).

The following table articulates the four groups of needs and matches them with the appropriate pilots as described above.

Table 3: Needs Analysis of the PARTERRE Pilots

Envisaged needs	Issues identification and prioritisation	Policy/legislative assessment	Citizens / Stakeholders consultation	Dematerialisation of supporting evidence
<i>Political impulse</i>	Discretionary	Depending on the legal framework	Mandatory	Depending on the costs/benefits
<i>No. of required participants</i>	Medium	Medium	High	Low
<i>Nature of G2C collaboration</i>	Informal	Informal	Formal	Formal
<i>Supplementary aim(s)</i>	Provide tailored documentation to support an informed debate within the public opinion	Pre-test the feasibility of policy/legislative decisions with a representative sample of the population	- "No citizen left behind" (universal consultation) - Interactivity with stakeholders / civil society organisations	Speedy and handy management of proposed and approved changes in norms, rules, regulations
<i>Tools used to the purpose</i>	- Electronic Town Meeting	- Electronic Town Meeting	- DEMOS-Plan and/or - Electronic Town Meeting	- DEMOS-Plan
<i>Reusability of results</i>	Medium (depending on political will)	High	High	High (immediate)
<i>Examples of PARTERRE pilot locations</i>	Ulster, UK Sicily, IT Larnaca, CY Turku, FI	Ulster, UK Tuscany, IT	Hamburg, DE Larnaca, CY Turku, FI	Hamburg, DE Larnaca, CY

Most of the above pilots have been declined at Regional and local (City or Municipality) level, reflecting the current EU27 Member State scenario of spatial and socio-economic planning, which is now characterised by two clear trends:

- Devolution of planning power from the State level to the "2nd tier" of public administration (i.e. Regions, Counties or Districts), particularly as far as the framework instruments are concerned;
- Devolution of regulatory autonomy from the Regional/County/District level to the "1st tier" of public administration (City or Municipality), in compliance with the framework instruments established.

5. Discussion

To sum up, the potential of PARTERRE technologies and services, besides the already mentioned spatial planning and SEA domains, seems to be identifiable in the broad context of place-based (or territorially oriented) public policy-making. Its constitutive elements (among others, see Bradford 2005 and Barca 2009) include:

- A "tiered" public sector, with central government that devolves real decision-making power to regional and local bodies/agencies in a variety of topics;
- A "networked governance" system, which enables and ensures effective collaboration between public policy makers, civil society and private sector stakeholders;

- A mixture of transversal initiatives, measures and interventions (including financial aid and/or changes in legislation and regulation), which all have in common the aim to blur the borders between:
 - a. “Vertical” business sectors (giving more emphasis to the location of enterprises - for instance, in or out of the cities - rather than their actual economic activity)
 - b. “Economic” and “social” development (looking for a balance of incentives to e.g. entrepreneurship and innovation, with broader health and education programs)
 - c. “Soft” and “hard” capital (e.g. combining financial support to investments with professional and vocational training services)
 - d. “Equity” and “efficiency” (with government actions trying to pursue them both)
 - e. “Sustainability” and “competitiveness” (being seen as two sides of the same coin)
 - f. “Urban” and “rural” environments (acknowledging the potential contribution that both of them can provide to the material and immaterial growth and to the national and international specialisation of a given territory);
 - g. A combination of policy instruments and tools for “tapping into local knowledge” and making it possible to “co-create” public plans and programs with representatives of the constituency.

Further to that, the PARTERRE pilot experiments demonstrated good potential of the Territorial Living Lab approach (Marsh 2008) for spatial planning and environmental assessment in three key dimensions:

- Living Lab partnerships allowing to improve citizen participation and stakeholder relationships and leading to greater ownership of planning outcomes and thus smoother implementation.
- Living Lab co-design processes allowing to address innovation needs in planning processes where they emerge, particularly in the integration and prioritisation of stakeholder interests.
- Living Labs being complementary to eParticipation tools and methods for planning processes, leading to an integrated PARTERRE service concept, covering the entire planning process and its iterative cycles.

The outcome has been a deep integration of the Living Lab approach into the PARTERRE service – taking advantage of Living Lab partnerships to consolidate service outcomes – in order to envisage a framework for future professional delivery. Such framework can be presented and described as per the following diagram, where we can identify three distinct processes by the different colours of the arrows used to track them.

1. The co-design (emergent) process of policy design (championed by the Palermo and some of the Ulster and Turku pilots). Here the existing (or yet to emerge) Living Lab partnership “moves first” in determining both the issues to be dealt with and the discussion items that become central in the e-TM being organised at local level. After the e-TM results, provided in terms of a “ranking of priorities” in the perspective of citizens, a bottom-up policy strategy is defined and the contents of which are shared at institutional level with the institutions in charge of taking decisions. These decisions can be later shaped or not into a set of (more or less agreed upon) rules that will have further influence on territorial policy developments, and in that sense can be codified into planning documents to be revised and improved again by the citizens/stakeholders through a DEMOS-Plan experiment. Actually, neither the Palermo nor the Ulster pilots have integrated DEMOS-Plan into the same process with the e-TM, while Turku started from the institutional co-design level, running DEMOS-Plan before, rather than after the e-TM (but the whole process can be seen as cyclical somehow).
2. The spatial planning and socio-economic programming process (as championed in Cyprus, Finland, Tuscany, and in some Ulster pilots). While it is not always possible to single them out into one instantiation, both processes are shaped in a very similar way with respect to PARTERRE, having their own norms and rules that are in large part autonomous with respect to

- a) Invited participants to an electronic Town Meeting might be required (or at least asked) to consult and interact with some domain specific information sources published online before the event, using the DEMOS-Plan repository instead of other legacy or web-based content management systems. This first option was explored in the Cypriot and Finnish pilots.
- b) In particular, a possible scenario that was developed in the Finnish pilot in Hakastaro 15, Salo depicts that before the e-TM begins, DEMOS-Plan is used to collect information from stakeholder organisations and experts in order to prepare the handbook given to e-TM participants prior to the meeting. A “skeleton” structure for the participant’s guide is uploaded to DEMOS-Plan along with a map of the plan or area subject to discussion. The organisations and experts are able to submit their information by attaching it to a particular paragraph of the participant handbook or the map. This helps the organisers to collate the information more efficiently and to produce an annotated map to present the information clearly.
- c) During an e-TM, the DEMOS-Plan infrastructure could be used in support to the debate, to achieve the following improvements:
 - Instead of being simply annotated by each table facilitator in her/his summaries of the discussion, individual position statements could well be attached to specific locations on a map;
 - The Theme Team’s summaries could also be attached there and the map be projected onto a large screen for further discussion, before the start of the voting session, to show the various options for participants to vote on;
 - At the end of the e-TM, DEMOS-Plan could be used to display what was decided and allow for further comments from people and organisations that were not able to be represented at the event.
- d) By earlier research, we assume that due to the nature of the two systems, they can be more easily integrated procedurally rather than technically. That is why we prefer to speak about interoperability, rather than integration. This has the advantage of preserving the systems’ flexibility and avoiding excessive cost in designing and building a new technical solution. Therefore, in the near future we do not foresee an integration of DEMOS-Plan and the e-TM on a technical level. Nevertheless, in the long-term it is possible that the use of DEMOS-Plan for a number of plans, will be integrated by the e-TM for those that are either of a larger scale or more controversial and hence have more public interest. The e-TM would accommodate larger numbers of participants and would represent an evident sign that the planning authority is taking citizens’ concerns seriously.

Another promising application of the PARTERRE toolset has been identified in the process of definition of “shared” Smart Specialisation Strategies (S3) that is now engaging all EU Regions and Member States in the context of the new 2014-2020 programming phase of the Structural Funds. For more detailed information, the reader can be referred to DG Regio’s Smart Specialisation Platform established at the IPTS in Seville.

From a vertical governance perspective (i.e. from EU to Member State to Region), these strategies respond to the logic of ensuring a “conditional distribution of funds”, which is supposed to give priority to the emergence of real “niches” of sectorial excellence and sources of global competitive advantage within local economies.

From a horizontal governance perspective (i.e. from the Regional government to the stakeholders of a regional innovation system), the issue, totally left in the hands of elected representatives, is how to make these strategies economically viable and socially acceptable.

We have collected reliable evidence on how this goal can be achieved by the introduction of eParticipatory methods and tools, and our commitment to follow up on this route is testified by the adherence of the Tuscany Region and most of the other PARTERRE members to the principles contained in the “Budapest Manifesto” – recently launched in the context of another EU-funded territorial cooperation project, CentraLab. Basically the Manifesto commits its signatories to form a

permanent network that inter-connects local and regional government bodies and their Living Lab partnerships, in order to build and reinforce diffused territorial innovation ecosystems across Europe. The network is open to territorial authorities and local development agencies, including European Groupings of Territorial Cooperation, within Europe, in neighbouring territories such as the Mediterranean and Eastern European spaces, as well as throughout the world.

6. Conclusions

With the global crisis now forcing national and local governments towards unpopular budget decisions, consultation (not to speak of participation) of citizens and stakeholders is even less practised as a policy support tool than it recently used to. This may lead to dissipating a patrimony of knowledge deriving from a decade of more or less successful eParticipation experiments, none of which has yet shown practical continuity over time. Yet the ending age of one-off showcases may do benefit to direct democracy prospects, leaving room to a more reasoned (and reasonable) approach that is weighing the financial costs against the efficiency (and reputational) gains of ICT supported stakeholder integration in public decision making.

Both DEMOS-Plan and the e-TM proved useful tools for European planning authorities and easy to embed into existing processes and IT infrastructures. They support the legal requirement and/or political need to consult citizens and stakeholders in an efficient and effective manner. PARTERRE is now being offered as a comprehensive service, covering both methodological and technological aspects, the latter leveraging DEMOS-Plan and e-TM both as standalone components and integrated into a single concept, process and/or infrastructure.

More specifically, the DEMOS-Plan solution enables government authorities to conduct formal and informal consultations with statutory consultees and the general public online, and fully automates the participatory planning process. In this way, significant costs savings are achieved for paper-based maps that are likely to need to be printed many times during the process, as well as on other paper documents sent by post to different stakeholders that can be easily lost in the process. The system also allows an integrated approach by which consultees can submit their opinions and receive periodic updates on the status of the overall consultation process as well as an official response to their own applications.

In turn, the e-TM solution enhances direct participation of citizens, stakeholders and civil society, both at the local and regional level, in decision-making processes regarding spatial planning and environmental assessment as well as other domains where crucial decisions are taken and can be fruitfully applied and at a broader regional and national level, where the policy frameworks for Europe's territorial development are defined.

To complete this analysis, although a broader and more encompassing evaluation effort is now under way, some preliminary evidence on impact can be collected and presented hereafter.

6.1. It's a Long Way to Institutionalising eParticipation

With a few exceptions – limited to the Regional Government of Tuscany and the City of Hamburg – the other public authorities involved in the pilots were using the proposed eParticipatory tool(s) for the first time. This led to several known and unexpected issues emerged during trial design, and only partly offset by the external funding brought into by the project itself, for instance:

- Delays in the selection/definition of the most suitable topics of discussion;
- Slow paced formation of the local communities of interest;
- Repeated stop's & go's to the overall process, in dependence of local "political" conditions;
- Limited attendance of public (despite the high satisfaction rates) to the specific pilot events;
- Difficulty in identifying the "perimeter" of eParticipation impact.

These results are coherent with those of a similar study by Andrzejewska et al. (2007), referring to a geo-discussion panel in Poland, whereby a new legal framework requiring public discussions to be held on spatial (and strategic) plans does not recommend specific methods and tools to facilitate these consultations, which makes decision-makers reluctant or unwilling to organise them. Again, our results seem to call for a legislative intervention, to be held at pan-European level, as the most appropriate means to institutionalise ICT innovation in participation (Molinari 2011), or to enforce existing and partly overlooked EC directives on eParticipation in spatial planning (Concilio and Molinari 2011).

6.2. Living Labs as Local eParticipation Intermediaries

In this context, an important task has been performed by some local “intermediary organisations”, represented in the context of PARTERRE by territorial Living Labs, which have not only ensured a unitary guide and consistency to the whole pilot deployment process, but also helped in both creating the necessary framework of collaboration, and identifying the most agreed upon (and politically correct) discussion topics. As a matter of fact, all partners in the consortium were active members of the European Network of Living Labs (ENoLL, www.openlivinglabs.eu).

With few exceptions, these Living Labs were not necessarily owners of (or even experts in) the technological and/or methodological tools implied by the project aims. Thus, a preliminary stage of training was needed to ensure proper elicitation and alignment of technical competencies. On the other hand, the capacity of Living Labs to mobilise citizens and stakeholders have proven to be successful in minimising the organisational burden of the PARTERRE pilots. Moreover, in some cases, the tool(s) implementation has been so rewarding for the Living Lab’s staff and managers, that their will be permanently added to their service offer, knowledge, and skills.

Finally, during the pilot assessment stage, it turned out that these intermediary organisations could also become the “local allies” needed to transform the current experiments into a really pan-European business, given their relative ease in approaching the potential customers of DEMOS-Plan and the e-TM.

6.3. Preliminary Assessment of Efficiency and Performance

Delivered as pre-configured services, the PARTERRE tools must be evaluated against other generic participation instruments, both electronic (such as forums and social networks) and non-electronic (such as public meetings etc.), like the next table demonstrates. Unexpectedly, the e-TM (also by its virtual upgrade, the v-TM) looks better suited to cases where the public sector authority wishes to address a huge number of citizens and stakeholders, a strategy that is also viable to some extent by using DEMOS-Plan, if one keeps in mind the compulsory nature of the underlying consultation. In any case, compared to other instruments of civic participation, both tools look more or at least as efficient in terms of lag time to start-up of operations and lag time to receiving structured feedback from the attendees. Also, as a result of the higher or comparable number of active participants, the average costs of setup and management of these solutions seems lower or much lower.

Table 4: Comparative performance of various participation instruments

Instruments Envisaged goals	Non-electronic participation tools	Generic forums and social networks	DEMOS-Plan	e-TM (v-TM)
<i>Viability at "1st tier" PA (City level)</i>	Medium	Low	High	Medium
<i>Viability at "2nd tier" PA (Region)</i>	Low	Low	Medium	High
<i>Number of reached stakeholders</i>	Medium (Low)	Medium (Low)	High	High
<i>Number of reached citizens</i>	Low	Medium	Medium	High
<i>Lag time before participation starts</i>	Medium	Low	Low	Medium
<i>Possibility to select target users</i>	Medium	Low	Low	High
<i>Political gains and visibility</i>	Medium	Low	Medium	High
<i>Cost of activation (per user)</i>	High	Low	Medium (Low)	Medium
<i>Cost of management (per user)</i>	Medium	Low (Very Low)	Medium (Low)	Low (Very Low)
<i>Lag time before structured feedback</i>	High	High	Medium	Low

In conclusion, the independent or combined usage of the two PARTERRE tools may lead European public authorities to: i) building up a cost effective ICT infrastructure that enables the permanent or occasional consultation of remotely and sparsely located citizens and stakeholders, ii) gradually migrating the spatial planning system towards full digitalisation of the "compulsory" exchanges between government agencies, local stakeholders and the general public, and iii) making the two above applications practically interoperable to each other and across different EU Member States.

6.4. Analysis of Integration Potential

Although independent, both PARTERRE tools are compliant with open data exchange standards and could be integrated in terms of:

- Working with a common user community;
- Belonging to the same spatial planning or strategic assessment context and process(es);
- Exchanging common sources of content, e.g. reports, summaries, results;
- Taking mutual benefit from the use of specific clients like the WebGIS interface.

Further to that, a “conceptual integration” is required to switch from one tool to the other, e.g. to apply the e-TM as instrument in a DEMOS-Plan governed interactive process. To this purpose, a “workflow management layer” has been created within the Hamburg City pilot, which enables to define when and where the most appropriate tools can be used in a given participatory process.

6.5. Further Harmonisation Requirements

However, the provision of a pan-European service to planning authorities is also prevented by the lack of a common infrastructure between and within Member States. In fact, the EU scenario of spatial information management is far from being homogeneous at the moment. The situation sees high fragmentation of infrastructures, gaps in availability of geographical information, duplicate collection efforts and problems in identifying, accessing or using the data that is available – both at national and sub-national level. As a result of these issues, there is very little incentive to migrate land use design towards an effective dematerialisation, as well as the related participation actions.

In 2007, the European Commission’s INSPIRE Directive, laid down general as well as technical rules to set up a pan-European dimension for the management of spatial information. INSPIRE is based on an approach, fully compliant with national eGovernment plans, to support the creation of a common information basin and a dynamic and shared toolset of implementation rules, right in the fields of environmental protection and spatial planning, which are adopted through a technical committee representing all EU countries. This framework should ensure a higher integration level of spatial data than that of the national information systems, based on the infrastructures for spatial information established and operated by Member States, so as to make this information available for the formulation, implementation and evaluation of EU wide policies.

It is an open question whether this ongoing harmonisation process may find room for including electronic participation tools such as the ones deployed in PARTERRE, which might be then show their full potential in the design, monitoring and assessment of strategic policies that take into account the spatial dimension.

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