

# IEEE COMMUNICATIONS MAGAZINE

## FEATURE TOPIC: THE EVOLUTION OF TELECOM BUSINESS, ECONOMY, POLICIES AND REGULATIONS

### BACKGROUND

From the late 1970's onward, the global telecommunication industry has gone through several waves of regulatory and technological changes. Today, the very definition of telecommunication has changed. First, the traffic is no longer confined to voice and limited data services, but has become a fundamental pillar of the digital transformation that is affecting all aspects of our contemporary life. Second, the boundary line between telecommunication and information technology is becoming blurred. Third, the parties that offer products and services for consumers, businesses and industrial users operate under different regulatory regimes, ranging from strict regulations to no regulations at all. Fourth, the merging of the physical and virtual worlds through immersive technologies, open new social, cultural and business dimensions. Finally, the post-covid environment has opened new avenues for virtual workplaces (E-work).

This overall transformation is affecting the human experience, whether individual or collectively, in unprecedented ways. In this environment, network operators, component/system suppliers, but also regulators, business analysts and social scientists as well as philosopher are looking at ways to understand the evolving world in terms of models, economic systems, and policies.

Traditionally, the focus of papers published in the *IEEE Communications Magazine* has been mostly on the technical aspects, but there is an increasing awareness of the interplay between technologies and designs on one hand and societal, economic, and regulatory factors on the other. Telecommunication specialists may have tended to relegate these latter factors to others. This has led them to operate in an environment to the definition of which they do not contribute, beside new technical features or products. It is high time for engineers and technologists to be involved in the non-technical aspects of their industry in the 21st century.

The purpose of this Feature Topic (FT) is to expand the engineering horizon in this regard. Thus, this FT solicits articles that explore the myriads of issues concerning future telecommunication business models, corporate strategies, innovations in financing and economics, and policy and regulatory matters. Potential topics include, but are not limited to:

- The telecommunication industry's evolution in terms of future technologies and social environment (e-work, virtual workplace, etc.).
- Near-future services and products from the operator, vendor, customer and regulator's perspectives.
- Strategies for the deployment of new technologies (6G, virtualization, etc.).
- Impact of immersive technologies: extended realities (XR), augmented reality (AR), mixed reality (MR) and virtual reality (VR).
- Impact of big data, artificial intelligence (AI) and distributed ledger technology on security, trust management, and privacy protection.
- Effect of new business models and corporate strategies on research and development in the telecommunication industry.
- Competition (intra-industry and with new entrants), vertical integration and regulatory impact.
- Telecom finances, e.g. return on capital expenses, debt, and funding.
- Telecommunications policy and the evolution of regulatory frameworks.
- Managing innovations in telecommunication products and services.
- Telecommunications and entrepreneurship.

### ■ SUBMISSION GUIDELINES

Manuscripts should conform to the standard format as indicated in the Information for Authors section of the *IEEE Communications Magazine's* Manuscript Submission Guidelines. Please, check these guidelines carefully before submitting since submissions not complying with them will be administratively rejected without review.

All manuscripts to be considered for publication must be submitted by the deadline through Manuscript Central. Select the "FT-2212/ The Evolution of Telecom Business, Economy, Policies and Regulations" topic from the drop-down menu of Topic/Series titles. Please observe the dates specified here below noting that there will be no extension of submission deadline.

### ■ IMPORTANT DATES

**Manuscript Submission Deadline:** 1 August 2022

**Decision Notification:** 15 December 2022

**Final Manuscript Due:** 1 January 2023

**Publication Date:** March 2023

### ■ GUEST EDITORS

#### Hashem Sherif (Lead Editor)

AT&T (retired), USA  
hashem\_sherif@icloud.com

#### Eva Ibarrola

Escuela Superior de Ingeniería  
de Bilbao, Spain  
eva.ibarrola@ehu.eus

#### Kai Jakobs

RWTH Aachen University,  
Germany  
kai.jakobs@cs.rwth-aachen.de

#### Duncan Sparrell

sFractal Consulting, USA  
duncan@sfractal.com