the dynamics of environmental and economic systems innovation environmental policy and competitiveness

#environmental economics #sustainable innovation #environmental policy #economic competitiveness #green systems dynamics

Explore the intricate dynamics of environmental and economic systems, highlighting the pivotal role of innovation in fostering sustainable growth. This analysis delves into how robust environmental policy frameworks and enhanced competitiveness are essential for navigating complex challenges and building resilient, future-proof economies.

Educators may refer to them when designing or updating course structures.

The Dynamics of Environmental and Economic Systems

Exploiting econometric techniques aimed at dealing with the dynamics of economic systems and the heterogeneity of agents performances, the volume integrates innovation-based reasoning with ex-post analyses, and presents ex-ante analyses able to evaluate the role of climate change policies by using computable general equilibrium models such as the Global Trade Analysis Project for Energy (GTAP-E). The authors merge and use a range of datasets, including OECD-PATSTAT and STAN, to test novel techniques informed by evolutionary economic theories and the Porter hypothesis. The immediate relevance and applicability of the models will strengthen the hand of policy analysts for whom the dynamic efficiency of environmental policy is a new, high-profile evaluation criterion.

The Dynamics of the Eco-efficient Economy

Drawing together the fields of environmental economics, environmental regulation and strategic management, this study discusses the question of environmental performance versus corporate practices and finds that environmental considerations can have a positive effect on business.

Time Strategies, Innovation, and Environmental Policy

'Timeliness is a particularly relevant issue in the field of innovation and diffusion research. This book originates from the observation that innovations are time critical and asks the question: when and how do windows of opportunity for new environmental technologies emerge and why do they disappear again? By analysing these windows of opportunity and possible time strategies for innovation policies, this book represents a highly topical contribution to a front line issue in environmental and innovation research. The theoretical framework is applied to well-investigated and highly informative case studies to produce an interesting, insightful and coherent volume.' - Joseph Huber, Martin-Luther-University,

Halle, Germany This book is the first attempt to systematically introduce the aspect of time into economic and environmental innovation policy. The authors demonstrate how 'windows of opportunity' for technological innovations emerge and also explain how they can be identified and effectively exploited. Technological innovations are widely considered as an opportunity to realise a double dividend - protect the environment and increase profits by introducing a more sustainable technology. However, intervention by the state is often needed to overcome the competitive disadvantage caused by externalities, path dependency and lock-in. The authors provide extensive evidence that this resistance to technological change is subject to substantial temporal variation. They argue that it is economically and politically sensible to identify periods of time in which resistance is weakest and to exploit these 'windows of opportunity' whenever and wherever they occur. They also highlight how time strategies for innovation policy can involve the preparation and creation of 'windows' which do not yet exist. Throughout the book, they use an array of varied and interesting case studies to confirm and illustrate their theoretical findings. These address issues such as CFC phase-out, the lean-burn engine versus the catalytic converter, ecological alternatives to chemical pesticides and the zero emission vehicle mandate in California. By exploring the relationship between time strategies and technological change, this book will undoubtedly lead to a more efficient and sustainable innovation policy. It will be required reading for academics, researchers and policymakers working in the fields of environmental innovation, sustainability, technology policy and political science.

Towards Environmental Innovation Systems

Here is a dialog among worldwide experts across disciplines concerning theoretical frameworks and practical experiences to guide research and policy "towards environmental innovation systems". The contributors explore new directions of research at the border of two research traditions: systems of innovation and environmental innovations. The text examines the four main components of environmental innovation systems: conceptual foundations, empirical experiences, strategic approaches, and experiences with policy instruments.

Evolutionary Economics and Environmental Policy

Offers an evolutionary economics perspective on energy and innovation policies in the wider context of the transition to sustainable development. This work also includes an analysis of the environmental policy implications of evolutionary economics; and a critical examination of Dutch environmental and innovation policies and policy documents.

System Innovation for Sustainability 1

Sustainable consumption and production (SCP) was adopted as a priority area during the World Summit on Sustainable Development in Johannesburg in 2002 and has since become one of the main vehicles for targeting international sustainability policy. Sustainable consumption focuses on formulating equitable strategies that foster the highest quality of life, the efficient use of natural resources, and the effective satisfaction of human needs while simultaneously promoting equitable social development, economic competitiveness, and technological innovation. But this is a complex topic and, as the challenges of sustainability grow larger, there is a need to re-imagine how SCP policies can be formulated, governed and implemented. The EU-funded project "Sustainable Consumption Research Exchanges" (SCORE!) consists of around 200 experts in the field of sustainable innovation and sustainable consumption. The SCORE! philosophy is that innovation in SCP policy can be achieved only if experts that understand business development, (sustainable) solution design, consumer behaviour and system innovation policy work together in shaping it. Sustainable technology design can be effective only if business can profitably make the products and consumers are attracted to them. To understand how this might effectively happen, the expertise of systems thinkers must be added to the mix. System Innovation for Sustainability 1 is the first result of a unique positive confrontation between experts from all four communities. It examines what SCP is and what it could be, provides a state-of-the-art review on the governance of change in SCP policy and looks at the strengths and weaknesses of current approaches. The SCORE! experts are working with actors in industry, consumer groups and eco-labelling organisations in the key consumption areas of mobility, food and agriculture, and energy use and housing – responsible for 70% of the life-cycle environmental impacts of Western societies – with the aim of stimulating, fostering or forcing change to SCP theory in practice. The System Innovation for Sustainability series will continue with three further volumes of comprehensive case studies in each of these three critical consumption areas. Each chapter of this book examines problems

and suggests solutions from a business, design, consumer and system innovation perspective. It primarily examines the differing solutions necessary in the consumer economies of the West, but also comments on the differing needs in rapidly emerging economies such as China, as well as base-of-the-pyramid economies. The System Innovation for Sustainability series is the fruit of the only major international research network on SCP and will set the standard in this field for some years to come. It will be required reading for all involved in the policy debate on sustainable production and consumption from government, business, academia and NGOs for designers, scientists, businesses and system innovators.

International Economics of Resource Efficiency

Human societies face a threatening future of resource scarcity and environmental damages. This book addresses the challenge of turning these risks into opportunities and policies. It is a collection of high level contributions from experts of sustainable growth and sustainable resource management. Focussing on economics, sustainability, technology and policy, the book highlights system innovation, leapfrogging strategies of emerging economies, possible rebound effects and international market development. It puts natural resources centre stage and will make an important contribution to achieving the goal of a 21st century Green Economy.

Innovation-Oriented Environmental Regulation

Innovation-oriented environmental regulation is extremely attractive for policy planners and decision makers, since it is expected that innovations can cut costs of environmental measures and overcome existing trade-offs between economic and ecological goals. The central question is, however, how such a regulatory regime of environmental policy approaches should look like. This book provides an excellent overview of the state of research by presenting and discussing theoretical approaches towards a framework of environmental regulation and innovation, international case studies as well as econometric and modelling studies from Europe and the USA.

System Innovation and the Transition to Sustainability

Modern societies face several structural problems such as transport congestion and greenhouse gas emissions due to the widespread use of fossil fuels. To address these important societal problems and achieve sustainability in the broad sense, major transformations are required, but this poses an enormous challenge given the complexity of the processes involved. Such transformations are called 'transitions' or 'system innovations' and involve changes in a variety of elements, including technology, regulation, user practices and markets, cultural meaning and infrastructure. This book considers two main questions: how do system innovations or transitions come about and how can they be influenced by different actors, in particular by governments. The authors identify the theories which can be used to conceptualise the dynamics of system innovations and discuss the weaknesses in these theories. They also look at the lessons which can be learned from historical examples of transitions, and highlight the instruments and policy tools which can be used to stimulate future system innovations towards sustainability. The expert contributors address these questions using insights from a variety of different disciplines including innovation studies, evolutionary economics, the sociology of technology, environmental analysis and governance studies. The book concludes with an extensive summary of the results and practical suggestions for future research. This important new volume offers an interdisciplinary assessment of how and why system innovations occur. It will engage and inform academics and researchers interested in transitions towards sustainability, and will also be highly relevant for policymakers concerned with environmental issues, structural change and radical innovation.

New Developments in Eco-Innovation Research

Eco-innovations are crucial for reducing the environmental damages arising from economic activities, and are one of the main drivers of a successful transition towards sustainable development and remedying essential climate change problems. This book provides an overview of recent advances in the rapidly growing field of eco-innovation research, adopts an interdisciplinary perspective and outlines the main future developmental trends. A broad range of topics are addressed, including a bibliometric analysis of eco-innovation research, the relationship between eco-innovation and corporate sustainability, eco-innovation system analysis, new evidence on the economic effects of eco-innovation, and the relevance of policy and policy mixes for eco-innovation activities. The book is dedicated to Klaus

Rennings, one of the most important representatives of this field, who unexpectedly passed away in September 2015.

Innovation for a Low Carbon Economy

Innovation for a Low Carbon Economy analyses the interplay of technological, institutional, market and management factors in the dynamics of energy systems. The book aims to inform national and international policies to promote low carbon innovation.

Environmental Efficiency, Innovation and Economic Performances

This book deals with the increasingly complex issues of eco-innovation. Eco-innovation is becoming a conceptual reference point for many regional and international public policies and management strategies. Since 2000, this field of research has been focusing on environmental innovation, particularly related to the intensity of emissions, and economic performance and efficiency. There are two reasons for this growing interest. The first is that environmental performance is one of the main economic policy goals of European countries thanks to its relevance to the Lisbon Strategy and the Göteborg priorities for sustainable development. The second, which is partly linked to the first, is related to the growing impact of environmental regulation on private sector activity in many European countries. This volume brings together microeconomics studies on firms' eco and economic performance both in the industrial and service sector; by considering a sector based perspective rooted mainly in the exploitation of NAMEA data; at regional level, and a macroeconomic analysis of the environment, income and welfare. This collection brings together the best of recent research in the area of eco-innovation and in its entirety is an excellent source of knowledge for postgraduates and researchers students of Environmental and Ecological Economics alike. As well as fully developing the theoretical aspects of its topics, these essays are also strongly policy-oriented and will be of interest to anyone seeking information an applied perspective.

Innovations Towards Sustainability

The volume contains eight articles together with comments by twenty authors and discussants on the topic of innovations and sustainability. It provides a competently written, balanced and differentiated state-of-the-art insight into the relation between innovations and sustainability from the perspective of evolutionary economics. The scope of the contributions encompasses the technological, social, organizational, and political dimensions of the topic. Each article is discussed by a competently written commentary providing a critical evaluation and relating it to the relevant literature. Particular interest lies on the issues of steering opportunities and path formation capabilities by decentralized agents, or governmental institutions from the viewpoint of evolutionary economics.

The Economics of Knowledge, Innovation and Systemic Technology Policy

There is wide consensus on the importance of knowledge for economic growth and local development patterns. This book proposes a view of knowledge as a collective, systemic and evolutionary process that enables agents and social systems to overcome the challenges of the limits to growth. It brings together new conceptual and empirical contributions, analysing the relationship between demand and supply factors and the rate and direction of technological change. It also examines the different elements that compose innovation systems. The Economics of Knowledge, Innovation and Systemic Technology Policy provides the background for the development of an integrated framework for the analysis of systemic policy instruments and their mutual interaction the socio-political and economic conditions of the surrounding environment. These aspects have long been neglected in innovation policy, as policymakers, academics and the business community, have mostly emphasized the benefits of supply side strategies. However, a better understanding of innovation policies grafted on a complexity-based approach calls for the appreciation of the mutual interactions between both supply and demand aspects, and it is likely to improve the actual design of policy measures. This book will help readers to understand the foundations and working of demand-driven innovation policies by stressing the importance of compent and smart demand.

Sustainability and Firms

Expands the concept of sustainable to include not only the environment, but social relations, companies, profit, and competitiveness. On this level playing field, suggests a partnership among business,

citizens, and government to set policy. Focuses on such aspects as environmental regulations and foreign direct investment flows within the European Union, technological change for sustainable development, socio-technological innovation, and a thermodynamic analysis. Annotation copyrighted by Book News, Inc., Portland, OR

Environmental Innovation and Firm Performance

The links between a firm's competitiveness and the natural environment have been studied since the mid 90's. This volume explores, both theoretically and empirically, the relationships between environmental product innovation, green image and firm performance.

Innovation in Environmental Policy?

. . . offering an enjoyable read in comparative politics and policy, it offers a point of reference for understanding the conceptual and empirical possibilities for further research in EPI. Darren McCauley, West European Politics . . . a bank of internationally based case studies written by leading environmental experts. The Environmentalist The organisation of th[is] book is exemplary, particularly for an edited volume. . . [A]n impressive intellectual contribution to the understanding of EPI. . . I strongly recommend it to scholars and students. . . and, crucially, also to politicians and civil servants who have attempted (or half-attempted) the task of remedying the historical neglect of environmental issues. Ian Bailey, Environment and Planning C Good social science may not raise our spirits, but it should improve our policy understanding. Andrew Jordan and Andrea Lenschow have produced a volume that provides a subtle and empirically informed understanding of environmental policy integration, using a design that looks both at the full policy cycle and at cross-national comparisons. From the foreword by Albert Weale FBA, University of Essex, UK Policy coordination is normally studied in hierarchical and institutional terms. This volume demonstrates the power of an idea to function as a framework for coordination. It offers an innovative study of policy coordination, as well as a thorough study of environmental policy. Guy Peters, University of Pittsburgh, US This book deals with a critical challenge facing modern governments: how to integrate environmental thinking into all policy areas. It provides fascinating insights into the progress made in realizing this objective and is a must read for anyone interested in understanding how far we have come, and how far we still have to go, in greening government for sustainable development. James Meadowcroft, Carleton University, Canada This collection brings together leading scholars in the field to explore the origins and applications of different instruments of environmental policy integration from a comparative perspective. This book is a must read for environmental policy practitioners and scholars with an interest in how environmental outcomes can and are being improved. Miranda A. Schreurs, Freie Universität Berlin, Germany Environmental Policy Integration (EPI) is an innovative policy principle designed to deliver sustainable development. This book offers an unrivalled exploration of its conceptualization and implementation, drawing upon a set of interlinked case studies of the most common implementing instruments and the varied experience of applying them in six OECD states and the EU. Written by a team of international experts, it identifies and explains broad patterns and dynamics in what is an important area of contemporary environmental policy analysis. This insightful account of the state-of-the-art aims to offer a valuable resource for academics interested in environmental politics and policy analysis, as well as the broader, interdisciplinary theme of governance for sustainable development . It will interest advanced undergraduate and postgraduate students taking courses in comparative politics, public administration and environmental politics and policy-making. Given the continuing political relevance of sustainability, it should also appeal to NGOs, think tanks and international bodies attempting to coordinate policies across and within different levels of governance.

Industrial Innovation and Environmental Regulation

What role should governments play in protecting the environment and controlling the environmental impacts of industry? Do regulations benefit the environment? And how do they affect industrial innovation? Since the early 1970s, regulations have been used to coerce producers of goods and services into internalizing the environmental costs of production. These efforts have often faced opposition on practical and ideological grounds. Beginning in the 1980s, there has been a movement toward liberalization, coupled with the continued failure of the market to protect the environment as a public good. As a result, private and public sector interests have been debating the appropriate role of governments in protecting and improving the environment and controlling the environmental impact of industry. Using case studies from numerous countries, this book examines political and industrial trends and the responses to these challenges. The authors conclude that the complexities of environmental

and economic relationships disallow universal solutions, and they stress the need for context-specific perspectives on the role of regulatory measures in environmental innovation.

Adoption of Environmental Innovations

How do small and medium sized enterprises (SMEs) adopt environmental innovations? Do they have the necessary internal competence? Is any support offered by external parties (i.e. network involvement)? What are the policy implications? This book is based on extensive fieldwork, conducted in four traditional industrial sectors: offset printing, electroplating, textile finishing, and industrial painting. The work was carried out in Denmark, Italy, the Netherlands, Portugal and the UK. Twenty company-based case studies were analyzed and a telephone survey was conducted among 527 companies. As a result, the Innovation Triangle came to be formulated, which is presented here, defining and combining the determinants of SME innovativeness. The Innovation Triangle distinguishes three major determinants of innovativeness: business competence, environmental orientation, and network involvement. The Innovation Triangle allows one to diagnose current environmental and innovation policies, indicating which policy measures might be effective in increasing the adoption of environmentally friendly technologies, allowing environmental objectives to be achieved.

Global Competition and EU Environmental Policy

This is the first book to examine the relationship between economic competitiveness and environmental protection in European Union policy. It contains a wide range of international case studies.

Knowledge, Industry and Environment

This title was first published in 2002. Bringing together a wide range of theoretical and empirical case studies from Canada, New Zealand, South Korea, Turkey, China, Germany, Spain, Sweden, Poland, South Africa, Japan, The Netherlands and the United Kingdom, this book addresses these neglected issues, in particular, contemplating the vitally important nexus between industry, environment and the knowledge economy.Throughout the book, four key themes and issues are explored: institution building strategies; agglomeration as territorial context; sustainable industrial-environmental processes and policy initiatives; globalization, learning and industrial location dynamics. The book concludes with an outline of future research directions within the paradigm.

Eco-Innovation

Eco-Innovation considers the impact industry has on our environmental surroundings whilst exploring the need for more sustainable development. The concept of sustainable development and the general understanding of the interdependence of the environment and the economy are both examined in this thought-provoking new book.

Innovation and Sustainable Development

This book is the result of a workshop of the "Six-Countries-Programme" - the international network of political decision makers, scientists, industrialists and practitioners in innovation. It gathers papers from experts for sustainbale development and those for innovation and innovation policy to bridge the gap between these two communities and to develop mutual understanding. It shows the still very open character of the discussion about the links between innovation and sustainable development and also displays the gaps, deficiencies and necessities for completion not only in scientific analysis but also in political actions. Yet it makes clear how the concept of sustainable development can serve as guiding principle for future innovation policies and that it also offers business opportunities.

Political Economy of the Environment

This book is the culmination of several years work by a group of academics, policy-makers and other professionals looking to understand how alternative economic thinking – and indeed thinking from quite different social-scientific disciplines – could enhance the mainstream economic approach to environmental and natural-resource problems. Of the editors, Dietz comes from the mainstream economics tradition, while Michie and Oughton draw explicitly on institutional and evolutionary economics. The various authors represent a range of disciplinary backgrounds and approaches. This book draws on the strengths of each and all of these approaches to analyse environmental issues and what can be done to tackle these through corporate and public policy. The book argues that the

need for an inter-disciplinary approach. Two themes which emerge repeatedly throughout the book are the need for an interdisciplinary theory of technological change, and the need for a similarly interdisciplinary approach to the study of human behaviour and how it influences both production and consumption choices. The two themes are of course related. Resolving environmental questions requires an understanding of their nature, of their causes and, to the extent that they are anthropogenic, of how to change human behaviour. These fundamental issues are the focus of the four chapters that form Part 1 of this volume. The remainder of the volume develops them in more detail. .

Environmental Policy and Market Structure

One of the central tenets of this book is that governmental policies must be designed to take into account market characteristics and environmental phenomena - simultaneously. This volume contains a new research effort of the `Fondazione Eni Enrico Mattei' and explores the theoretical underpinnings of environmental policy in a sub-optimal world. Topics considered link economic issues (oligopolistic market structures, firm heterogeneity, and the strategic behavior of governments) to environmental issues (emission abatements, cleaner technologies, and environmental taxation). The articles in this volume were chosen to achieve a balance between breadth and depth and were written by leading experts in the field. In short, this book is rich in policy implications and raises new issues and questions for future research.

Creating Ecological Value

Creating Ecological Value is a timely contribution that matches recent trends in innovation economics suggesting that an evolutionary notion of system innovations and a sector-specific industrial dynamics perspective are a suitable analytical framework for the way in which firms address sustainability challenges through innovation. Marcus Wagner, University of Würzburg, Germany We cannot expect to solve the environmental problems we face today by narrowing our focus on single firms. We need to think more systemically. In his book, Creating Ecological Value, Frank Boons takes on this challenge. While his research begins by exploring the diversity of environmental strategies adopted by companies, he moves his analysis next to the level of the production and consumption systems to understand how these strategies shape and alter them. His work considers how the diffusion of strategies and novel approaches can be facilitated but also finds that the systems into which these strategies are imposed are resilient and, at times, resistant to change. He offers plenty of ideas to ponder as we consider how the market system as a whole addresses environmental issues. Andrew J. Hoffman, The University of Michigan, US Humans as scientists and managers often draw on metaphors to help describe and understand the complex issues they observe or manage. As human activities begin to bump up against the constraints set by natural systems there is a tendency to search for metaphors from natural science biomimicy or industrial ecology have been around for some time now. In this book, Frank Boons explores the power of ideas from evolutionary science as metaphor to understand economic systems. This is complex work, but, he does it with skill; remembering that a metaphor is powerful not just in what it explains but even more in what it doesn t serve to explain. Nigel Roome, Free University of Brussels, Belgium and TiasNimbas Business School, Tilburg, The Netherlands Firms adopt a wide variety of ecological strategies, ranging from the development of innovative products with reduced environmental impact to lobbying against governmental attempts to set standards for the way in which firms deal with the natural environment. This book explores this variety and is the first to provide a coherent evolutionary approach to the ecological strategies of firms. Drawing on insights from organization and management sciences and innovation studies, the author outlines an evolutionary framework enabling a deeper understanding of how firms shape ecological strategies and interact to create inertia or change at the level of systems of production and consumption. This framework is applied to the coffee and automobile production and consumption systems, yielding insight into the complex dynamics through which such systems evolve in dealing with ecological impact. The book advances theoretical insight into business strategies and the natural environment and illuminates the dynamics of production and consumption systems. Scholars, students and practitioners from organization and management sciences, innovation studies and industrial ecology interested in the relationship between business and the natural environment will find this book invaluable.

OECD Studies on Environmental Innovation Invention and Transfer of Environmental Technologies

Inducing environmental innovation is a significant challenge to policy-makers. This book examines the challenges and illustrates them in three sectoral studies: alternative fuel vehicles, solid waste management and recycling, and green chemistry.

Multiple Helix Ecosystems for Sustainable Competitiveness

This book discusses the main issues, challenges, opportunities, and trends involving the interactions between academia, industry, government and society. Specifically, it aims to explore how these interactions enhance the ways in which companies deliver products and services in order to achieve sustainable competitiveness in the marketplace. Sustainable competitiveness has been widely discussed by academics and practitioners, considering the importance of protecting the environment while sustaining the economic goals of organizations. The Quintuple Helix innovation model is a framework for facilitating knowledge, innovation and sustainable competitive advantage. It embeds the Triple and the Quadruple Helix models by adding a fifth helix, the “natural environment.” The Triple Helix model focuses on the university-industry-government triad, while the Quadruple adds civil society (the media- and culture-driven public) as a fourth helix. The Quintuple Helix model facilitates research, public policy, and practical application of sustainable competitiveness principles. Applying the most recent developments and theoretical insights of this model, the contributors to this volume address such questions as: how do government, academia, industry and civil society actors interact for promoting sustainable competitiveness at the country (regional) level? How do these actors influence sustainable operations management at the company (business) level? In so doing, they shed new light on the dynamics of economic growth, sustainability and competitiveness.

Environmental and Technology Policy in Europe

This book contains six studies on various national environmental policies and environment -oriented technology policy systems in Austria, Denmark, Germany, the Netherlands, Spain, and the United Kingdom, sandwiched between this introductory and a concluding chapter. These studies were conducted as part of the ENVINNO research project, "Towards an Integration of Environmental and Ecology-Oriented Technology Policy: Stimulus and Response in Environment Related Innovation Networks\

Applied Research in Environmental Economics

Sustainable development, climate policy, biodiversity conservation – all these represent flash points at the intersection of environmental science, economics, and public policy. This volume offers a snapshot of environmental economic research on a range of policy-relevant problems. Academic contributions are complemented by the views of policy makers on environmental policy priorities, the usefulness of academic research for decision making, and the future of applied research.

Environmental Border Tax Adjustments and International Trade Law

This timely book brings clarity to the debate on the new legal phenomenon of environmental border tax adjustments. It will help form a better understanding of the role and limits these taxes have on environmental policies in combating global environmental challenges, such as climate change.

Environmental Regulation and Market Power

Emissions taxes, tradeable emission permits and voluntary compliance policies are becoming the instruments of choice in controlling environmental problems at the national and international level. This text uses research in order to appraise their efficiency in varying market conditions.

Environmental Regulation in the New Global Economy

This book attempts to answer these questions using case studies of three pollution-intensive industries: iron and steel, leather tanning, and fertilizers. Based on in-depth interviews with managers and regulators in Western and Eastern Europe, Asia, Africa and Latin America, the book illustrates the variety of responses to the conflicting pressures of globalization and environmental protection at corporate and industry levels.

System Innovation for Sustainability 1

"Sustainable consumption and production (SCP) was adopted as a priority area during the World Summit on Sustainable Development in Johannesburg in 2002 and has since become one of the main vehicles for targeting international sustainability policy. Sustainable consumption focuses on formulating equitable strategies that foster the highest quality of life, the efficient use of natural resources, and the effective satisfaction of human needs while simultaneously promoting equitable social development, economic competitiveness, and technological innovation. But this is a complex topic and, as the challenges of sustainability grow larger, there is a need to re-imagine how SCP policies can be formulated, governed and implemented. The EU-funded project "Sustainable Consumption Research Exchanges" (SCORE!) consists of around 200 experts in the field of sustainable innovation and sustainable consumption. The SCORE! philosophy is that innovation in SCP policy can be achieved only if experts that understand business development, (sustainable) solution design, consumer behaviour and system innovation policy work together in shaping it. Sustainable technology design can be effective only if business can profitably make the products and consumers are attracted to them. To understand how this might effectively happen, the expertise of systems thinkers must be added to the mix. System Innovation for Sustainability 1 is the first result of a unique positive confrontation between experts from all four communities. It examines what SCP is and what it could be, provides a state-of-the-art review on the governance of change in SCP policy and looks at the strengths and weaknesses of current approaches. The SCORE! experts are working with actors in industry, consumer groups and eco-labelling organisations in the key consumption areas of mobility, food and agriculture, and energy use and housing - responsible for 70% of the life-cycle environmental impacts of Western societies - with the aim of stimulating, fostering or forcing change to SCP theory in practice. The System Innovation for Sustainability series will continue with three further volumes of comprehensive case studies in each of these three critical consumption areas. Each chapter of this book examines problems and suggests solutions from a business, design, consumer and system innovation perspective. It primarily examines the differing solutions necessary in the consumer economies of the West, but also comments on the differing needs in rapidly emerging economies such as China, as well as base-of-the-pyramid economies. The System Innovation for Sustainability series is the fruit of the only major international research network on SCP and will set the standard in this field for some years to come. It will be required reading for all involved in the policy debate on sustainable production and consumption from government, business, academia and NGOs for designers, scientists, businesses and system innovators."--Provided by publisher.

Unilateral Environmental Policy and International Competitiveness

Recoge: Part 1. Informing innovation policy : measurement issues - Part 2. Improving innovation policy : strategic issues.

The Innovation Policy of the European Union

Principles of Sustainable Development is the component of Encyclopedia of Development and Economic Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. Sustainable Development is a term of differing definitions. Standing alone, the term is abstract and ambiguous. The meaning most often cited is that adopted by the World Commission on Environment and Development: meeting today’s true needs and opportunities without jeopardizing the integrity of the planetary life-support base – the environment – and diminishing its ability to provide for needs, opportunities, and quality of life in the future. This definition may serve as a general principle, but for a guide to action its components sustainability and development must be given substance: what is to be sustained and what developed? Is development essentially economic or material growth, and is sustainability mostly a means to keep economic growth growing? Consequently, should development represent means toward ecologically sustainable ends? The concept of ecological sustainability has been advanced as a restriction on economic development. It follows therefore that principles of sustainable development depend upon how the term is understood and how it is put into practice. Even so the definition of the World Commission on Environment and Development, given the adequate definition of variable needs, provides the most reliable principle for testing the qualitative and ecological sustainability of development proposals. The Theme on Principles of Sustainable Development, in three volumes, deals with the diversity of points of view on this complex subject. These three volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

Principles of Sustainable Development - Volume III

As businesses seek to compete on a global stage, they must be constantly aware of pressures from all levels: regional, local, and worldwide. The organizations that can best build advantages in diverse environments achieve the greatest success. The Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship explores the emergence of new ideas and opportunities in various markets and provides organizational leaders with the tools they need to take full advantage of those opportunities. With a focus on economic growth in a fast-paced environment, this handbook is a critical reference for business leaders, economists, and students of economic theory.

Environmental Innovation Policy and International Competition

Economic and financial crises have brought the rise of unemployment, reduction of economic growth and emergence of global imbalances and tensions as countries and regions have suffered the effects of a variety of internal and external shocks. In this context of constant disruption, the scientific community has struggled to provide satisfactory answers to current economic challenges within standard frameworks. Focusing on the interconnections between innovation and resilience, this edited book contributes to a better understanding of how the crisis affects innovation and the capacity of territories to adapt and evolve. It offers both theoretical and empirical contributions that debate the notions of resilience in regional and urban contexts and serve as case studies related to innovation strategies and territorial clusters.

Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship

Resilience and Regional Dynamics