

# European Research on Sustainable Development



Carlo C. Jaeger • J. David Tàbara • Julia Jaeger  
Editors

# European Research on Sustainable Development

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Approaches for Sustainability

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# Foreword

Sustainable development is a challenge for scientific research in general and for European research in particular. It calls for radical transformations of the ways we do research and think about it, of the ways we shape research policies, and of the ways the scientific system interacts with the other components of society. As director for environmental research in the European Commission, I welcome this pair of books, that build on the Conference “Sustainable development: a challenge for European research”,<sup>1</sup> that we organized in Brussels in May 2009. This event generated a beautiful positive energy and fostered an inclusive, but demanding, vision of sustainable development. Indeed, sustainable development is about vision, more than about prediction. Sustainable development is about confidence, more than about fear. Sustainable development is about equity and respect, more than about race and competition. Scientific research is neither a steady nor a stand-alone endeavour. The sustainability challenge calls for a web of constructive interactions, notably between science and policy-making, science and activism, science and philosophy, science and other forms of knowledge. I thank the editors of these books, and in particular Carlo Jaeger, chair of the scientific committee of the Conference, for putting together and publishing these books, and hence following up on the vivid conversation and the rich interactions initiated at the conference.

Manuela Soares

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<sup>1</sup>[http://ec.europa.eu/research/sd/conference/2009/index\\_en.cfm](http://ec.europa.eu/research/sd/conference/2009/index_en.cfm)



# **Research for Sustainability and the European Union: From Wish to Will. A Manifesto**

## **Europe and the Vision of Sustainable Development**

Sustainability is a word full of promises, evoking peace, welfare, and harmony with nature. No wonder Europe has a strong wish for sustainability. Does it also have the will?

Europe's wish became explicit in 2001, and grew ever since to culminate in 2007. In January 2007, EU Commission President José Manuel Barroso stated: "Europe must lead the world into a new, or maybe one should say post-industrial revolution – the development of a low-carbon economy." In spring, the EU declared its "triple 20%" intention, setting ambitious quantitative goals for cutting greenhouse gas emissions, increasing renewable energy use, and improving energy efficiency. In summer, this step enabled the G8 summit of Heiligendamm to declare the aim to halve global CO<sub>2</sub> emissions by 2050. And at the end of the year, it was influential in keeping the momentum in the global climate policy process at the U.N. Climate Change Conference in Bali.

A year later, however, the biggest financial crisis since 1929 hit the world. That crisis made painfully clear how unsustainable the financial boom of the past decades had been. But the perspective of sustainable development has been largely absent in the haphazard way different European nations have tried to counter a global financial crisis that will shape the twenty-first century.

"Now you don't talk so loud, Europe" many voices say, from within as from without. These voices must be heard, because without a candid debate about the challenge of sustainability, Europe cannot develop the will to meet it. And it is the absence or presence of a will to meet shared challenges that makes political communities stumble or flourish.

If Europe is to develop this will, sustainability must stay on the top of its agenda, especially in difficult times. This will take a long and difficult journey of learning by doing. On one hand, it is clear that the current pattern of global development places a growing burden of huge risks on future generations – of nuclear war,

of financial meltdown, of flooding the coastal cities of the world, to name but three of them. On the other hand, it is by no means clear how these risks can be reduced, step by step, starting from today's institutional, technological, and cultural conditions.

## **The Opportunity of Research for Sustainability**

Europe cannot solve these problems alone, nor can it tell the rest of the world how to solve them. But it can make key contributions on the way to sustainable development. Against this backdrop, research for sustainability is a major opportunity for Europe to assume its responsibility as one partner among many in the conversation of humankind.

Here again we are faced with the needed transition from wish to will. The Seventh Research Framework Programme (FP7) has sustainability as one of its overarching goals. It offers plenty of opportunities for research in areas like health, energy, climate change, and food, and it encourages sustainability oriented research in fields as diverse as new production technologies and the humanities. Moreover, the European Research Council, founded as part of FP7 with the explicit aim of fostering "investigator driven frontier research", can nurture the next generation of scholars needed to advance research for sustainability. The newly founded European Institute for Innovation and Technology (EIT), based on highly integrated public-private networks of universities, research organisations and businesses, offers another critical opportunity to advance such research.

With such instruments at hand, we – European scholars confronting the sustainability challenge and being engaged through this very Manifesto in a conversation with the European Commission – call for opening a new chapter in the long history of European science and technology. This is the opportunity, but also the responsibility of European research today. There is a clear and present danger that large fractions of European research budgets will be spent – even in the name of sustainability – on a kind of research that cannot be expected to effectively address that challenge.

To transform the wish to foster sustainability through research into the will to do so, difficult questions must be pondered. Is research a matter of utility for given purposes, or is it a creative activity that transcends utilitarian reasoning? Is the fact that all European nations together spend much less on defence research than America alone, and that the current EU budget for defence research is only symbolic, something to be proud of, or is it to be changed by gradually building up a European military-industrial complex? What kind of research does sustainability require in the face of European agricultural policy? The answers to these questions are far from obvious, but if questions like these are not openly debated, the wish for sustainability will lead to wishful thinking, not to effective action.



## A Passion for Quality

Research for sustainability can only grow if knowledge and action are intertwined in an on-going experience of learning by doing. In particular, learning from past mistakes and successes may be more fruitful in dealing with the challenge of sustainability than doomsday scenarios that leave no sense of choice. In the face of global risks, research must not sow paralysing fear, but anticipate possible changes and provide alternatives.

In this perspective, research for sustainability needs to overcome the mental frames that have blinded scholars and decisions-makers to the instability of the current world economy. The conceptual device of a representative rational agent has obscured the way interacting markets for commodities, land, and financial assets would lead to the financial crisis of 2008. In the future, the complex dynamics of socio-ecological systems – involving a multitude of heterogeneous agents embedded in shared environments – must become a key theme of research for sustainability.

The resulting research agenda will require much greater ingenuity, creativity, and patience than may appear at first sight. Research for sustainability needs skills of trans-disciplinary teamwork that are not part of traditional academic curricula. Sooner or later, European researchers should even be able to combine scholarly specialization with the philosophical literacy required to reflect on the relation between research, sustainability and the tradition of European thought.

To tackle the sustainability challenge, science must also invite and welcome plurality much more than it did in the past. A naïve belief in scientific progress will need to mature into styles of scientific research shaped by respect for different traditions of inquiry. Moreover, there is a need to catalyse critical dialogues across different domains of discourse by focussing on the sustainability challenge. New chairs, institutes, and curricula explicitly dedicated to sustainable development can inspire research in widely diverse fields of professional specialization. And together with public policy and civil society, the world of business enterprises and professional associations has a key role to play in developing practical solutions and far-reaching innovations in business models.

Research for sustainability is gradually becoming a solution provider for many of the most important problems humankind is faced with. To strengthen such research, the European Union needs specific funding mechanisms (to fund also relatively small, but long-term projects), dedicated review mechanisms (because sustainability research is goal-seeking, not simply goal-oriented); different incentive structures for career paths (credit for work on processes in analogy to the credit architects get for buildings and designs); flexibility and leadership.

Europe has the means, the duty, and the passion required to provide a global platform for such research.

This manifesto was elaborated in February 2009 by the Scientific Committee of the EU-conference: “Sustainable Development – A Challenge for European Research”.



# Contents

<b>Introduction</b> .....	1
J. David Tàbara	
<b>Developmental Doubts</b> .....	9
Mary Midgley	
<b>Equity: The Shortest Way to Global Sustainability</b> .....	23
Vandana Shiva	
<b>The Sustainability Concept: Can We Stand Between Catastrophism and Denial?</b> .....	29
Nicole Dewandre	
<b>Social Sustainability: Exploring the Linkages Between Research, Policy and Practice</b> .....	35
Andrea Colantonio	
<b>Dealing with Doom: Tackling the Triple Challenge of Energy Scarcity, Climate Change and Global Inequity</b> .....	59
Jos Bruggink	
<b>A Transition Research Perspective on Governance for Sustainability</b> .....	73
Derk Loorbach, Niki Frantzeskaki, and Wil Thissen	
<b>Integrated Climate Governance (ICG) and Sustainable Development</b> .....	91
J. David Tàbara	

**The Value of Science and Technology Studies (STS) to Sustainability Research: A Critical Approach Toward Synthetic Biology Promises** ..... 111  
 Eleonore Pauwels

**Sustainable Development: Responding to the Research Challenge in the Land of the Long White Cloud, Aotearoa New Zealand** ..... 137  
 Richard F.S. Gordon

**Integrated Water Resources Management: STRIVER Efforts to Assess the Current Status and Future Possibilities in Four River Basins** ..... 155  
 Per Stålnacke, Geoffrey D. Gooch, Udaya Sekhar Nagothu, Ingrid Nesheim, Line J. Barkved, Bruna Grizzetti, Alistair Rieu-Clarke, Johannes Deelstra, Haakon Thaulow, Dag Berge, Antonio Lo Porto, Dang Kim Nhung, S. Manasi, and Santiago Beguería Portugués

**Pragmatism and Pluralism: Creating Clumsy and Context-Specific Approaches to Sustainability Science** ..... 173  
 Paul M. Weaver

**Risks and Opportunities for Sustainability Science in Europe** ..... 187  
 Jill Jäger

**Concluding Remarks** ..... 205  
 Carlo C. Jaeger and J. David Tàbara

**Index** ..... 209

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