Résumé – Summary and Conclusions

Burkhard Stiller

University of Zürich, Communication Systems Group CSG, Switzerland stiller@ifi.uzh.ch

The field of telecommunications and its relations to economics, regulation, and policies, combined with the technology and operations of large, decentralized networks is an enormous one. In that respect, the goal of the COST Action IS0605 "Econ@Tel" – A Telecommunications Economics COST Network – was to discuss, develop, and outline cross-disciplinary strategic research directions. In the context and final operation of a COST Action, a multitude of different dimensions covered among others:

- a) a training network among key people and organizations in order to enhance Europe's competence in the field of telecommunications and media economics,
- b) the support of related research and development initiatives, and
- c) the provisioning of guidelines and recommendations to European players (such as end-users, enterprises, operators, regulators, policy makers, content providers) for new converged broadband, wireless, and content delivery networks to citizens and enterprises.

The COST Action IS0605 and its partner countries partially coordinated the development of research methodologies as well as tools from engineering, media, and business research, while specifically addressing the identification, study, and discussion of proposed solutions in:

- evolutionary and regulatory issues that may help or hinder the adoption of economically efficient services,
- 2) social and policy implications of communications and its technology,
- 3) economics and governance of future networks, and
- 4) future network management architectures and related mechanisms.

In that respect, the COST Action IS0605 has mobilized the "critical mass" and diversity of economists, business research experts, engineers, network experts, and scientists working in communications and content economics.

Thus, this book offers to the research community a selection of scientific papers, which over the past four years of the Action's duration have addressed a variety of issues in those aforementioned areas – it does neither intend to be complete nor embracing all cross-disciplinary aspects. These issues presented may seem diverging, and they are, to a certain extend, however almost all of them outline a forward-looking landscape for Telecommunication Economics. As such, the Econ@Tel Action has been in favor of working on mid-term and also long-term aspects of telecommunication economics, of

which many are hard to predict in all levels of details. While this fact does not relate only to technology, but it relates to business issues, legislation issues, regulatory issues, as well as behavioral issues of users, this situation was not considered as a drawback, but as the challenge! It was reasonable to expect that many issues would have been resolved during the Action's lifetime, due to very rapid developments in this area. However, several aspects have remained open and provide a good basis for further research.

In that sense, the cooperation of COST Action IS0605 members and countries has seen a new instantiation of expert groups, research teams, and paper writing collaborations, which would not have happened without the COST Action's instrument. Of course, existing partners have been provided the chance to deepen their collaborations. In addition, industrial and regulator contacts have been established (during Econ@Tel's public workshops as well as selected Working Group meetings) and were utilized to discuss real-life problems and emerging fields of interest. However, the major challenge from the beginning – and in some cases lasting until the Action's end – was to find a common basis of terminology, applied models and systems, and applicable evaluation procedures and mechanisms – for all four areas of Econ@Tel members' areas of expertise. Although technologists, engineers, economists, policy makers, and regulators seem to work on the "same subject", their understanding and use of such knowledge is not identical and tools, models, and approaches utilized vary!

Therefore, the joint work undertaken within those four Econ@Tel Working Groups has revealed a common basis and new directions of interests in research to be addressed soon. As such, and in the dimension of individuals and organizations, the networking resources funded by the COST instrument have been invested in a right, successful, and truly European manner.

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Explaining the Organization COST

COST – the acronym for European Cooperation in Science and Technology – is the oldest and widest European intergovernmental network for cooperation in research. Established by the Ministerial Conference in November 1971, COST is presently used by the scientific communities of 36 European countries to cooperate in common research projects supported by national funds.

The funds provided by COST – less than 1% of the total value of the projects – support the COST cooperation networks (COST Actions) through which, with \leqslant 30 million per year, more than 30,000 European scientists are involved in research having a total value which exceeds \leqslant 2 billion per year. This is the financial worth of the European added value which COST achieves.

A "bottom up approach" (the initiative of launching a COST Action comes from the European scientists themselves), "à la carte participation" (only countries interested in the Action participate), "equality of access" (participation is open also to the scientific communities of countries not belonging to the European Union) and "flexible structure" (easy implementation and light management of the research initiatives) are the main characteristics of COST.

As precursor of advanced multidisciplinary research COST has a very important role for the realization of the European Research Area (ERA) anticipating and complementing the activities of the Framework Programmes, constituting a "bridge" towards the scientific communities of emerging countries, increasing the mobility of researchers across Europe and fostering the establishment of "Networks of Excellence" in many key scientific domains such as: Biomedicine and Molecular Biosciences; Food and Agriculture; Forests, their Products and Services; Materials, Physical and Nano-sciences; Chemistry and Molecular Sciences and Technologies; Earth System Science and Environmental Management; Information and Communication Technologies; Transport and Urban Development; Individuals, Societies, Cultures and Health. It covers basic and more applied research and also addresses issues of pre-normative nature or of societal importance.

Further information can be accessed via the Web at the URL: http://www.cost.eu.