Introduction

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This is a book about the most important concept underpinning current European Union (EU) research policy. It focuses on the notion of the European Research Area (ERA), whose achievement will become the main objective of EU research policy once the Lisbon Treaty enters into force. Simply put, the ERA involves a European ‘internal market’ for research, where researchers, technology and knowledge circulate freely, effective European-level coordination of national and regional research activities, programmes and policies takes place and new initiatives are implemented and funded at European level. This book describes the history of the concept, analyses some of its underlying assumptions, assesses some of its achievements and takes a brief look at its future.

The ERA concept was launched formally in 2000 through the Commission Communication *Towards a European Research Area* and was provided with a new impetus in 2007 through the Commission Green Paper *The European Research Area: New Perspectives*. Yet the historical origins of the concept date from much earlier, in fact from at least 1974. This book explains how the ERA concept relates to two competing and alternating approaches to Community research policy and fits into the broader European post-war research landscape, consisting, in addition to Community research policy, of national research policies and intergovernmental research initiatives.

In both the 2000 ERA Communication and the 2007 ERA Green Paper, the ERA was discussed mainly in terms of the features it should have. The 2007 ERA Green Paper, for instance, mentioned ‘an adequate flow of competent researchers with high levels of mobility between institutions, disciplines, sectors and countries’; ‘world-class research infrastructures, integrated, networked and accessible to research teams from across Europe and the world, notably thanks to new generations of electronic communication infrastructures’; ‘excellent research institutions engaged in effective public–private cooperation and partnerships, forming the core of research and innovation “clusters” including “virtual research communities”, mostly specialised in interdisciplinary areas and attracting a critical mass of human and financial resources’; ‘effective knowledge-sharing
notably between public research and industry, as well as with the public at large’; ‘well-coordinated research programmes and priorities, including a significant volume of jointly-programmed public research investment at European level involving common priorities, coordinated implementation and joint evaluation’; and ‘a wide opening of the European Research Area to the world with special emphasis on neighbouring countries and a strong commitment to addressing global challenges with Europe’s partners (pp. 2–3’.

Yet such an approach towards the definition of the concept does not render explicit the assumptions underlying the concept. For instance, one of the assumptions underlying the ERA concept appears to be that the optimization of the European research and innovation system as a whole generates larger scientific, technological and societal benefits than that of the older but smaller-scale individual national research and innovation systems, thereby glossing over the historical character and path dependency of national research and innovation systems. The ERA concept also appears to favour coordination over competition, whether in terms of research infrastructures or centres of excellence or research programmes, and to put a lot of faith into the existence of advantages of scale and scope in research.

At the same time, focusing on features also leaves many questions unanswered concerning, for instance, the geographical borders of the concept (for example, does the ERA coincide with the EU and does it therefore enlarge as the EU enlarges; is the ERA the same in all S&T fields?), the conceptual borders of the concept (for example, does the ERA concern science, or innovation, or both?) and so on. This book analyses some of the assumptions underlying the ERA concept and looks into some of the unanswered questions.

So far, progress towards the achievement of the ERA has been assessed mainly in terms of the policy actions taken at different levels of government. Much less attention has been paid to assessing the overall impact of the ERA on Europe’s science and technology (S&T) performance and its contributions to the achievement of societal objectives. This book not only looks at policy actions taken but also assesses the ERA’s broader S&T and societal impact.

The originality of this book lies in the breadth of its perspective, its evidence-based approach and frank investigation of issues, the quality and mix (academic, practitioner) of its contributors and contributions, and its timeliness given the 2007 re-launching of the ERA debate.

The book is structured in four parts. Part 1 provides a historical perspective. In Chapter 1, Peter Tindemans sets the scene through a description of the development of the post-war European research landscape at national,
intergovernmental and European level. In Chapter 2, Pierre Papon zooms in more specifically on the development of intergovernmental initiatives in the field of research. In Chapter 3, Christian Svanfeldt assesses the extent to which Member States have amongst themselves engaged in cross-border research programme collaboration. In Chapter 4, Luca Guzzetti traces the development of the ERA idea at Community level. In Chapter 5, Jim Dratwa updates the 2007 ERA Green Paper assessment of policy actions taken so far towards the achievement of ERA.

Part 2 focuses on theoretical issues. In Chapter 6, Robert Boyer questions some of the assumptions underlying the ERA, such as the focus on continent-wide coordination at the expense of the optimization of national research and innovation systems, the benefits expected from researcher mobility and the geographical scope of ERA. In Chapter 7, Kris Aerts and Dirk Czarnitzki discuss the rationale for public intervention in the field of research. In Chapter 8, Nicholas S. Vonortas assesses the existence of advantages of scale and scope in research. In Chapter 9, Stefano Breschi and Franco Malerba analyse the networks that have emerged as a result of the Community Framework Programmes. And in Chapter 10, Henri Delanghe, Brian Sloan and Ugur Muldur discuss the extent of, rationale for and impact of cross-border programme and project collaboration.

Part 3 focuses on achievements. In Chapter 11, Vincent Duchêne, Elissavet Lykogianni and Arnold Verbeek assess whether the R&D investment gap between the EU and the US is decreasing. In Chapter 12, Giovanni Dosi, Patrick Llerena and Mauro Sylos Labini take an evidence-based approach towards the concept of the ‘European Paradox’. In Chapter 13, Wendy Hansen discusses the ERA from the perspective of human resources. In Chapter 14, Anthony F.J. van Raan, Thed N. van Leeuwen and Clara Calero-Medina take a closer look at Europe’s scientific performance. In Chapter 15, Dominique Guellec and Hélène Dernis assess Europe’s performance in the field of patents. And Chapter 16 by Luc Soete discusses the emergence of ERA as a form of industrial policy.

The final chapter of this book in Part 4, by Paraskevas Caracostas, Ugur Muldur and Kristian Orsini looks towards the future.

By the end of the book not all outstanding questions on ERA will necessarily have been answered. In fact, some new questions may have been raised. Yet at least a serious start will have been made with an evidence-based approach towards the issue.