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## Preface

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Today, innovation has never been as visibly required nor as much embraced as a competitive strategy by firms and development authorities. There are four huge challenges that call forth expectations of strengthened innovation practice. The first of these in global ranking is the crisis of human-induced climate change which is heating up the average temperature of the planet so inexorably. Innovations to impact upon the amount and nature of energy use, water use and recycling are called for here; in other words a new emphasis on eco-innovation, more integrated and systemic than the environmental technologies of yesteryear. There is good news, in that such innovations are not beyond the leading high-technology edge: many already exist. They need strategic niche management and support for technological integration and human adjustment, including sensible subsidy regimes, to start making major contributions towards crisis mitigation. The second, related crisis concerns energy itself and the evident need to ramp up the use of renewable fuels and to replace fossil fuels in the energy mix. At the time of writing, a polluting crude oil leak from deep wells in the Caribbean has just been capped, albeit temporarily, just as the polluting company announces yet another deep and difficult project in Libya. Such is the difficulty of extraction that it cannot be very long before diminishing returns to investment, or stricter regulation, put an end to such dangerous risk-taking. Then the full attention of the oil giants can be directed towards a post-hydrocarbon innovation future.

The third and fourth crises are even more directly economic and intertwined in nature. The global economy has entered a period of disequilibrium caused ultimately by global trade imbalances. Globalization has resulted in massive trade surpluses in emerging markets like China, with associated trade deficits in mature consumer markets like the US and on a smaller scale the UK. Both are liberal markets that for a quarter of a century experimented with hands-off neoliberal deregulation, most visibly in financial markets. Innovations proliferated, but unlike manufacturing regulatory regimes, without pre-commercial stress testing of products or institutions. A mortgage bubble mutated into a liquidity crisis as banks refused to lend, bringing unprecedented woe to investors and borrowers alike. Sovereign debt default threats rocked the foundations of some countries and the euro economies and the International Monetary Fund (IMF) had to be recapitalized, alongside the introduction of new funds to facilitate emergency lending. It is still unclear whether budgetary cuts to public expenditure will trump public stimulus packages to restore some degree of economic stability. The longer-term disequilibria of globalization, with cheap money flooding Western markets to facilitate historically low bank rates and securitization of hitherto intangible values, and its aftermath, have seriously eroded demand for consumer goods. This has created a major need for innovation, utilizing better, cheaper and cleaner inputs to produce a vast range of consumer products and services.

The best intellectual guide to grappling with such a 'perfect storm' of existential crises is Joseph Schumpeter. The best guide for what to do to restore innovative capability to

faltering economies, especially the mosaic of regional and urban economies that increasingly comprise the ‘real economy’, is Jane Jacobs. The first explained ‘creative destruction’ of the kind we have recently experienced on a massive scale; the second pointed to ‘relatedness’ or ‘related variety’ as the evolutionary way out of the aftermath of creative destruction. This *Handbook of Regional Innovation and Growth* unites these complementary, evolutionary world perspectives in ways that have seldom, if ever, been essayed before. To manage an ambition of this magnitude, great expertise in editing and authoring the necessary contributions was required. The editors and authors had to be familiar with the main lines of reasoning of the founding parents of evolutionary innovation analysis, and with their elaboration on the many dimensions of contemporary economic activity. Accordingly, on my being invited by Edward Elgar to accept the offer of editing the *Handbook*, with the added opportunity of contracting editorial support to achieve the task, clear thinking was called for. As with all academic fields, in evolutionary spatial innovation studies there are circles of interacting, if not like-minded scholars. Within these, there are those whose primary expertise lies in innovation research and those who push back the boundaries on the wider front of evolutionary economic geography.

In the team that ‘volunteered’ for editorial responsibilities are two leading authors in the influential regional innovation systems field, Bjørn Asheim, Deputy Director of the Centre for Innovation, Research and Competence in the Learning Economy (CIRCLE) at the University of Lund, Sweden, and Franz Tödtling, Head of the Institute for Regional Development and Environment, University of Economics and Business at Vienna, Austria. There are a further two that are leaders in the new and exciting field of evolutionary economic geography, Ron Boschma, Professor, Faculty of Geographical Sciences, University of Utrecht, The Netherlands, and Ron Martin, Professor of Economic Geography, Department of Geography, University of Cambridge, UK co-editors of the definitive *Handbook of Evolutionary Economic Geography*, also published by Edward Elgar. Finally there are Dafna Schwartz who is Professor at the Department of Business Administration and Co-director of the Bengis Center for Entrepreneurship and Hi-Tech Management at Ben Gurion University of the Negev, Beer-Sheva, Israel who is expert in entrepreneurship, innovation, risk capital and innovation as well as a senior researcher in foreign investment in emerging markets, and myself, mainly expert in regional innovation and clusters but also an early proponent and continuing advocate of the virtues of an evolutionary systems approach to regional development and policy.

I felt very comfortable inviting these friends to be my co-editors, and was delighted when they all accepted. This was both because of admiration for their many intellectual achievements and contributions, but also because I knew them all very well, had partnered them in international research projects, co-authored or co-edited books with them, or contributed to their collections. Accordingly, there was a high level of trust in the process, another example of that magic quality that helps make the world go round, as well as infusing many of the accounts that follow. I sketched and circulated a structure for a book of, initially, 42 chapters, suggesting topics and sometimes authors to colleagues, and our comments, restructurings and invitations to authors proceeded. There were successive rounds of inviting authors to contribute as not all those initially approached could fit a *Handbook* commission in to their publishing plans, but most of those approached delivered. Briefly, the book proceeds from the theory and founding parents of regional innovation and growth research, through key concepts from

evolutionary dynamics, to varieties or 'worlds' of regional innovation, to regional innovation institutions, to regional governance and policy. Reading every chapter closely in editing the book, it was striking how frequently chapters resonated across the seven main parts of the *Handbook* and how issues raised in one or more early parts of the volume are addressed and often resolved in later chapters. This gives continuity, point of view and backbone to the resulting text, the relative tightness of which will have wide appeal, especially for students and browsers new to the subject. We hope readers will find as much pleasure in reading the *Handbook of Regional Innovation and Growth* as I and my co-editors experienced in its compilation.

Phil Cooke on behalf of Bjørn Asheim, Ron Boschma,  
Ron Martin, Dafna Schwartz and Franz Tödting,  
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