

Preface

The structure and development of spatial-economic networks is currently undergoing drastic changes and following diverse pathways, mainly due to the increasing use of information and communication technology in our global economy and society. A prominent feature of the new economy is certainly the transition to a networked society, where interconnectivity and interoperability between the different economic systems play a significant role.

A condition for improved insight into the emerging socio-economic–political network structures is a thorough exploration of the evolution of established economic activities, as well as of the dynamics of their connected subsystems. This includes the investigation of how quickly economic activities are able to respond to the globalization of networks, and, consequently, of the new role of ‘space’ in this evolutionary interacting process. For example, it is a matter of serious concern how the increasing geographical scale of economic, social and political interactions can drive – and sometimes destabilize – existing systems that are usually characterized by ‘slow’ dynamics, such as the demographic, employment, energy and transport–infrastructure systems, even in peripheral and remote areas/countries. Modelling such network processes at different spatial scales is, therefore, an important challenge that can yield critical information for the design of plans and policies.

It is nowadays evident that spatial and economic science needs innovative trajectories, together with continuous cross-fertilization among the many disciplines involved, for understanding and forecasting the sets of interacting network structures, ranging from the technical to the organizational, and from the social to the economic and political levels.

In this complex and heterogeneous landscape, a central issue of research is the adoption and validation of new approaches, models and methodologies able to grasp the emergent aspects of economic uncertainty and discontinuity, and overcome the current difficulties of carrying out appropriate forecasts. In this vein, ‘interdisciplinary’ concepts, such as space–time dynamics, complexity, redundancy, self-organization, criticality, interconnectivity, or sustainability have all turned out to provide a powerful framework for

viewing and modelling the current spatial-economic transformation processes. Insight into these driving forces, as well as into additional tools of analysis and methodological/empirical investigation – especially in the light of the new configurations of spatio-temporal networks – is certainly necessary for further scientific progress.

The present volume is mainly the result of a series of Special Sessions on the above-mentioned topics, organized by the editors as part of the World Congress of the Regional Science Association International, held in April 2004 at Port Elizabeth, South Africa. The organization of the whole conference was undertaken by the Port Elizabeth Technikon University, and coordinated by Professor Gideon Horn and the congress secretary Alta Botha. The conference was extremely successful, particularly because Gideon Horn, Alta Botha and their colleagues and collaborators showed us how important scientific and organizational networks can be in science communications, including in distant areas of the world. All contributions in the present volume have been refereed, and we wish to thank all the reviewers.

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Aura Reggiani and Peter Nijkamp
Bologna (Italy) and Amsterdam (The Netherlands)

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