



**FORUM FÜR  
VERANTWORTUNG**  
STIFTUNG

# 15 YEARS

## FORUM FOR RESPONSIBILITY

**FROM EVOLUTION TO SUSTAINABILITY**

**2000 - 2015**

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## TABLE OF CONTENTS

Foreword by Klaus Wiegandt · How it all began—A personal retrospective . . . . .	5
Forum für Verantwortung—Establishment and history . . . . .	9
Organization and contact . . . . .	10
Association of Friends of the Foundation . . . . .	12
Scientific colloquiums . . . . .	14
Colloquiums for young scholars . . . . .	33
ZEIT WISSEN Award Encouraging Sustainability . . . . .	36
Current publications	
■ Entwürfe für eine Welt mit Zukunft (Blueprints for a world with a future) . .	40
■ Supported publications . . . . .	43
Interjection: The Earth system . . . . .	46
Continuing education	
■ Journalists . . . . .	48
■ Teachers/Schools . . . . .	50
■ Businesses . . . . .	54
Interjection: Biodiversity and education for sustainable development. . . . .	56
Seminars on sustainability. . . . .	57
Media projects and media cooperation projects . . . . .	60
Collaboration with universities . . . . .	64
Educational initiative Encouraging Sustainability	
■ Establishment . . . . .	67
■ Book series on the future of the Earth . . . . .	69
■ Scientific studies . . . . .	76
■ Educational modules. . . . .	78
A personal perspective on the future by Klaus Wiegandt . . . . .	81
Photo credits . . . . .	88



## HOW IT ALL BEGAN. A PERSONAL RETROSPECTIVE

*Klaus Wiegandt*

Looking back, my decision to turn my back on the world of business at 60 and to devote myself to life's basic questions and major societal challenges on a scientific basis was probably one of the best decisions I ever made. To me, resigning voluntarily at the pinnacle of my career, doing without all the comforts it entailed, and not regretting it for a minute in all the years that followed is like a gift of life. To others, it may seem more like an indication that I was not and am not a dyed-in-the-wool executive; after all, it is rare for executives to be able to let go in time and on their own terms. Of course, my decision was possible only because of the financial security I was able to achieve during the golden days of retailing.

There were two main reasons for establishing a not-for-profit foundation called Forum für Verantwortung (Forum for Responsibility) and endowing it with capital of my own: For one thing, I wanted to make clear to my family that this idea was not a whim, but rather a long-term undertaking. And for another, I wanted to give something back to the society to whom I owe so much. My friend Arno Krause, who has dedicated his entire life to education and in particular to the great European idea, emphatically encouraged me to take this path.

So I left my life as an employee behind and delved into scientific literature on the basic questions of life and the vast topic of sustainability. At this early point in time, I derived important impulses from the publications of Josef H. Reichholf and Klaus Hahlbrock; both authors later became personal counterparts.

From the beginning, animated and eye-opening discussions with Ernst Peter Fischer accompanied my studies of the scientific literature. We met during the activities to establish an institute of higher education in Holzen (near Kandern in southwest Germany) that was to be devoted to scientific education for seniors.

*"I wanted to focus my efforts  
on ten concrete subjects"*

In our conversations, ten concrete subject areas quickly emerged that I wanted to focus my efforts on—including evolution, humankind and the cosmos, cultural values, as well as questions relating to the world religions, the origins of modern societies, and above all, the sustainability of our societies on our planet.

In discussions with Ernst Peter Fischer, Arno Krause, and Annette Maas, who as a historian and founding member of the Board of Trustees has accompanied the foundation from its beginnings, we developed the idea to host one-week colloquiums with leading scientists at the European Academy of Otzenhausen. For selected topics, the state of research and possible options for action were to be

presented to and discussed with participants, in particular seniors. Following the colloquium, a scientific edited volume written in accessible form was to be published. The publisher S. Fischer Verlag agreed to publish at least the first three volumes.

When we tried to make this concept a concrete reality, difficulties emerged that I had not anticipated in the slightest. Despite generous fees, leading scientists could hardly be moved to give lectures in a framework they felt to be unfamiliar and untested, much less to write contributions for the later publications. I came up with the audacious idea to win over a Nobel laureate for the first colloquium who would solve this problem for me in one bold stroke. Ernst Peter Fischer succeeded in arranging a meeting with Nobelist Prof. Werner Arber in Basel, Switzerland, in which he proved open to my concept and willing to support it. He liked the ten topics I had planned, spontaneously agreed to attend the first colloquium and give a lecture, and from that moment on, the “image problem” had disappeared. When the first volume on the colloquium on “Evolution” sold 7,000 copies instead of the 800 to 1,000 that had been expected, the ice was broken with S. Fischer Verlag as well.

*“It’s about nothing less than the sustainability of our societies on the globe.”*

Together with Ernst Peter Fischer, who had agreed to serve as a scientific advisor to my foundation, and Annette Maas, we worked our way through the long-term agenda year by year. The fourth colloquium “The Future of the Earth” changed the orientation of my foundation. From now on, education for seniors was no longer the focus of activities. This colloquium made it clear to attendees that this was about nothing less than the sustainability of our societies on the globe.

And not least with a view to our children and grandchildren. As a result, I broadened both the target groups and the mission of the foundation Forum für Verantwortung.

Even at that time, it was clear to me that the scientific community had already been putting sustainability topics on the political agenda for more than two decades, urging action. Notwithstanding numerous global activities by progressive forces and three global summits on the environment: humankind was moving further away from the goal of sustainable development every day. I was convinced that either civil societies would be galvanized into action in time, thus giving the political community the opportunity to put the underlying conditions for sustainable development in place, or humankind would take action only when the consequences, especially in terms of the climate, would be recognizable and perceptible to everyone. But then it would be too late for sustainable development.

So I decided to win over scientists who were willing to explain the state of research as well as possible options for action concerning the most important topics in the field of sustainability in language comprehensible to civil society. In late 2005, I had finalized contracts for twelve books. Published by S. Fischer Verlag with Forum für Verantwortung by late 2007, the volumes were subsidized by the foundation and were offered for sale for less than ten euros per copy.

All this had significant consequences for the now more comprehensive work of the foundation. First, I had to build a competent team. Biologist Dr. Hannes Petrischak, the executive director of the foundation, strengthened the scientific aspect. From the beginning, Annette Maas managed the colloquiums and the book series, later joined by educator Petra Lauermann and communications specialist Anne Marschner—thanks to the generosity of the ASKO EUROPA-STIFTUNG, which initially made all three available to the foundation. Since early 2012, the team has been rounded out by Simone Petrischak (coordination and organization) and Birgit Hamm (office management). It is thanks to the entire team at the foundation, but also to the close partnership with the ASKO EUROPA-STIFTUNG and the European Academy of Otzenhausen, strong associates who were always there to help us with advice and support, that we were able to carry out such an ambitious project.

#### *Ambassadors for sustainable development*

The establishment of the Association of Friends of the Foundation in 2011 was a milestone in the foundation’s development. Besides providing support as ambassadors for sustainable development, the Association of Friends has contributed funds that have enabled the foundation to intensify its activities, especially the colloquiums for young scholars as well as an online portal for journalists.

All the actors in the broad field of sustainability deserve mention too, of course: individuals, institutions, and networks that collaborate with us, make suggestions, and offer constructive criticism.

It is this positive, strong environment that makes Encouraging Sustainability a reality—also for me personally—and I would like to take this opportunity to express my gratitude to everyone supporting my foundation in so many ways.

Yet the sphere of action I had envisaged for the newly established foundation could not be realized with the revenues from a three-million-euro endowment. Our collaboration with the ASKO EUROPA-STIFTUNG and the European Academy of Otzenhausen, which had already been close and based on mutual trust, was formalized in our joint sponsorship of the initiative Encouraging Sustainability, headed by the foundation Forum für Verantwortung.



Here, I would like to express my most heartfelt thanks to my two most important allies. Arno Krause, as chairman of the Board of Trustees, was decisive in helping to shape the scope and direction of our activities. And Klaus Peter Beck, Chairman of the Board of Trustees of the ASKO EUROPA-STIFTUNG, has been a constructive driving force for ensuring that the topic of sustainability is anchored firmly in the not-for-profit organizations linked to us as partners, and that they provide robust support for it.

All the other developments that we will describe in this report on our activities have been possible only against the background of this special partnership.

All the same, there has been one personal regret: During my time a corporate executive, I had promised my family, and of course especially my wife, that I would devote myself entirely to the family once I had retired and that I would finally take the time to travel with them to see the world's sights. I did not keep this promise, and I am profoundly grateful particularly to my wife for her support of my work.

### Klaus Wiegandt

Klaus Wiegandt attended the Hochschule für Wirtschaft und Politik in Hamburg. In 1976, he was appointed Authorized Representative of the Rewe Leibbrand Group; from 1991 to 1995, he was CEO of ASKO Deutsche Kaufhaus AG; following its merger with METRO/Kaufhof, he served as CEO of the new conglomerate METRO AG. In 2000, Klaus Wiegandt established the foundation Forum für Verantwortung and in 2006 the educational initiative Encouraging Sustainability. In 2008, he was appointed to the German National Committee of the UN Decade of Education for Sustainable Development. He was awarded the Order of Merit of the Federal Republic of Germany in 2009.

*Founding Board of Trustees, March, 2002  
(left to right) Klaus Wiegandt, Annette Maas, Arno Krause, Hans Dieter Metz (†)*



## FOUNDATION FORUM FÜR VERANTWORTUNG - ESTABLISHMENT AND HISTORY

### January 15, 2000

Establishment of Forum für Verantwortung—Foundation for scientific education and education for seniors. The mission of the foundation is defined as “promoting education and science to enable people to act on the basis of insights and responsibility.”

### 2002-2012

Scientific colloquiums (p. 14) Book series Forum für Verantwortung (named after the foundation), focus on sustainability

### July 5, 2006

The name of the foundation is shortened to Forum für Verantwortung.

### 2006

Establishment of the educational initiative Encouraging Sustainability (p. 67) Book series on the future of the Earth (p. 69)



### July 14, 2010

Authorization of the changes to the articles of association concerning the mission of the foundation, which now includes “promoting education, science, and research, particularly in the area of sustainable development.”

### 2010

Employment of an Executive Director and staff

### Since 2013

Colloquiums for young scholars (S. 33) ZEIT WISSEN Award Encouraging Sustainability (p. 36)

### 2014

Book series: Blueprints for a world with a future (p. 40) Forum für Verantwortung presents its new logo and website ([www.forum-fuer-verantwortung.de](http://www.forum-fuer-verantwortung.de))

### January 15, 2015

15th anniversary of the establishment of the foundation Forum für Verantwortung



*Anne Wiegandt,  
Jürgen Kerwer:  
new members  
of the Board  
of Trustees*



Pestelstraße 2, Saarbrücken, Germany



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Jürgen Kerwer, Wiesbaden (since 2014)  
Annette Maas, Saarbrücken  
Hans Dieter Metz († 2013)  
Anne Wiegandt, Darmstadt

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## KLAUS WIEGANDT'S TEAM

**Birgit Hamm** is a trained draftsman. Following almost 20 years in the construction industry, she took a position with ASKO EUROPA-STIFTUNG in 2007 doing secretarial and organizational work as well as IT support and was also involved with the initiative Encouraging Sustainability in this capacity. In 2012, she joined Forum für Verantwortung as Office Manager.

**Petra Lauermann (M.A.)** studied education, information science, and developmental psychology. She has been a Scientific Officer with the educational initiative Encouraging Sustainability since 2008. She coordinates educational projects, for example conducting seminars for schools and non-school partners, and is the contact for networks, cooperation partners, and educational institutions.

**Annette Maas, M.A. (F)** studied history, Romance studies, and philosophy in Germany and France. Following many years of scientific activities in academia, she has been active in various functions in relation to foundations since 1997. Ms. Maas is a founding member of the Board of Trustees of the foundation Forum für Verantwortung and has been responsible for colloquiums, book series, the Board of Trustees, and the Association

of Friends of the Foundation from the beginning. She has had a lectureship on foundations (historically oriented cultural sciences) at Saarland University since 2009.

**Anne Marschner** has a B.A. in tourism management and marketing and completed an advanced training course as a PR consultant (DAPR) in 2008. She worked in marketing for the Swiss airline SWISS from 2001 to 2005 and has been responsible for public relations for the Partners for Europe network (<http://www.partner-fuer-europa.de/index.php/en/>) since 2005. Her responsibilities also include coordinating and organizing events as well as supporting project work for the educational initiative Encouraging Sustainability.

**Simone Petrischak** completed an integrated degree program in business administration in Kiel, earning the degree of Diplom (FH) in 2002. From 1997 to 2006, she worked for a major industrial corporation in Kiel. In addition, she was active in the Kieler Planetarium association and conducted numerous public events in the Planetarium/Mediendom of the University of Applied Sciences Kiel. She has been responsible for organization and coordination, in particular preparing events, at the foundation Forum für Verantwortung since early 2012.



**Dr. Hannes Petrischak**

**Hannes Petrischak** has served as Executive Director of the foundation Forum für Verantwortung since 2010. His work is devoted to sustainable development in various event formats, which are usually highly interdisciplinary. Following studies in biology in Kiel, he completed his doctorate on butterflies in the Costa Rican rainforest in 2003. He developed and presented numerous events at the planetarium/Mediendom in Kiel through 2006. During a distance learning university program on "Environment and education" at the University of Rostock, education for sustainable development became one of his main focal areas. In 2006, he joined ASKO EUROPA-STIFTUNG, initially as Project Director of the initiative Encouraging Sustainability. His lectures, lectureships, and publications are devoted particularly to the Earth system and to biological diversity.



Annette Maas, Klaus Wiegandt, Dr. Hannes Petrischak, Simone Petrischak, Birgit Hamm, Anne Marschner (left to right). Petra Lauermann is not shown (see p. 51).

At times, Privatdozent Dr. Dirk Solte was employed as a Research Fellow, and Ms. Christina Dmitrenko as a Secretary. We also thank Ms. Barbara Dony (ASKO EUROPA-STIFTUNG) for her reliable support in the areas of bookkeeping and personnel.



## AMBASSADORS FOR SUSTAINABLE DEVELOPMENT: ASSOCIATION OF FRIENDS OF THE FOUNDATION

In 2011, the foundation Forum für Verantwortung established the Association of Friends of the Foundation. Its goal is to recruit supporters who are willing to take a stand in society as ambassadors for sustainable development and simultaneously promote the activities of the not-for-profit foundation through an annual gift.

*"Above all, I am seeking active as well as former business executives who would like to make a contribution to a discourse on sustainability in our society. Members who would like to take an active role are welcome, as are members who do not have the time to take on additional commitments—but who do not want to 'invest' in a start-up." (Klaus Wiegandt)*

*"Humankind has become the strongest force shaping planet Earth, which is why we bear special responsibility for our actions. Through our lifestyles and our production processes, we make decisions about the natural foundations on which our lives and the lives of future generations depend." (Dr. Hannes Petrischak)*

### The members of the Association of Friends receive

- information about the activities of the foundation on a continual basis
- advance invitations to planned events
- the opportunity to participate in special events for members
- the annual report on the use of funds
- as well as all of the foundation's publications.

The annual contribution is 5,000 euros per member, and it is tax-deductible. The additional funds raised through the Association of Friends finance seminars on sustainability for doctoral candidates, students, and journalists that are offered free of charge. The foundation also uses funds from the Association of Friends to continue a book series dealing with concrete blueprints for the future as well as for research projects that do not receive government funding.

The annual meeting of the Association of Friends is a venue for intensive exchange about the substance of the foundation's work. Lectures by scientists introduce the various topics related to sustainability.



**Jörg Pretzel**

The Association of Friends is represented in the public sphere by the Executive Committee, which has been chaired from the beginning by Jörg Pretzel, CEO of GS1 Germany GmbH in Cologne. Thanks to the dedicated, successful recruiting of new members, particularly by Jörg Pretzel, the Association of Friends has seen encouraging growth.

Besides Jörg Pretzel, the members of the Executive Committee are: Martina Sandrock, Ulrike Wieduwilt, Christian D. Falkowski, and Zygmunt Mierdorf.

### The members of the Association of Friends of the Foundation Forum für Verantwortung (as of November, 2015):

Klaus-Peter Beck, Christian Claus, Dr. h.c. Erwin Conradi, Marc Eckes, Christian D. Falkowski, Thomas Fell, Dr. Matthias Händle, Stefan Heinig, Dieter Hofmann, Dirk Hottes, Sascha Hottes, Reinhard Hübner, Siegfried Kaske, Dr. Hans-Joachim Körber, Klaus Kottmeier, Charlotte Krämer, Arno Krause, Tom Krause, Philipp Dean Kruk-De la Cruz, Klaus Lellé, Dr. Wolf-Dietrich Loose, Zygmunt Mierdorf, Wilfried Mocken, Dr.h.c. August Oetker, Klaus-Jürgen Philipp, Jörg Pretzel, Martina Sandrock, Hans-Werner Scherer, Bernd Schmidt, Michael Schmidt, Reinhard Schneider, Tim Schwertner, Ulrike Wieduwilt, Anne Wiegandt, Klaus Wiegandt, Angela Winkler, Cord Wöhlke



**Charlotte Krämer**

Although no longer active as a freelance professional, Charlotte Krämer maintains close ties to the business community, not least as a responsible founder concerned with questions beyond the financial development of her grant-making foundation Liebieghaus.

A dedicated patron of the arts who has been devoted since childhood to the sculpture collection of the Liebieghaus and the long tradition of civic involvement in her native city of Frankfurt/Main, she is passionate about reading newspapers, including the Frankfurter Allgemeine Zeitung.

A review of the volume of the second colloquium "Humankind and cosmos" made her aware of the activities of the foundation Forum für Verantwortung, and since then she has been one of the most steadfast attendees of the series of colloquiums.

In her case, it is not retrospection—even if her inimitable, cheery sense of self-irony when recounting the events of the 20th century as an contemporary witness captivates listeners—but her animated open-mindedness with a view to the present and especially the future which makes her an unconventional and fascinating grande dame with a passion for debate.

Since the 2005 colloquium "The future of the Earth—How much more can our planet take?" she has not only been convinced of the urgency of sustainability, but has actively supported the activities of Forum für Verantwortung with a personal, very generous donation. Charlotte Krämer does not consider her activities in the fields of culture and sustainability as contradictory, but as investments in making our society fit for the future—and for this I would like to thank her warmly.

(Text and Photo: am)



## SCIENTIFIC COLLOQUIUMS

In the spring of each year from 2002 to 2012 and in 2014, the foundation Forum für Verantwortung hosted a one-week colloquium at the European Academy of Otzenhausen. Internationally renowned scholars presented the current state of research on basic questions of life and urgent problems of our time in a generally comprehensible way, showed up options for action, and debated with participants across disciplinary boundaries. The target group of the colloquiums was predominantly seniors, but was broadened to include a younger audience as well. Over time, the focus of the colloquiums was increasingly on aspects of sustainable development.

From the very beginning, Prof. Ernst Peter Fischer has been the foundation's scientific advisor. With a Diplom in physics, a doctorate in biology, and a Habilitation in the history of science, he conceptualized the colloquiums on the natural sciences so that they made the difficult material fascinating and accessible.

Prof. Harald Welzer served as an advisor on sustainability. A social psychologist, he dedicated his efforts to broadening the foundation's interdisciplinary approach, simultaneously making clear that sustainability is first and foremost a cultural problem and only secondarily a technological-scientific one.

The contributions to the colloquiums held from 2002 to 2012 were published in edited volumes (softcover) by S. Fischer Verlag in the series "Forum für Verantwortung."

### Colloquiums

- 2014: From evolution to sustainability
- 2012: Pathways out of growth-driven society
- 2011: Dimensions of time
- 2010: Perspectives for sustainable development
- 2009: Evolution and culture of humankind
- 2008: The first 400 years of Christianity
- 2007: The origins of the modern world
- 2006: Secularization and the world religions
- 2005: The future of the Earth—How much more can our planet take?
- 2004: The cultural values of Europe
- 2003: Humankind and the cosmos
- 2002: Evolution



View of the forum, European Academy of Otzenhausen



2012



2011



2010



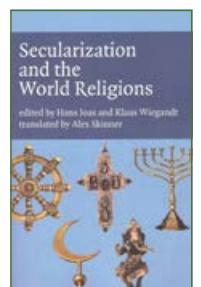
2009



2008



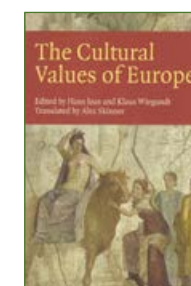
2007



2006



2005



2004



2003



2002

..... 2015 ■ 2014 ■ 2013 ■ 2012 ■ 2011 ■ 2010 ■ 2009 ■ 2008 ■ 2007 ■ 2006 ■ 2005 ■ 2004 ■ 2003 ■ 2002 ■ .....



# 12th colloquium 2014: From evolution to sustainability Saying farewell, looking back, looking forward

April 6-9, 2014, European Academy of Otzenhausen



The 12th colloquium, titled "From evolution to sustainability," fleshed out the links between the topics of the colloquiums, and was thus a successful conclusion of the series, which had begun in 2002. Klaus Wiegandt, who celebrated his 75th birthday in 2014, gave a very positive summary of these conferences he had initiated and to which he had attracted top speakers: Thanks to the active involvement of the most renowned scientists—including such well-known names as Werner Arber, Jared Diamond, and Dennis Meadows—it had been possible to present all the major scientifically and societally important topics he had envisioned at the very beginning in a both ambitious and readily comprehensible way. Over the years, a group of regular attendees had developed who enthusiastically came to Otzenhausen every year.



**Professor Ernst Peter Fischer**

From the beginning, Ernst Peter Fischer, who prepared and presided over most of the colloquiums together with Klaus Wiegandt, left his mark on the character and the special atmosphere. In his speech at the beginning of the final colloquium in April, 2014, Fischer, a renowned natural scientist and historian of science, looked back on the colloquium series as a whole:

*"The true is the whole, and we have tried to offer the whole in Otzenhausen. For a natural scientist like myself, it was a tremendous pleasure and an intellectual adventure to listen to Hans Joas or Friedrich Wilhelm Graf and to risk a dialogue with them. It remains astounding to me that I have been learning and reading practically all my life, and have then met people who not only—and in passing and unintentionally—show me my own limitations, which have remained despite all my efforts, but who simultaneously open up and offer pathways at the end of which I can take a new perspective on the whole, which I would like to know as the truth or which I would at least like to encounter. [...]"*

*Speakers can talk as much and as long as they want; they never succeed in being or providing the whole as individuals. The whole, that is both of us, the speaker and the listener, the lecturer and the audience. Taking a view of the whole in Otzenhausen not only displays all of science, but also the people who want to educate themselves in it and with it, thereby creating a new whole."*

Source: Excerpt from the speech by Ernst Peter Fischer at the 12th colloquium, April 2014, European Academy of Otzenhausen

## PROGRAM 2012

March 25, 2012

### Inaugural address

Klaus Wiegandt, founder and  
CEO of Forum für Verantwortung

**Lecture: Consumption and production in the  
industrialized nations: Central problems on  
the path toward sustainable development**

Klaus Wiegandt

### Lecture: Phenomena of prosperity

Prof. Wolfgang Ullrich,

Professor of Fine Arts and Media Theory, Karlsruhe University  
of Art and Design, Karlsruhe; Author; Docent; Consultant

March 26, 2012

**Lecture: What follows after the  
dominant culture of wastefulness?**

Dr. Harald Welzer

Director, FUTURZWEI—Stiftung Zukunftsfähigkeit;  
Professor of Transformation Design, University of Flensburg

**Lecture: Decoupling: Are constant growth and  
ecological sustainability compatible?**

Dr. Bernd Sommer

Sociologist; Researcher, Norbert Elias Center for Transfor-  
mation Design & Research (NEC), University of Flensburg

### Lecture: The commons as an economic system

Prof. Dirk Messner

Professor of Political Science, University of Duisburg-  
Essen; Director, German Development Institute, Bonn

Summary of the day and discussion

Tuesday, March 27, 2012

### Lecture: Political culture after the age of growth

Dr. Reinhard Loske

Chairman of the Study Group on Global Issues, German Council on  
Foreign Relations, Berlin; 2007 – 2011 Senator for Environment,  
Construction, Transportation, and European Affairs, Bremen

**Lecture: The significance of the labor  
market after the age of growth**

Prof. Hans Diefenbacher

Adjunct Professor of Economics, Alfred-Weber-Institute, Hei-  
delberg University (DE); Deputy Director, Forschungsstätte  
der Evangelischen Studiengemeinschaft e. V., Heidelberg

**Lecture: On the significance of the  
demand side for the energy transition.**

Prof. Lucia Reisch

Professor of Consumer Behaviour and Consumer  
Policy, Copenhagen Business School; Permanent Honor-  
ary Adjunct Professorship for Consumer Research and  
Consumer Policy, Zeppelin University, Friedrichshafen

Summary of the day and discussion

## PROGRAM 2014

April 6, 2014

### Inaugural address

Klaus Wiegandt, founder and CEO of Forum für Verantwortung

### The big picture

Prof. Ernst Peter Fischer

Professor of History of Science, Heidelberg University

April 7, 2014

**What makes humans human? Insights from  
the genome of prehistoric man**

Prof. Johannes Krause

Professor of Paleogenetics, University of Tübingen

**Why do we have such an oversized brain?  
Evolution of language, personality, and responsibility**

Prof. Josef H. Reichholf

Evolutionary biologist, Director of the Bavarian State  
Collection of Zoology (through 2010), Munich

**Asteroids and comets—Friends of life or enemies of humankind?**

Prof. Alan Harris

Senior Scientist, German Aerospace Center,  
Institute of Planetary Research, Berlin

Summary of the day and discussion

April 8, 2014

### The emergence of human rights

Prof. Hans Joas

Professor of Sociology, Fellow at the  
Freiburg Institute for Advanced Studies (FRIAS)

### Moral motives in economic activity

Prof. Jens Beckert

Professor of Sociology, Managing Director, Max Planck  
Institute for the Study of Societies, Cologne

### The risk paradox: The gap between reality and perception

Prof. Ortwin Renn

Professor of Environmental Sociology and  
Technology Assessment, University of Stuttgart;  
Member, Nachhaltigkeitsrat Baden-Württemberg

Summary of the day and discussion

April 9, 2014

**Can ecumenism succeed? The churches'  
contribution to the transformation of society**

Prof. Friedrich Wilhelm Graf

Professor of Systematic and Ethical Theology,  
Ludwig-Maximilians-Universität Munich

### The culture of sustainability

Ulrich Grober

Journalist and Author, Marl

Farewell remarks

Klaus Wiegandt and Prof. Dr. Ernst Peter Fischer

Excerpts from the programs 2012 and 2014

## 11th colloquium: Pathways out of growth-driven society

March 25-28, 2012, European Academy of Otzenhausen



Following the in-depth discussions during the previous colloquiums about the symptoms of global change, our ways of dealing with them, and future prospects, this colloquium was devoted explicitly to the key question of our time and thus the central cause of many non-sustainable developments: the dependence of modern societies on economic growth.

### Wege aus der Wachstumsgesellschaft (Pathways out of growth-driven society)

Harald Welzer, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2013  
ISBN 978-3-596-19616-6

SEE PAGE 41



In their preface to the edited volume documenting the colloquium, Harald Welzer and Klaus Wiegandt argue emphatically why the dogma of growth must be fundamentally questioned and solved and which approach the colloquium contributions pursue: *"(...) The fact that the push for growth is getting ever stronger and destroying the foundations for humanity's survival with ever greater furor is not a matter of fate; it can be changed. Of course, the path toward a post-growth society is not a walk in the park. It will involve losses of prosperity, more work performed by people themselves, less mobility, less consumption, but more prosperity in terms of time, quality of life, and health. And also something more, which is currently getting lost in the obsession with growth, the most important thing of all: the future."*

Source: Wege aus der Wachstumsgesellschaft, pp. 8-11, S. Fischer Verlag, 2013

## 10th colloquium: Dimensions of time

April 8-13, 2011, European Academy of Otzenhausen

Internationally renowned scholars of various disciplines address the topic of time. First, a definition of time is discussed from the perspectives of the natural sciences and the humanities, and then the question of how time is and should be dealt with. Everything comes down to the question of whether we are capable of living in a decelerated way.

With clocks dictating the tempo, our lives have verifiably and measurably become faster over the course of history. Time is becoming increasingly scarce: on the one hand, we must run ever faster just to keep up with the rat race, and at the same time, we attempt to maximize the number of actions and experiences per unit of time.

This analysis suggests the idea that rediscovering slowness and practicing deceleration is worthwhile. People should take the time available to them and belonging to them. Are the sustainability of a modern society and the concept of deceleration even still compatible? In particular: are capitalism and stopping to pause compatible? (Source: S. Fischer Verlag)

### Edited volume documenting the colloquium:

**Dimensionen der Zeit**  
**Die Entschleunigung unseres Lebens**  
**(Dimensions of time. Decelerating our lives)**  
Ernst Peter Fischer, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2012, ISBN: 978-3-596-19268-7

#### Lectures:

Time is not to be had for free | **Marion A. Weissenberger-Eibl**  
There is a time for everything, but I don't have any—How times are changing | **Karlheinz A. Geißler**  
Time symmetry and the arrow of time—From physical time to life time | **Klaus Mainzer**  
How we tick—Biorhythms and time in the body | **Till Roenneberg**  
Booming remembrance—A response to the acceleration of time? | **Etienne François**  
"And time—how strangely goes its ways"—Time in literature | **Michael Maar**  
Knowledge in time | **Volker Gerhardt**  
Sustainability and deceleration | **Stefan Rammler**  
What does deceleration mean, and to which end should we decelerate? | **Hartmut Rosa**  
Struggling for time for education—Education and the dissolution of boundaries | **Peter Euler**  
Benedictine life—Tried and tested expression and paradigm of a responsible way of dealing with the time of life? | **Ansgar Schmidt**  
"And you'll ascend in time to Man."—The deep time of evolution | **Ernst Peter Fischer**  
The ecology of time—On post-fossil times | **Martin Held**  
More and more income, but less and less time—Economic growth and its treadmills | **Mathias Binswanger**





9th colloquium: Perspectives for sustainable development

March 19-24, 2010, European Academy of Otzenhausen

What will the world look like in 2050? Scenarios for sustainability

Internationally renowned scholars from various disciplines took stock of matters of sustainability: What concrete steps have been taken so far, what has changed, and what will our lives and our world look like in the future? Small-scale issues—our consumer behavior, our diet, and our leisure time—as well as large-scale ones—the energy sector, the world of work, and global politics—are put up for discussion.

All of the relevant developments concerning sustainability in all societies around the world are going in the wrong direction. In order to give civil societies a wake-up call, we must dare to do a balancing act. This involves (1) painting a realistic picture of our well-nigh insatiable resource and energy consumption and their excessive burdens on the Earth’s ecosystems as well as our remaining options for action and (2) at the same time, getting the positive message across that a more sustainable world of tomorrow can provide more and new quality of life: for example, prosperity in terms of time, satisfying social relationships, health, happiness, and solidarity. (Source: S. Fischer Verlag)

Edited volume documenting the colloquium:

**Perspektiven einer nachhaltigen Entwicklung**  
**Wie sieht die Welt von morgen aus? (Perspectives for sustainable development. What will the world of tomorrow look like?)**  
Harald Welzer, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2011, ISBN: 978-3-596-18794-2



Professor Dennis L. Meadows

US economist Dennis L. Meadows, one of the intellectual fathers of the environmental movement, held the keynote speech at the 9th colloquium: “There is no alternative to sustainability.” He founded his argument warning of the incalculable consequences of excessively exploiting the Earth’s resources on computer-based simulations. Today, the lead author of “The Limits to Growth,” the report to the Club of Rome published in 1972 and updated in 1992 and 2004, could not be more defeatist. At the end of his scientific career, he has concluded that the urgently required transformation of societies toward sustainable development is failing particularly because of democracies. He considers it impossible to inform the general population about the extremely complex interconnections and impacts in a way that would permit the political community to tackle measures toward a real change of direction without incurring too much risk. The political community can and will become active only when climate change is perceptible and visible to each and every individual. But then it will be too late, Meadows believes; the process is irreversible. Nature will show us our limits and make sustainability a reality by forcing us to act sustainably. To Meadows, the radical nature of his culturally pessimistic, uncompromising analysis is incontrovertible, as Klaus Wiegandt learned during a thought-provoking conversation on a long walk with him following the vestiges of a Celtic refuge fort, the “Hunnenring” in northern Saarland. (am)



Klaus Wiegandt, Prof. Dennis L. Meadows, Prof. Udo J. Becker (left to right)

- Lectures:**  
There is no alternative to sustainability | **Dennis L. Meadows**  
Scenario: Ecologically sustainable economy | **Paul Ekins**  
Scenario: Energy sources | **Günther Hasinger**  
Scenario: Resources/Consumption | **Friedrich Schmidt-Bleek**  
Scenario: Entrepreneurship | **David Audretsch**  
Scenario: Mobility | **Udo J. Becker**  
Scenario: Food | **Klaus Hahlbrock**  
Scenario: The world of work | **Hans Diefenbacher**  
Scenario: Architecture/urban planning | **Friedrich von Borries**  
Scenario: Infection medicine | **Stefan H.E. Kaufmann**  
Scenario: Internet/Communication | **Paul J.J. Welfens**  
Scenario: Global governance architecture | **Dirk Messner**  
Scenario: Leisure time | **Amitai Etzioni**  
Can mankind survive the next 100,000 years? | **Lodewijk Woltjer**  
Sustainable democracy? | **Claus Leggewie**



## 8th colloquium: Evolution and culture of humankind

March 27-April 1, 2009, European Academy of Otzenhausen

The topic of the eighth colloquium was biological and cultural evolution and its significance for how people live together: from becoming human from a paleobiological and genetic perspective to various forms of social structures to the cultural achievements and unique characteristics of human beings.

The increasing desires of the growing global population result in constantly increasing energy consumption with incalculable consequences for climate change. They also entail ever greater consumption of land, resources, and water. Although we are researching all these questions and learn and know about them, we barely change our behavior at all. We have known for a long time that what will matter in the future is giving up this optimism about progress—the obsession with growth—and orienting our behavior toward the goal of sustainability. Sustainability, like any other culture, can be expected of people only if it does not contradict our nature. Getting to know it better from the perspective of evolution was the goal of this colloquium. (Source: S. Fischer Verlag)



### Edited volume documenting the colloquium:

#### Evolution und Kultur des Menschen (Evolution and culture of humankind)

Ernst Peter Fischer, Klaus Wiegandt (eds.)

S. Fischer Verlag, 2010, ISBN: 978-3-596-18721-8

#### Lectures:

From knowledge to action. The role of the individual and handling complexity | **Volker Linneweber**

Becoming human I—What we can learn from fossils | **Friedemann Schrenk**

Becoming human II—What we can learn from genomes | **Wolfgang Enard**

The history of the human body | **Robert D. Martin**

The evolution of reproductive strategies | **Eckart Voland**

Coevolution of cognitive capabilities and slow life history | **Carel van Schaik**

The grandmother effect. The evolution of our longevity | **Kristen Hawkes**

The organism that writes poetry | **Karl Eibl**

Biology following fashion. Darwin's aesthetics of ornament |

**Winfried Menninghaus**

Why do only humans have language and culture? | **Robin Dunbar**

Egoism creates community spirit. The problem of altruism | **Manfred Milinski**

The evolution of morals and the emergence of the law | **Hans Mohr**

Different by nature. On the emergence of the differences between the sexes |

**Doris Bischof-Köhler**

The violence of the future. What do people kill for? | **Harald Welzer**

"Light will be thrown on the origin of man and his history." Darwin's prophecy and its implementation | **Ernst Peter Fischer**

## 7th colloquium: The first 400 years of Christianity

March 7-12, 2008, European Academy of Otzenhausen

From the preaching of Jesus of Nazareth to Early Christianity to the end of antiquity: Internationally renowned scholars from various disciplines present the current state of research on Early Christianity. Throughout the colloquium, the focus is on the question whether and how the historical success of an originally marginal religious movement can be explained.



### Professor Friedrich Wilhelm Graf

Friedrich Wilhelm Graf, a Protestant theologian and professor emeritus of systematic and ethical theology at Ludwig-Maximilians-Universität Munich, supported the foundation's activities by contributing a chapter titled "Protestantism" to the edited volume "Secularization and the World Religions" as well as by developing the concept for and realizing the colloquium "The origins of Christianity" as well as the volume documenting it. His circumspect theological research, in which he aims to

keep a critical distance from his subject, combined with his incessant efforts to work toward sustainability in relevant parts of our society and to take a stand on important questions concerning the present with calmness and clarity are always highly enriching for Forum für Verantwortung. (am)

### Edited volume documenting the colloquium:

#### Die Anfänge des Christentums (The beginnings of Christianity)

Friedrich Wilhelm Graf, Klaus Wiegandt (eds.)

S. Fischer Verlag, 2009, ISBN: 978-3-596-18277-0

#### Lectures:

Politics and pastoral care—Concepts of political order in early Christianity | **Hartmut Leppin**

The Old Testament as the Holy Scripture of early Christianity and as part of the Christian Bible | **Jan Christian Gertz**

The literary and theological formation of early Christianity | **Udo Schnelle**

The historical Jesus | **Annette Merz**

The biographies of two apostles: Peter and Paul | **Thomas Söding**

Religious communication in epistolary literature | **Oda Wischmeyer**

Creating traditions through gospels | **Hans-Josef Klauck**

Christianity at the margins of society | **Reinhard Feldmeier**

Formation of the canon | **Andreas Lindemann**

"We too are religious, and our religion is simple." The martyrs and their role in the conflicts between Christianity and the Roman state authority | **Hans Reinhard Seeliger**

The system and development of the religion of the Roman Empire (Augustus to Theodosius I) | **Hubert Cancik**

The Hellenization of Christianity: The first councils | **Christoph Marksches**

The discovery of church authority: Augustine | **Roland Kany**

The influence of early Christianity within Europe | **Kurt Flasch**



## 6th Colloquium: The origins of the modern world

March 31-April 5, 2007, European Academy of Otzenhausen

The temple ruins of Angkor Wat, the pyramids of the Maya—traces of cultures that flourished long ago. Why has the course of history been so disparate on the different continents? US evolutionary biologist Jared Diamond, political scientist James Robinson, and other renowned scholars draw historical comparisons and trace the forces moving history.

This colloquium's speakers attempted to take a new and scientifically precisely structured view of world history and explored the question how it came about that poverty and prosperity are distributed so unevenly among nations. (Source: S. Fischer Verlag)

### Edited volume documenting the colloquium:

**Die Ursprünge der modernen Welt**  
(The origins of the modern world)  
James A. Robinson, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2008, ISBN: 978-3-596-17934-3



### Professor Jared Diamond

In his 1998 Pulitzer Prize-winning book "Guns, Germs and Steel," US evolutionary biologist, geographer, and physiologist Jared Diamond seeks out the factors determining unequal development. We succeeded in recruiting him to conceptualize a colloquium titled "The origins of the modern world" and focusing on the impact of institutions for the development of societies. In his own scientific career, Jared Diamond epitomizes a transdisciplinary approach that generates a new, enriching view of the history of global development in an exchange with the humanities and the natural sciences. This opening up to novel, unaccustomed, not always conflict-free, and controversially debated perspectives is mirrored in his selection of internationally renowned scholars whom he was able to recruit to speak at the colloquium.

He felt close ties to the foundation's activities in the field of sustainability that were being developed at the time and enriched them by adding fascinating aspects in personal conversations during the colloquium. (am)



Colloquium speakers



Prof. Şevket Pamuk, Klaus Wiegandt



Prof. Ernst Peter Fischer with speakers on the podium



Prof. Jürgen Brosius, Prof. Klaus Hahlbrock (left to right)

### Lectures:

Human history and natural experiments | **Jared Diamond**  
The French Revolution as a natural experiment | **James A. Robinson**  
Climate in the currents of history | **Mark A. Cane**  
The world's first farmers, and the origins of modern peoples and languages | **Peter Bellwood**  
The role of warfare in the development of social systems | **Steven LeBlanc**  
The Enlightenment and European economic change | **Joel Mokyr**  
The evolution of cultures | **Jean E. Enslinger**  
Uses and abuses of the Ancient Maya | **David L. Webster**  
The appropriation of territory and the rise of inequalities among ancient Native American societies | **Sissel Schroeder**  
Institutional change and the longevity of the Ottoman Empire | **Şevket Pamuk**  
Continuity and discontinuity in the interior of Southern Africa 73,000 BC to the present | **Neil Parsons**  
Medieval roots of Europe's developmental edge | **Michael Mitterauer**  
Enigmas of Angkor | **David Chandler**  
The Medieval origins of "the European miracle" | **Jan Luiten van Zanden**  
The durability of the Chinese Empire: Implications for China's possible futures | **Bin Wong**



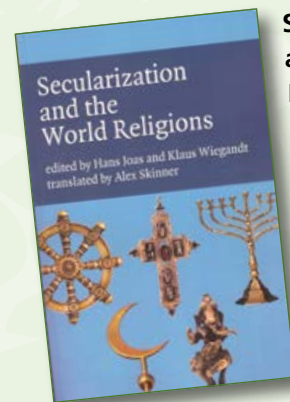
## 5th colloquium: Secularization and the world religions

March 31-April 5, 2006, European Academy of Otzenhausen

The question of religion, its contemporary and future significance, and its role in state and society is currently perceived by many people as being of great urgency and is widely discussed within the public sphere. But it has also long been one of the core topics of the historically oriented social sciences. The immense stock of knowledge furnished by the history of religion and religious studies, theology, sociology and history can promote greater awareness of the contemporary global religious situation and its links with politics and economics, and counter rash hypotheses such as the "clash of civilizations."

This volume is concerned with the connections between religions and the social world and with the extent, limits and futures of secularization. The first part deals with major religious traditions and their explicit or implicit ideas about the individual, social and political order. The second part gives an overview of the religious situation in important geographical areas. Additional contributions analyse the legal organization of the relationship between state and religion in a global perspective and the role of the natural sciences in the process of secularization. The contributors include internationally renowned scholars such as Winfried Brugger, José Casanova, Friedrich Wilhelm Graf, Hans Joas, Hans G. Kippenberg, Gudrun Krämer, David Martin, Eckart Otto and Rudolf Wagner. (Source: Liverpool University Press)

Edited volume documenting the colloquium:



**Secularization and the world religions**  
Hans Joas, Klaus Wiegandt (eds.)  
translated by Alex Skinner  
Liverpool University Press, 2009,  
ISBN: 978-1-846-31188-8

"Secularization and the World Religions" was originally published in German (S. Fischer Verlag, 2007).



### Lectures:

Society, state and religion: Their relationship from the perspective of the world religions: An introduction | **Hans Joas**  
Catholic Christianity | **Karl Cardinal Lehmann**  
Protestantism | **Friedrich Wilhelm Graf**  
Judaism | **Eckart Otto**  
Islam | **Gudrun Krämer**  
Hinduism | **Heinrich von Stietencron**  
Confucianism and Buddhism | **Rudolf G. Wagner**  
Secularization in the early modern period | **Etienne François**  
From hostility through recognition to identification: State-church models and their relationship to freedom | **Winfried Brugger**  
Secularization and the sciences | **Ernst Peter Fischer**  
The religious situation in Europe | **José Casanova**  
The religious situation in the USA | **Hans Joas**  
The religious situation in East Asia | **Joachim Gentz**  
The relevance of the European model of secularization in Latin America and Africa | **David Martin**  
The religious dimension of the Middle East conflict | **Hans Gerhard Kippenberg**



### Professor Hans Joas

The foundation's colloquiums focusing on the humanities and social sciences carry the distinct imprint of Hans Joas, at the time Director of the Max Weber Center at the University of Erfurt and Professor of Sociology and Social Thought at the University of Chicago. At his suggestion, and in the context of his scientific direction of the 3rd colloquium "The cultural values of Europe" (p. 29), values were considered to be "emotionally highly laden notions of what is desirable." The intensive interdisciplinary debate on values in times of rapid societal transformation was published in German, English, Polish, and Ukrainian in the volume documenting the colloquium, which he coedited.

Hans Joas also conceptualized the 5th colloquium "Secularization and the world religions." The guiding question as to the current and future relationship between society, state, and religion was discussed in its many facets and made accessible to a broader public in the volume with the same title. With his critical engagement, always generously supporting the foundation's goals, and his clear orientation to urgent questions moving society, he is deeply involved in laying the foundations for the cultural dimension of sustainability. (am)



#### 4th colloquium: The future of the Earth—How much more can our planet take?

March 11-16, 2005, European Academy of Otzenhausen

Internationally renowned experts of various disciplines debate boundaries, opportunities, and scenarios for the future of our planet and global society.

The concern that humankind's activities are growing beyond all measure and are using up the Earth and its resources so quickly that in the end, no basis for a future worth living will remain has been worrying scientists since the 1970s. At the time, people referred to the "Limits to Growth," which was also the title of the famous report to the Club of Rome whose publication in 1972 marked the beginning of the change in thinking. (Source: foreword)

*"At the end of the colloquium, it became clear that we will not be able to solve the major problems of the future unless our societies develop toward sustainability. However, we must be aware that this process of transformation will take decades. We would like our conference in Otzenhausen to be understood as a contribution to supporting this process toward a sustainable society."* (Klaus Wiegandt)

The colloquium "The future of the Earth—How much more can our planet take?" prompted the establishment of the educational initiative **Encouraging Sustainability** (see page 67).

##### Edited volume documenting the colloquium:

**Die Zukunft der Erde – Was verträgt unser Planet noch? (The future of the Earth—How much more can our planet take?)**  
Ernst Peter Fischer, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2006, ISBN 978-3-596-17126-2

##### Lectures:

The past thousand years—An ecological retrospective | **Josef H. Reichholf**  
Turning points in environmental history | **Joachim Radkau**  
The population explosion | **Rainer Münz**  
The changing climate—Global warming and the ozone hole | **Mojib Latif**  
The energy of the future—The future of energy sources | **Gerd Eisenbeiß**  
Can the Earth still feed the human population in the future? | **Klaus Hahlbrock**  
Blue gold: Water | **Wolfram Mauser**  
Global change and the future of the oceans | **Katherine Richardson**  
New threats for our health—A challenge for biomedicine | **William A. Haseltine**  
Resistance to and solutions for change | **Ernst Ulrich von Weizsäcker**  
Sustainable development: Holy grail or wholly achievable? | **David W. Pearce**  
No sustainability without dematerialization | **Friedrich Schmidt-Bleek**  
Making sustainable development measurable | **Karl Schoer**  
The world on the edge | **Vandana Shiva**  
The American Empire in the second nuclear age? | **Jonathan Schell**



#### 3rd colloquium: The Cultural Values of Europe

March 26-31, 2004, European Academy of Otzenhausen

What is the cultural identity of Europe? Are there specifically European values? Questions such as these are at the center of a considerable number of political and scholarly debates in contemporary Europe. In this international best seller, a group of acclaimed historians, sociologists and philosophers—including Orlando Patterson, S. N. Eisenstadt, Mark Mazower, Hans Joas and Wolfgang Schluchter explore the value traditions of Europe to produce a fascinating and thought-provoking image of contemporary European self-understanding. The volume combines two approaches, looking both at specific cultural traditions (for example, "Athens and Jerusalem") and at specific values (for example "freedom", "rationality").

Boasting some of the leading European thinkers, The Cultural Values of Europe will be required reading for anyone hoping to understand the common cultural ground in Europe.

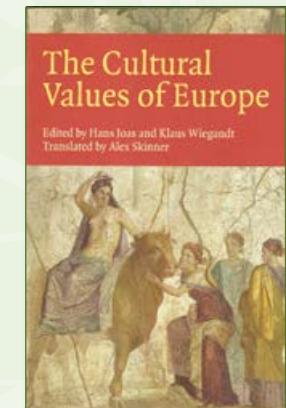
##### Edited volume documenting the colloquium:

**The Cultural Values of Europe**  
Hans Joas and Klaus Wiegandt (eds.)  
Alex Skinner (translation)  
Liverpool University Press, 2008  
ISBN: 978-1-846-31139-0

"The Cultural Values of Europe" has also been published in German (S. Fischer Verlag, 2005), Polish (IFiS PAN, 2012), and Ukrainian (2015).

##### Lectures:

The cultural values of Europe: An introduction | **Hans Joas**  
The place of the gods—The "Axial Age" as the discovery of transcendence | **Shmuel N. Eisenstadt**  
The Greco-Roman tradition | **Christian Meier**  
The value of introspection | **Kurt Flasch**  
How Europe became diverse | **Michael Borgolte**  
Rationality—A specifically European characteristic? | **Wolfgang Schluchter**  
The status of the Enlightenment in German history | **Reinhart Koselleck**  
The value of freedom | **Orlando Patterson**  
The Judeo-Christian tradition | **Wolfgang Huber**  
The affirmation of ordinary life | **Wolfgang Reinhard**  
The idea of self-realization | **Christoph Menke**  
The dark continent—Europe and totalitarianism | **Mark Mazower**  
Value change in Europe from the perspective of empirical social research | **Helmut Thome**  
Does Europe have a cultural identity? | **Peter Wagner**  
The realities of cultural struggles | **Dieter Senghaas**



**2nd colloquium: Humankind and the cosmos****April 4-9, 2003, European Academy of Otzenhausen**

Internationally renowned physicists, biologists, and philosophers addressed the cosmos—its origin, life in it, and the image that can be derived from studying it scientifically.

Exploring the cosmos and understanding the universe are among the oldest and newest desires of humankind. For example, exploration of the sky in the form of astronomy was the first science created by humankind, even in antiquity.

Of course, people would like to know in detail how the great cosmic house in which they spend their lives is constructed. But they would also like to know whether it is there for them alone or whether other intelligent life exists besides them in the universe. If we are ever successful in entering into contact with extraterrestrial life, this would surely be a turning point in the history of humankind. For this reason, speakers discussed the probability of such an encounter taking place against the background of the comprehensive question whether the universe is more inimical to or supportive of life. (Source: S. Fischer Verlag)

**Edited volume documenting the colloquium:****Mensch und Kosmos****Unser Bild des Universums****(Humankind and the cosmos. Our image of the universe)**

Ernst Peter Fischer, Klaus Wiegandt (eds.)

S. Fischer Verlag, 2004, ISBN: 978-3-596-16215-4

**Lectures:**

The scientific conquest of the cosmos—The history of its explorations |

**Ernst Peter Fischer**Humankind, Earth, cosmos | **Rolf Emmermann**The time of the world—Newton's clockwork and Einstein's corrections | **Jürgen Audretsch**Einstein's happiest thought—His observations on the world as a whole | **Harald Fritzsch**Expansion on a large scale—The standard model of the cosmos | **Rudolf Kippenhahn**The world in small scale—High-energy physics and dealing with nothing | **Henning Genz**

The big bang and background radiation: Astronomers and the enigma of creation |

**Gerhard Börner**Extraterrestrial intelligent life is improbable | **Irven DeVore**Cosmology, life and the anthropic principle | **John D. Barrow**Cosmology—epistemology—anthropology: What can we know, and what do we want to know? | **Jürgen Mittelstraß**The observer at the end of time—Reflections of a philosopher | **Bernulf Kanitscheider**Does the universe have a meaning? | **Hubert Reeves**Understanding creation in the context of the natural sciences | **Stefan Bauberger, S.J.****1st colloquium: Evolution****March 17-23, 2002, European Academy of Otzenhausen**

A panorama of modern evolutionary biology, genetics, and horizons of development of biotechnology.

Today, we are concerned with the following questions about evolution: Why, out of millions of species, did evolution engender just a single one endowed with reason and culture? Why do we have consciousness, and why is it not reproduced analogously to the genome? Why do we still not have satisfactory answers to the burning questions about where we came from, why, and where we are going? How do new species come about? Can all our qualities be understood as adaptations? Will evolution be controlled by human beings in the future? Is it permissible for us, with our limited understanding, to intervene in reproduction—and in the process form or deform?

No single scientific discipline can answer these elementary and far-reaching questions in a way that would be satisfactory for us all. For this reason, the colloquium took an interdisciplinary approach to evolution. (Source: S. Fischer Verlag)

**Professor Werner Arber**

At the opening of the foundation's first colloquium on March 17, 2002, Klaus Wiegandt spoke about how prior to the event, he had time and again entered unknown territory, not least because nobody knew about the foundation, which had nothing to show but its entry into the official registry. Particularly encouraging and inspiring was the enormously

positive reaction of Swiss Nobel laureate Prof. Werner Arber—a contact made by Prof. Ernst Peter Fischer. He immediately supported the young foundation's project. The fact that he spontaneously agreed to speak on the topic of evolution, which at the time was the subject of heated debate, in a generally comprehensible way as part of an ambitious interdisciplinary program taking place outside of universities opened the door for other internationally renowned scientists to agree to speak as well. The success of this first colloquium was decisive for firmly establishing the colloquium series. (am)

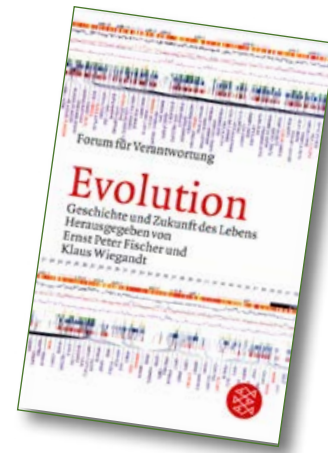


**Edited volume documenting the colloquium:****Evolution****Geschichte und Zukunft des Lebens****(Evolution. The history and future of life)**

Ernst Peter Fischer, Klaus Wiegandt (eds.)

S. Fischer Verlag, 2003, ISBN: 978-3-596-15905-9

Please note: unfortunately, the book is out of print.

**Lectures:**Darwin's radical idea—The discovery and acceptance of evolution | **Ernst Peter Fischer**What evolution is—Basic scientific knowledge and tools | **Axel Meyer**Rewriting the Origin of Species—Is man just another animal? | **Steve Jones**

The enigma of becoming human—Decisive stages in the evolution of humans |

**Josef H. Reichholf**Genetic variation in the human population | **David B. Goldstein**A naturalist's thoughts on some of the challenges of the 21st century | **John C. Avise**Rerunning the tape—How likely is the emergence of human beings? | **Simon Conway Morris**Brains increasing in size—The central nervous system and its development | **Wolf Singer**The old brain and the new problems—An evolutionary epistemology | **Gerhard Vollmer**Evolution, sex and death—Darwinian aspects of human life | **Tom Kirkwood**Evolution and aging—Predetermined program or random deterioration? | **Roland Prinzinger**The politics of evolution—Darwin's ideas throughout history | **Hans-Jörg Rheinberger**Genetic variations—Genetic engineering and its significance for evolution | **Werner Arber**The value of biodiversity—Humankind's threats to species | **Josef H. Reichholf**Understanding the origin of species—Evolutionary research today | **Axel Meyer**Remaking Eden—Genetic engineering and the future of humankind | **Lee M. Silver****COLLOQUIUMS FOR YOUNG SCHOLARS****Pathways out of growth-driven society—annually since 2012****European Academy of Otzenhausen**

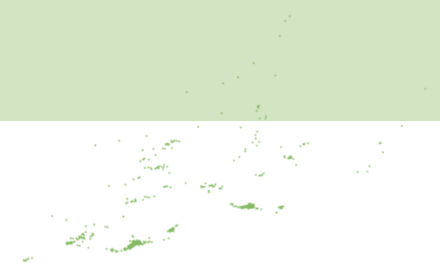
In 2012—parallel to the “classic” colloquium on “Pathways out of growth-driven society”—a new colloquium format exclusively for doctoral and master's candidates on this key topic of sustainability was initiated. The purpose of this event, which has been taking place annually ever since, is to spark or intensify interdisciplinary discourse among young scholars on pathways toward sustainable development. The colloquiums for young scholars will be continued in the future and will form a focal area of the foundation's work.

**Dates**

March 11-13, 2016 (in preparation); March 27-29, 2015; April 4-6, 2014;  
March 9-11, 2013; March 23-25, 2012

The response to our invitations to participate in the colloquiums is very promising for the future: Roughly 100 students and young scientists from across Germany, but also from universities in Switzerland, Austria, Sweden, and Great Britain apply for the 50 slots available in each colloquium. They represent an impressive diversity of disciplines: economics, natural sciences, engineering, philosophy, education, and cultural sciences.

In workshops—for which we intentionally select participants from different disciplines—attendees present concrete ideas for “post-growth projects” in very creative and accessible ways. A working group from the 2012 colloquium published its results titled “Encouraging sustainability—time and space to experience sustainable and decelerated activities” in the edited volume “Wege aus der Wachstumsgesellschaft” (S. Fischer Verlag, 2013).





### Lectures and speakers at the colloquiums for young scholars 2012-2015:

#### (Re)productivity and (post)growth

**Prof. Adelheid Biesecker (2015)**

Professor (em.) of Economic Theory, University of Bremen; major focus on the caring economy

#### Beating capitalism at its own game? (2014)

**Right life in the wrong one (2015) · Prof. Friedrich von Borries**

Architect; Professor of Design Theory, Hochschule für bildende Künste, Hamburg

#### How what is emerged—Paths toward growth-driven society · Dr. Michaela Christ (2015)

Director, Department of Diachronic Transformation Studies, Norbert Elias Center for Transformation Design & Research (NEC), University of Flensburg

#### Labor-based society without growth? · Prof. Hans Diefenbacher (2013)

Adjunct Professor of Economics, Alfred-Weber-Institute, Heidelberg University (DE); Deputy Director, Forschungsstätte der Evangelischen Studiengemeinschaft e. V., Heidelberg

#### Different forms of life and economic activity in everyday life · Dr. Friederike Habermann (2014)

Economist and Historian, Author of "Halbinseln gegen den Strom"

#### Regionalization as a departure from the belief in progress? · Gerolf Hanke (2014)

Doctoral Candidate, dissertation on "The Culture of Sufficiency," University of Flensburg; Recipient of the Kapp-Forschungspreis of the Vereinigung Ökologischer Ökonomie, 2012

#### Lessons in Lessening: Learning from the shrinking city? · Dr.-Ing. Saskia Hebert (2014)

Architect, (subsolar\* architektur & stadtforschung); Director, lived/space/lab, Berlin University of the Arts

#### Commons and post-growth · Silke Helfrich (2015)

Commons Activist and Publicist; 1999-2007 Overseas Staff Member for Central America, Mexico, and Cuba, Heinrich Böll Foundation

#### The role of politics and trade unions (panel discussion) · Dietmar Hexel (2015)

Member, Executive Board, Federation of German Trade Unions; Expert Member, Bundestag Committee of Inquiry "Growth, Prosperity, Quality of Life"

#### The political culture of a post-growth economy · Dr. Reinhard Loske (2012, 2013)

Chairman of the Study Group on Global Issues, German Council on Foreign Relations, Berlin; 1992 - 1998 Head of the Research Group "Sustainable Germany" at the Wuppertal Institute for Climate, Environment and Energy; 1998 - 2007 Member of the Bundestag; 2007 - 2011 Senator for Environment, Construction, Transportation, and European Affairs, Bremen



Dr. Reinhard Loske,  
Klaus Wiegandt, Prof. Ernst  
Peter Fischer (left to right)



Prof.  
Hans Diefenbacher

#### The culture of the commons · Prof. Dirk Messner (2012)

Professor of Political Science, University of Duisburg-Essen; Director, German Development Institute, Bonn; Vice Chair of the German Advisory Council on Global Change

#### Post-growth: a project for the radical transformation of society

**Prof. Barbara Muraca (2015)**

Professor and Environmental Philosopher, Oregon State University

#### The role of politics and trade unions (panel discussion, 2015) ·

**Growth, prosperity, quality of life (2014) · Dr. Hermann E. Ott**

Wuppertal Institute for Climate, Environment and Energy; former Member, Bundestag Committee of Inquiry "Growth, Prosperity, Quality of Life"

#### The post-growth economy · Prof. Niko Paech (2012, 2013, 2014)

Adjunct Professor, Chair of Production and Environment (PUM), University of Oldenburg

#### Green growth and rebound · Tilman Santarius (2015)

Scientific Author, Topics: Climate Policy, International Trade Policy, Sustainable Economic Activity, Global Justice

#### The great transformation—the path toward sustainable development

**Prof. Uwe Schneidewind (2012, 2014)**

President, Wuppertal Institute for Climate, Environment and Energy; Professor of Sustainable Transition Management, University of Wuppertal

#### No right life in the wrong one? Growth-neutral businesses in a growth-oriented

economy (2015) Decoupling? Why "green growth" is not a sufficient answer

to the ecological crisis (2014) Decoupling: Are constant growth and ecological

sustainability compatible? (2012, 2013) · **Dr. Bernd Sommer**

Researcher, Norbert Elias Center for Transformation Design & Research (NEC), University of Flensburg

#### Wanting to have. On consumption and other phenomena of prosperity

**Prof. Wolfgang Ullrich (2012, 2013)**

Professor of Fine Arts and Media Theory, Karlsruhe University of Art and Design, Karlsruhe; Author; Docent; Consultant

#### Less is less (2015) From expansive to reductive modernity (2014) Transformation or transformations? The path toward sustainable modernity (2013)

**Prof. Harald Welzer**

Director, FUTURZWEI—Stiftung Zukunftsfähigkeit; Professor of Transformation Design, University of Flensburg

#### Consumption and production in the industrialized nations: The central problem on the path toward sustainable development · Klaus Wiegandt (2012, 2013)

The colloquiums were headed by Prof. Harald Welzer—in 2012 and 2013 jointly with Prof. Ernst Peter Fischer and in 2014 with Dr. Hannes Petrischak—and Klaus Wiegandt delivered the inaugural address at each colloquium.



Lecture by  
Prof. Niko Paech



## ZEIT WISSEN AWARD ENCOURAGING SUSTAINABILITY

Since 2013, the educational initiative Encouraging Sustainability and the science magazine ZEIT WISSEN have partnered in offering a sustainability prize.

The award honors initiatives from the business and scientific communities that make outstanding contributions to the future of our society in the field of sustainable development by developing and applying new, exemplary concepts. In so doing, the educational initiative Encouraging Sustainability and ZEIT WISSEN would like to draw attention to pioneers of sustainable development in the midst of our society today—people who distinguish themselves by particular dedication to imparting knowledge or to putting this knowledge into practice in the realm of sustainability.

From the names put forward both by readers of ZEIT WISSEN and members of the jury, the jury selects three nominees in each of the two categories—knowledge and action—and decides on the winners.

Besides the initiators of the prize—Klaus Wiegandt and Andreas Sentker (ZEIT WISSEN)—jury members include Dr. h.c. August Oetker, Margret Suckale (Member of the Board of Executive Directors, BASF), and Martina Sandrock as representatives of the business community. The jury is rounded out by Lenelis Kruse-Graumann, professor of social and environmental psychology; Prof. Harald Welzer, Director of FUTURZWEI.Stiftung Zukunftsfähigkeit; Prof. Friedrich von Borries, architect; and Klaus Peter Beck (ASKO EUROPA-STIFTUNG), who represent the scientific community and society in general.

Each of the awards in the categories knowledge and action carries a 10,000 euro prize.



View of Hamburg from  
the EMPORIO tower

MORE INFORMATION: [WWW.MUT-ZUR-NACHHALTIGKEIT.ZEIT.DE](http://WWW.MUT-ZUR-NACHHALTIGKEIT.ZEIT.DE)



## Awardees 2015

The award ceremony for the prizewinners on February 24, 2015 in Hamburg

The highlight of the award ceremony was the ceremonial address by sociologist Prof. Ortwin Renn, whose convincing and powerful argument elucidated the extent to which we overestimate statistically rather marginal risks in our daily lives, but simultaneously underestimate the actually threatening, systemic risks such as climate change.

*"We cannot afford to learn from our mistakes in this matter. We must take action before it is too late. Of course, this assumes a high degree of preventive disaster and risk management."* (Prof. Ortwin Renn)

With these words, Ortwin Renn linked up seamlessly to the case Klaus Wiegandt had made in his opening address in emphasizing that climate mitigation is a question of the survival of humankind that we are currently not addressing at all appropriately, even though concrete, future-oriented measures certainly would be possible.

SEE PAGE 42



Prof. Ortwin Renn

## Category KNOWLEDGE: Van Bo Le-Mentzel

ZEIT WISSEN and the initiative Encouraging Sustainability acknowledge Van Bo Le-Mentzel's wide-ranging activities. His outstanding projects include "Hartz IV Moebel," furniture that people can build themselves from low-priced materials following instructions made available for free; "Karma Chakhs," fair-trade shoes made of environmentally sound materials; or the democratic stipend "dScholarship."

It was of central importance to the jury that Le-Mentzel combines "sustainability concepts such as upcycling and fair production in particularly creative ways." He provides guidance for people to take sustainability-oriented action themselves and gets through to segments of the population beyond those typically interested in sustainability with his "intelligent and unusual ideas."

## Category ACTION: Solarkiosk GmbH

ZEIT WISSEN and the initiative Encouraging Sustainability acknowledge Solarkiosk GmbH for their energy-autonomous kiosks and thus the idea proposed by Andreas Spieß, attorney and CEO of Solarkiosk GmbH, who developed the solar kiosks in collaboration with Lars Krückeberg's architecture firm GRAFT. The kiosks provide people in remote areas of Africa with access to electricity. With solar panels and a "mini smart grid," a kiosk supplies enough power for mobile phones, cooling, and other uses for an entire town. Operated as franchises, the kiosks each create up to five jobs.



Awardees 2014

The award ceremony for the prizewinners on February 27, 2014 in Hamburg



Category KNOWLEDGE: Prof. Niko Paech

The initiative Encouraging Sustainability and ZEIT WISSEN acknowledge Niko Paech, who is considered a forward thinker on the post-growth economy. A “prophet of less,” Niko Paech is concerned with the period following unlimited growth and the structural transformation required to achieve it. His horizon thus transcends the existing economic system, and he thinks that the world can be saved only if people no longer live beyond their means.

Category ACTION: Eatable City Andernach

The initiative Encouraging Sustainability and ZEIT WISSEN acknowledge the innovative approach taken since 2010 by the city of Andernach in managing its open spaces. Sustainability, biodiversity, and urban agriculture guide the redesign of the city’s open spaces so that people can experience them not only with their eyes, but with all their senses, and can use them for recreation, as vegetable gardens, and as important places in their lives.

# Program

Facilitator: Inka Schneider

CONFERENCE

Opening  
*Klaus Wiegandt*, founder and CEO, foundation Forum für Verantwortung

Ceremonial address: The Ethics of the Global Commons  
*Prof. Dirk Messner* Director, German Development Institute (DIE)

Introductory remarks to the panel discussion  
*Franz Fehrenbach* Chairman of the Supervisory Board, Robert Bosch GmbH

The panelists:

*Prof. Friedrich von Borries* Architect und Professor of Design Theory, Hochschule für bildende Künste Hamburg  
*Dr. Juliane Kronen* Founder and CEO, innatura gGmbH & Chair of the Board, Right Livelihood Award Foundation (Alternative Nobel Prize)  
*Franz Fehrenbach* Chairman of the Supervisory Board, Robert Bosch GmbH  
*Prof. Lenelis Kruse-Graumann* Professor of Social and Environmental Psychology, Heidelberg University  
*Boris Palmer* Mayor, university town of Tübingen  
*Prof. Harald Welzer* Co-founder and Director, FuturZwei foundation  
*Andreas Sentker* (Facilitator) Editor-in-chief, ZEIT WISSEN

COMMUNICATION BREAK

AWARD PRESENTATION

CATEGORY KNOWLEDGE  
Laudatory speech  
*Prof. Uwe Schneidewind*  
President Wuppertal Institute for Climate, Environment and Energy GmbH

CATEGORY ACTION  
Laudatory speech  
*Dr. h.c. August Oetker*  
Partner, Dr. August Oetker KG Awardees 2013

Awardees 2013

The award ceremony for the prizewinners on February 21, 2013 in Hamburg



Category KNOWLEDGE: Leuphana University of Lüneburg

The initiative Encouraging Sustainability and ZEIT WISSEN acknowledge the concept of Leuphana University of Lüneburg, which integrates the subject of sustainability into all areas of academic life. The reason for the jury’s decision: “The university interlinks knowledge and action in an exemplary fashion.” The fact that the university promotes the education of young people to become active citizens of 21st-century civil society played a central role. For example, Leuphana supports students’ social civic engagement in numerous projects. The jury called the university a “pioneer of sustainable development in the midst of our society.”



The nominees

Category ACTION: Heini Staudinger

The initiative Encouraging Sustainability and ZEIT WISSEN acknowledge the comprehensive concept of sustainability that Heini Staudinger puts into practice in his own life. His maxim for social, ecological, and economic sustainability: “You can only cut down as many trees as will grow back.” The jury emphasizes that Staudinger defies the constraints of globalization with his Waldviertler shoe company, which offers long-term employment in one of the poorest regions of Austria. The jury praises the entrepreneur’s “high ecological and social aspirations.” “In the midst of our consumer society, which is oriented toward efficiency and performance, his firm is guided by the principle of modesty.”



Swapping jackets: Heini Staudinger and Dr. h.c. August Oetker (left to right)



CURRENT PUBLICATIONS

Entwürfe für eine Welt mit Zukunft (Blueprints for a world with a future)

The first volumes in a new book series dealing with concrete blueprints for the future were published in 2013/14; volumes on urban planning, the labor market, democracy, food, and education are in preparation. Klaus Wiegandt and Harald Welzer, Director, FUTURZWEI.Stiftung Zukunftsfähigkeit are the series editors. The series continues the series on the future of the Earth (S. Fischer Verlag, 2007-2009; English: The Sustainability Project, Haus Publishing) (p. 70).



**Fortschrittsgeschichten**  
**Für einen guten Umgang mit Technik**  
(Stories about progress—Handling technology well)  
Marcel Hänggi  
S. Fischer Verlag, 2015, ISBN 978-3-596-03220-4

What kind of progress do we want? A new perception of technology that is both realistic and critical is urgently needed, for the looming destruction of the foundations on which our lives depend, for which we and our technologies are largely responsible, forces us to seek a sustainable way of dealing with technology. In twelve stories about progress, Swiss technology expert Marcel Hänggi examines how technological change comes about, how we perceive it, and how it benefits society. His deliberations result in a vision of a world 30 years in the future that handles technology responsibly. (Source: S. Fischer Verlag)



**Schubumkehr**  
**Die Zukunft der Mobilität** (Thrust reversal—The future of mobility)  
Stephan Rammler  
S. Fischer Verlag, 2014, ISBN: 978-3-596-03079-8

Mobility is of fundamental importance for our economy, which is based on the division of labor, as well as for our private lifestyles. Yet it is extremely product- and resource-intensive and poses great challenges to the future. In light of a growing global population and scarce resources, it is clear that we need a drastic change of direction, a thrust reversal. Stephan Rammler develops the image of a future with innovative technologies, wise economic strategies, and a changed political culture. An exciting journey to the world of tomorrow! (Source: S. Fischer Verlag)



**Zwei Grad mehr in Deutschland**  
**Wie der Klimawandel unseren Alltag verändern wird** (Two degrees more in Germany—How climate change will change our everyday lives)  
Friedrich-Wilhelm Gerstengarbe, Harald Welzer (eds.)  
S. Fischer Verlag, 2013, ISBN: 978-3-596-18910-6

Climate scientist Friedrich-Wilhelm Gerstengarbe, social scientist Harald Welzer, and their team of authors outline a scenario that depicts the consequences of climate change for everyday life, the economic system, and the social welfare systems in Germany. (Source: S. Fischer Verlag)



**Wege aus der Wachstumsgesellschaft**  
(Pathways out of growth-driven society)  
Harald Welzer, Klaus Wiegandt (eds.)  
S. Fischer Verlag, 2013  
ISBN: 978-3-596-19616-6

SEE PAGE 18

In the volume “Wege aus der Wachstumsgesellschaft,” the authors discuss the problems of the industrialized nations on the path toward sustainable development. Internationally renowned scientists depict possibilities what life could look like—and how attractive it is if it is not driven by wasteful consumption and constant growth. (Source: S. Fischer Verlag)



Klaus Wiegandt,  
Prof. Harald Welzer (left to right)



Foreword by the editors of the new book series

The 19th and 20th centuries were the epoch of expansive modernity. Increasingly large parts of the world followed the path of industrial societies and growth-based economies; their populations experienced material and above all immaterial progress: societies became democratic states based on freedom and the rule of law, and struggles for occupational safety, education, health care, and social welfare systems were successful. In the 21st century, as globalization has drawn practically the entire planet into the vortex of growth-based economic activity, but has by no means established freedom, democracy, and the law across the board, we are faced with the challenge of securing the standard of civilization we have attained, for it is increasingly under pressure from environmental devastation, competition for resources, and global warming, to name just a few of the most serious problems. What is a modern society like that no longer follows the principle of perpetual expansion, but instead secures a good life with just a fifth of today’s consumption of materials and energy? Nobody can answer that question at present; there is no master plan for such a type of modernity. That is why we need images of the future that make the quality of life in a sustainable model of modernity imaginable and that make its blueprints for different types of mobility, building, and housing seem attractive and not forbidding.

For this reason, we asked scientists to sketch out concrete utopias of future models of living and economic activity for the book series “Blueprints for a world with a future.” Concrete utopias—that means scenarios of future realities that can be created on the basis of the technological and social means available today. Only against the background of such images of the future can people consider which steps forward make sense today in order to embark in the direction of a desirable future. In other words: in the absence of images of the future, active policies and the role that civil society plays for such policies are impossible to imagine. If the political community and civil society are fixated exclusively on maintaining an ever more fragile status quo, they lose the ability to move toward any other goal, remaining frozen in the present, which is a deadly position in a changing world.

Following the 18 volumes of the preceding series, which was also published by Fischer Taschenbuch Verlag, and which presented a scientific survey of the natural status quo of the Earth in its individual dimensions, from the oceans to population growth, we now turn our attention from the present to the future in the hope of showing concrete perspectives for the ways in which a sustainable modern society could be shaped, perspectives that encourage the political community as well as citizens to use the options for action at their disposal and to embark on paths to the good life.

Harald Welzer and Klaus Wiegandt, July 2014  
Source: Schubumkehr, pp. 10-11, S. Fischer Verlag, 2014



**Das Risikoparadox**  
**Warum wir uns vor dem Falschen fürchten**  
(The risk paradox—Why we are afraid of the wrong things)  
Ortwin Renn  
S. Fischer Verlag, 2014  
ISBN: 978-3-596-19811-5

It seems we are constantly becoming aware of new dangers—avian flu, swine fever, electric smog, crime, and the like confront us in the media almost every day. Fear of such “false” risks and dangers blocks our view of the “real” risks that threaten us and future generations. Internationally renowned scientist Ortwin Renn demonstrates which ones they are, why we underestimate them, and how we can deal with them responsibly. (Source: S. Fischer Verlag)

Excerpt from the foreword by Klaus Wiegandt

(...) With this book, Ortwin Renn has created an outstanding foundation for each individual citizen’s decision-making processes. Readers are provided with a concept of the underrated risks in our society as well as the overrated ones, and also with a manual for risk-aware, competent, and risk-responsible judgment and action. In addition to describing the risks mentioned above, Renn also explains the psychological and sociological reasons why people often under- or overestimate risks. Readers are presented at times astounding insights from a wealth of scientific disciplines in four sections. The first section presents risks and threats that seem significantly more dramatic than they actually are, and the second section gives reasons for insufficient assessment of risks. The third section is devoted to risks that are often underestimated, and systemic characteristics are presented along with their potential to threaten society. Sustainability is at the center of the fourth section; Ortwin Renn shows how a prudent risk policy can also contribute to the goals of sustainable development. He opens our eyes to the Earth’s carrying capacity, shows why resilience is to be given higher priority than efficiency and why social justice deserves precedence over optimal resource justice, and presents a new model of governance as well as ways to overcome the tragedy of the commons.

At the same time, the author also specifies reforms and changes required for a successful discourse toward sustainable development in our society. In this context, his proposal of an analytical-deliberative discourse among four partners—the policy and scientific communities, civil society, and the business community—as a complement to representative democracy deserves particular attention. The main goal of this discourse is not consensus, but intensive and transparent participation on the part of significant parts of our society. (...)

Source: Risikoparadox, pp. 11–12, S. Fischer Verlag, 2014

SUPPORTED PUBLICATIONS  
FUTURZWEI.Stiftung Zukunftsfähigkeit



**Der FUTURZWEI Zukunftsalmanach 2015/16 · Geschichten vom guten Umgang mit der Welt** (The FUTURZWEI almanac of the future 2015/16—Stories about handling the world well)  
Harald Welzer, Dana Giesecke, Luise Tremel (eds.)  
S. Fischer Verlag, 2014 · ISBN: 978-3-596-03049-1

Without alternatives? By no means. The second FUTURZWEI almanac of the future tells 83 stories about alternatives to the leading culture of growth and waste. The focus is on the political, and as always on the future perfect (translator’s note: Futur Zwei is the German term for future perfect): Will we have been prepared for less material, less consumption, and less injustice? Five writers talk about how we could deal with raw materials and consumer products in the near future. (Source: S. Fischer Verlag)

**Der FUTURZWEI Zukunftsalmanach 2013 · Geschichten vom guten Umgang mit der Welt** (The FUTURZWEI future almanac 2013—Stories about handling the world well)  
Stefan Rammner, Harald Welzer (eds.)  
S. Fischer Verlag, 2012 · ISBN: 978-3-596-19420-9

We will have been active!—Pathways toward a grandchild-compatible future  
The 21st century needs visions—stories about better lifestyles, stories about a successful future. Even today, the development of a sustainable society is driven forward by successful projects: responsible entrepreneurs, creative school principals, start-ups by students, as well as members of the public use the latitude they have to develop groundbreaking and sustainable economic strategies and lifestyles. The FUTURZWEI almanac of the future presents their stories, thus providing role models for sustainable economic models and lifestyles and showing that alternative concepts to the current guiding culture of growth and waste can be fun. (Source: S. Fischer Verlag)

Both publications were supported financially by the foundation Forum für Verantwortung.



**Professor Harald Welzer**  
The collaboration with social psychologist Harald Welzer, Professor of Transformation Design, University of Flensburg and Director of FUTURZWEI.Stiftung Zukunftsfähigkeit, and his team is highly enriching for the work of the foundation Forum für Verantwortung in terms of mobilizing civil society concerning sustainability. FUTURZWEI, financed by the entrepreneurial couple Hanna and Dieter Paulmann, collects success stories beyond scientific insights and moral appeals. Even today, there are examples and role models for sustainable living and sustainable economic activity in a wide range of places in society, for example in schools, businesses, public institutions, or in the private realm. FUTURZWEI tells their stories in the form of an “archive of the future” on the foundation’s website ([www.futurzwei.org](http://www.futurzwei.org)) and in the future almanacs published by S. Fischer Verlag in order to make these pioneers politically effective and visible to society. Harald Welzer works with Forum für Verantwortung in particular by conceptualizing and running the colloquiums for young scholars and by editing the books in the series “Blueprints for a world with a future” together with Klaus Wiegandt.



**2052: A Global Forecast for the Next Forty Years**

Jørgen Randers

Chelsea Green Publishing Co.

ISBN: 978-1-603-58421-0

**2052. Der neue Bericht an den Club of Rome**

Jørgen Randers

oekom verlag, 2012

ISBN: 978-3-865-81398-5



Jørgen Randers, one of the co-authors of “The Limits to Growth” (1972), reveals in his newest book that, like Dennis Meadows, he has come to the bitter conclusion at the end of his career as an economist that humankind will not succeed on the path to sustainable development. In order to satisfy his curiosity as well as to try to motivate society to take action nonetheless, he tried in this book to illustrate a well-founded impression about the development of the next 40 years—no wishful thinking, no listing of all the measures necessary to achieve sustainable development.

To avoid this prognosis being limited by the boundaries of his own knowledge, he asked 35 scientists and other experts to tell him what they believed would happen with absolute certainty by 2052.

Jørgen Randers’s shocking confession: “I have gotten to know this future, grieved about the unnecessary suffering involved, and finally come to peace with the lost global opportunity.” The German translation from the English was funded by Forum für Verantwortung. The German edition was launched with the author as well as oekom verlag in Frankfurt am Main on October 12, 2012. (Text: Klaus Wiegandt)



**Endspiel: Wie wir das Schicksal der Tropischen Regenwälder noch wenden können**  
**Der neue Bericht an den Club of Rome (On the edge. The state and fate of the world's tropical rainforests. Report to the Club of Rome)**

Claude Martin

oekom verlag, 2015

ISBN: 978-3-865-81708-2

To some, they are paradise; others still call them “green hell.” Practically no other living environment provokes as much fascination and is under such threat at the same time: cattle herds, palm oil plantations, and the run on tropical timber are putting pressure on the rain forests from all sides. The situation is as difficult to comprehend as the forests themselves: On the one hand, forests are cleared illegally, on the other, the government supports reforestation; in many parts of the tropics, the amount of forest land is declining dramatically, in some regions, it is constant, and in many places, undeveloped primeval forests still exist besides impoverished and isolated forms. Claude Martin summarizes the current status quo in the new “Report to the Club of Rome”: He observes the regionally differentiated causes for cutting down the rain forest, assesses the chances that protective measures will succeed, and ventures a prognosis for the future. The question as to how the rain forests will react to climate change is of particular interest. The scientific community agrees that a time bomb is ticking here if the forest collapses and goes up in flames because the climate is getting drier and drier. To Claude Martin, a grand finale is currently taking place at the Equator—and nobody really knows how it will end. (Source: oekom verlag)

Both German publications were supported by the foundation Forum für Verantwortung.

**Wurzeln für die lebende Stadt**

**Wie wir die Eigenverantwortung von Stadtteilen stärken können und warum diese mehr Wertschätzung verdienen (Roots for the living city. How we can strengthen neighborhoods’ own responsibility and why they deserve more appreciation)**

Harris C.M. Tiddens

oekom verlag, 2014 · ISBN: 978-3-865-81468-5

If emotion and reason are separated in a person, we call it dissociation—a serious health condition. Something similar is to be observed in cities, a kind of societal dissociation: citizens are natural emotional experts for their neighborhoods. Yet local politicians and government keep more and more of a distance from them, having retreated to higher levels such as municipal districts. This separation is a decisive cause for depoliticization and citizens being enraged. The completely new, practically oriented approach presented here helps citizens as well as the political, business, and scientific communities to shape neighborhoods and cities in a sustainable way. (Source: oekom verlag)

**Cheaponomics: Warum billig zu teuer ist**  
**(Cheaponomics: The High Costs of Low Prices)**

Michael Carolan

oekom verlag, 2015, ISBN-13: 978-3-86581-734-1

(Routledge, 2014, ISBN 978-0-415-73515-5)



Do you really think you are getting a good deal when given that free mobile phone for switching service providers, if a multinational retailer undercuts its competitors or by the fact that food is relatively cheaper today in many countries than ever before? Think again! As Michael Carolan clearly shows in this compelling book, cheapness is an illusion. (Source: Routledge)

The German translation was supported by the foundation Forum für Verantwortung.



**Der Wandel ist machbar · Manifest für ein neues Amerika**  
**(America The Possible · Manifesto for a New Economy)**

James Gustave Speth

oekom verlag, 2013 · ISBN: 978-3-865-81438-8

(Yale University Press · ISBN: 978-0-300-19834-8)

The book identifies a dozen features of the American political economy—the country’s basic operating system—where transformative change is essential. It spells out the specific changes that are needed to move toward a new political economy—one in which the true priority is to sustain people and planet. Supported by a compelling “theory of change” that explains how system change can come to America, the book also presents a vision of political, social, and economic life in a renewed America. Speth envisions a future that will be well worth fighting for. In short, this is a book about the American future and the strong possibility that we yet have it in ourselves to use our freedom and our democracy in powerful ways to create something fine, a reborn America, for our children and grandchildren.

The German translation was supported by the foundation Forum für Verantwortung.

The Earth system

Our current “Western” patterns of consumption and production entail billions of interventions in the Earth system day by day. That is why we must examine how this system works: we must be able to truly understand the consequences of our actions and find the proper starting points for the transformation toward sustainability.

Mankind as a driving force in the Earth system

Geologists call the current epoch—the roughly 12,000 years since the end of the most recent ice age—the Holocene. Broad segments of the scientific community have recognized that mankind has become the strongest driving force on Earth and that this marks the beginning of a new geological epoch called the “Anthropocene.” A global increase in atmospheric greenhouse gas concentrations since the end of the 18th century can be demonstrated by analyzing the air trapped in polar ice. This could be the basis for defining this point in time as the onset of the Anthropocene. The growing number of people and the increasing resource intensity of their lifestyle are accelerating the transformation of the Earth’s land areas, the changes in the atmosphere, and the interventions in the oceans (Crutzen 2002).

Boundaries and tipping elements in the Earth system

Because of the complex interlinkages between the Earth system’s components, interventions in the system impact not only one of its parts, but cause interactions with other parts of the system. Climate change, loss of biological diversity, water scarcity, soil degradation, and the accumulation of pollutants are environmental changes that intensify one another, sometimes substantially, so that the total effect of global environmental changes is greater than the sum of individual effects (WBGU 2011). Positive feedback loops can further intensify the effect of an action via the feedback it triggers—one example: ice-covered surfaces melt at warmer temperatures, reducing the albedo of the Earth’s surface and in turn resulting in further warming. Temporal and spatial lags are particularly tricky, as consequences of our actions are perceived late and countermeasures take effect only with long delays. Certain processes can bring about abrupt behavior of the system if a certain threshold is exceeded (Jäger 2009).

In the case of such processes, the danger is that the Earth system enters a new state that is not beneficial for the existence of human societies. An analysis of the current situation demonstrates that we have already considerably overstepped the “safety margins” in the Earth system in at least three areas, namely climate change, biodiversity loss, and our interventions in the nitrogen cycle (Rockström et al. 2009). Within the Earth system, a number of tipping elements have been identified whose fate will be decided by human activities in this century, for example melting of the Greenland ice sheet, the collapse of the Amazonian rainforest, the bistability of the Indian summer monsoon, or the loss of boreal forests. Many of these tipping elements are linked to significant positive feedback loops, especially concerning increasing global warming. We should assume, however, that we are not yet aware of all the tipping elements relevant for our societies’ political action (Lenton et al. 2008).

Socioeconomic processes and the Earth system

As the Earth system services are faced with increasing pressure around the globe due to mankind’s transforming forces, humans have become an important component of the Earth system. The most recent phase of the Anthropocene is characterized by the “great acceleration,” which began roughly in 1950, following World War II: Statistics on the most diverse topics document impressively the rapid multiplication of economic activities and consumption, driven mostly by the economic activities in the Western industrialized countries. There is evidence for changes in the Earth system parallel to these developments: the concentrations of the greenhouse gases carbon dioxide, laughing gas, and methane, overfishing of the oceans, or loss of tropical forests display similar “growth rates.” All social and economic processes are coupled to other parts of the Earth system, such as the climate and the oceans. In this regard, one can certainly speak of a social-ecological—geophysical system at the global level. The consequence is that the social and economic processes at the global scale—which manifest themselves in globalized trade, the financial world, and global communication, among other areas—have significant effects on other parts of the system, such as the atmosphere and the biosphere (Steffen et al. 2011).

Changes in living conditions have significant social consequences. Climate change deepens inequalities in the conditions for living and survival, both internationally and in many cases also within individual countries. Climate change often exacerbates the situation in regions already suffering from depleted soils and water scarcity, unavoidably leading to migration and refugee flows. Intensifying competition for resources such as land and water is always a potential cause of violence. Fragile societies in which climate changes can lead to domestic violent conflicts, civil wars, and genocides are at particularly high risk: here, ecological problems intensify and accelerate the structural grounds for conflicts, such as denationalization, emergence of markets of violence, and the marginalization of population groups (Welzer 2008).

Condensed version of the article “The systemic nature of sustainability” by Hannes Petrischak in: W. Huncke, J. Kerwer & A. Röming (eds.): Wege in die Nachhaltigkeit, Forum hlz, Hessische Landeszentrale für politische Bildung, Wiesbaden, 27-42.

In early 2013, the volume “Wege in die Nachhaltigkeit” (Pathways to sustainability) was published in the series “forum hlz” of the Hessian State Centre for Civic Education, with the support of Forum für Verantwortung. This volume emphasizes aspects of the sustainability debate that are particularly relevant to society; some are the subject of controversial debate.

**forum hlz: Wege in die Nachhaltigkeit.**  
**Die Rolle von Medien, Politik und Wirtschaft bei der Gestaltung unserer Zukunft (Pathways to sustainability. The role of the media, political, and business communities in shaping our future)**  
Wolfram Huncke, Jürgen Kerwer, Angelika Röming (eds.), 2013  
“What we definitely seek to achieve with this book: an animated discussion about the necessity of sustainable transformation with a value system in which concepts such as moderation, frugality, and “having enough” attain meaning again. Perhaps the vision of the often discussed “city of the future” will deliver new points of reference for new social venues and new marketplaces where citizens discuss things and lay open their plans for their lives.” (The editors)

Inhalt	
Vorwort.....	
Klaus Wiegandt Einführung: Nachhaltigkeit – Die besondere Verantwortung für Politik, Medien und Wissenschaft.....	
Hannes Petrischak Das Systemische der Nachhaltigkeit.....	
Michael Hüther / Klaus Hafemann / Markus Mill „Kein Wohlstand ohne Wachstum“.....	
Niko Paech / Björn Paech Vom Wachstumsdogma zur Postwachstumsökonomie.....	
Hermann-Josef Wagner Energieversorgung unter zentralen Gesichtspunkten.....	
Stefan Lechtenböhmer / Valentin Espert Energie unter dezentralem Aspekt.....	
Wolfgang Stark Kann Nachhaltigkeit gesellschaftlich partizipativ erreicht werden? über Partizipation, Bürgerengagement und Zivilgesellschaft.....	
Michael Kopatz Die soziale-kulturelle Transformation.....	
Rainer Klüthing Nachhaltigkeit in den Medien – Beobachtungen aus der journalistischen Praxis.....	
Zu den Autoren.....	



CONTINUING EDUCATION EVENTS

Sustainability for journalists

An important prerequisite for a successful public discourse on sustainability is well-founded reporting and analysis of the matters at hand in the media. The practice of assigning journalists to specific desks often stands in the way of presenting sustainability topics appropriately with their overarching aspects. All too often, sustainability is relegated to the environmental desk—provided one exists.

The complexity of the subject matter is challenging not only for scientists and educators, but especially also for journalists. In addition, “balanced reporting” poses the risk that individual opinions diverging from the broad scientific consensus, for example climate skeptics’ arguments that have long been disproven objectively, are granted a disproportionately large amount of space. Since journalistic representations have a strong influence on public opinion, sustainability as a central subject area of the future is of particular importance in journalists’ training and continuing education.

For this reason, continuing education for journalists is an important focus of the foundation’s activities. To date, the following activities have been carried out:

- Seminars at the European Academy of Otzenhausen and the Evangelische Akademie Tutzing
- Support of the Certificate Program in Sustainability and Journalism at Leuphana University of Lüneburg.
- Support of the media and research forum [www.gruener-journalismus.de](http://www.gruener-journalismus.de) at Hochschule Darmstadt—University of Applied Sciences

Certificate Program in Sustainability and Journalism  
Leuphana University of Lüneburg

The Professional School at Leuphana University of Lüneburg has been offering a Certificate Program in Sustainability and Journalism since October, 2012. It enables media professionals to deepen their knowledge of the various subject areas relating to sustainability at the master’s level. The one-year part-time program covers all aspects of presenting green topics in the media.

The foundation Forum für Verantwortung supports the certificate program, for example, by granting scholarships to students in the academic years 2012/13 and 2013/14. The foundation’s goal is to support the presentation of research findings on current and future problems of our society in a generally comprehensible fashion and to encourage a responsible public debate with the scientific community. The certificate program is headed by Prof. Gerd Michelsen, UNESCO Chair in Higher Education for Sustainable Development, and supported by Leuphana University staff members Dr. Daniel Fischer (through 2013) and Robin Marwege.



Source: Leuphana University of Lüneburg

Green portal for journalists—[www.gruener-journalismus.de](http://www.gruener-journalismus.de)  
The first web portal for environment, sustainability, and journalism

Within the framework of a not-for-profit educational project, the Hochschule Darmstadt—University of Applied Sciences developed a web portal for journalists to support their work on sustainability topics. Conceptualized by journalists for journalists, it is tailored to the demands of their daily work. The portal went live in January, 2014—developed and implemented by professors Peter Seeger and Torsten Schäfer.

The foundation Forum für Verantwortung provided the funding to develop and implement the portal.



Prof. Torsten Schäfer

Continuing education for teachers

Even though sustainable development has long been considered a central challenge of our century, it is not firmly established within our educational system. As early as 1992, the guiding principle of sustainable development was laid down at the groundbreaking UN conference in Rio de Janeiro, and education was mentioned as the most important instrument. If education for sustainable development had been incorporated systematically and as an obligatory cross-cutting topic in kindergartens, schools, and universities at the time, the preconditions for the necessary societal transformation would be far better today. That is why continuing education for teachers is one of the most important elements of the educational initiative Encouraging Sustainability.

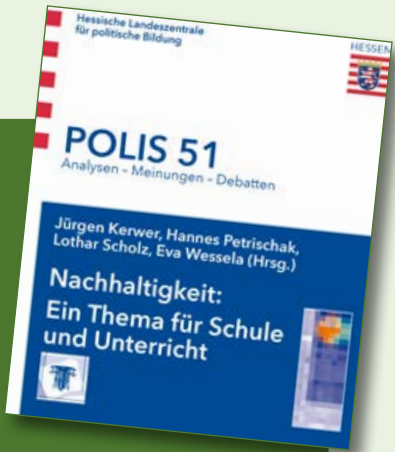


At the seminar

**Polis 51 – Nachhaltigkeit:**  
**Ein Thema für Schule und Unterricht**  
(Polis 51—Sustainability:  
A topic for schools and teaching, 2009)

Jürgen Kerwer, Hannes Petrischak,  
Lothar Scholz, Eva Wessela (eds.)

The projects for schools in general and for teaching that were developed by participants and resulted from the continuing education series or encouraged and intensified by it are of particular importance in practice. In this way, the continuing education events have succeeded in providing impulses and insights with direct effects on teaching in the classroom.



Continuing education series for teachers with cooperation partners from Hesse and Saarland

Against this background, the sponsors of the educational initiative Encouraging Sustainability, in cooperation with the Hessian State Centre for Civic Education and the Education Authority Darmstadt-Dieburg, implemented a series of continuing education events for teachers in which the participants were mentored for a year. The saarländische Landesinstitut für Pädagogik und Medien (Saarland Institute for Education and Media, LPM) has been involved since 2009 as well, so from then on, teachers from Hesse and Saarland alike have been able to participate. The same year, Petra Lauermann took over this responsibility at Forum für Verantwortung (after Dr. Hannes Petrischak had mentored the first class), and she has worked closely with Eva Wessela (EAO), Jürgen Kerwer and Daniel Baumgärtner (HLZ), Dr. Lothar Scholz (Education Authority), Christiane Bull (Education Authority/HLZ), and Catherine Haab/Mentz (LPM).



Petra Lauermann

The continuing education events for teachers have been conceptualized to be in accordance with the concept of “Gestaltungskompetenz” (a comprehensive concept for education for sustainable development), but they also impart factual knowledge about sustainable development, i.e., about global challenges (the Earth system, over-exploitation of resources, excessive stress on ecosystems), their causes, the current state of research, and options for action at school and in society in general.

In this way, sustainability is supposed to become a part of the school development process itself in order to transcend the level of projects carried out only for a limited period of time. The teachers are also supposed to develop concrete projects for their own schools. If possible, at least two teachers from each participating school are to be involved in order to be able to overcome hurdles and challenges when implementing the ideas developed as a team. The initial and final seminars took place at the European Academy of Otzenhausen; the seminars in between at the participating schools in Hesse and later also in Saarland. The book series on the future of the Earth (p. 69) and the educational modules (p. 78) form the basis of the continuing education series in terms of content and methods. In addition, numerous book series authors have been invited to speak at the seminars to give the teachers the opportunity to discuss questions intensively with Prof. Hermann-Josef Wagner, Prof. Bernd Meyer, Prof. Klaus Hahlbrock, or Priv.-Doz. Dr. Dirk Solte, among others.

Outcomes

From the beginning, the interdisciplinary, activating approach spanning schools showed surprisingly clearly that each and every subject taught at school can make a contribution to sustainable development.

Many participants explicitly emphasized that learning about sustainable development and the discourse with renowned scientists were of outstanding value to them.



At first, one obstacle to recruiting participants was the perception of numerous teachers that they would have to grapple with sustainability on top of all their other responsibilities (and in part without the support from their principals). Yet in the course of the continuing education events, this was often transformed into the realization that the cross-cutting subject of sustainability could make their teaching more interesting.

Other teachers had already been intensively dedicated to sustainability and could network with others during the continuing education events. During these events, and because of them, some schools successfully enshrined sustainability in their school profiles. The German UNESCO Commission distinguished some of the projects as official projects of the Decade of Education for Sustainable Development, among them Louise-Schröder-Schule in Wiesbaden with its virtual learning company “Parkhotel Wiesbaden KG,” a curriculum for apprentices in the hospitality industry, and the public lecture series at the International Forum of the Bergdorf Community School in Seeheim-Jugenheim (with numerous authors of the book series).

**In preparation: Pilot project on teacher training**

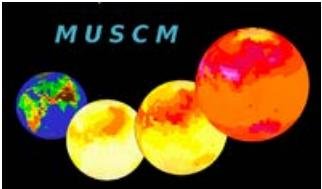
Following the successful series of continuing education events for teachers, the goal is to have sustainability become a cross-cutting topic of school curricula and to incorporate it firmly in teacher training. For this reason, Forum für Verantwortung, the European Academy of Otzenhausen, and the Hessian State Centre for Civic Education are collaborating with the Studienseminar für Gymnasien (training institution for teachers at academic-track high schools) in Wiesbaden on a multi-year pilot project beginning in 2015 to incorporate the topics from Encouraging Sustainability into teacher training. The process will be accompanied and evaluated by Dr. Daniel Fischer (Leuphana University of Lüneburg.).

Some teachers initiated Educational Sustainability Days at their schools in Hesse and Saarland (some as a result of their continuing education), which they held either at the European Academy of Otzenhausen or at their schools, with the support and participation of the educational initiative Encouraging Sustainability. Usually, an introductory lecture on the Earth system was followed by interdisciplinary workshops on sustainability topics.

*This associative image (drawn by Dr. Lothar Scholz) was part of the evaluation of the first continuing education series for teachers ending in February, 2009. Participants were to localize themselves in the landscape—for example on a boat, departing for new shores, or approaching the peak of a mountain.*



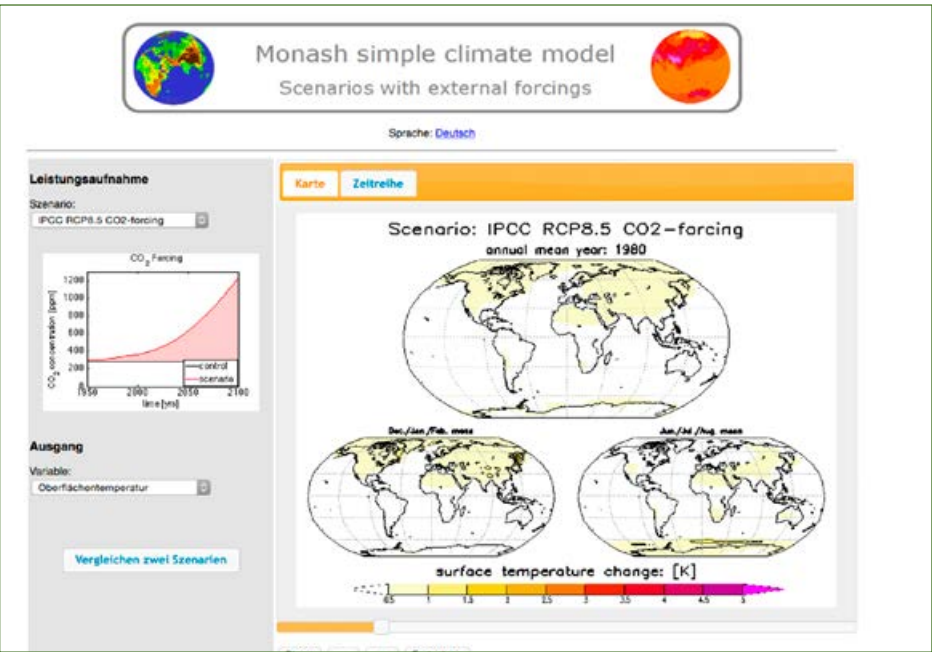
**Monash University Simple Climate Model (MUSCM)**



The German Climate Computing Centre (DKRZ) is working on adapting the Monash Simple Climate Model for use at German schools and by the German-speaking public. The model, a test version of which is currently running at Monash University (Melbourne, Australia), simulates the most important physical climate processes and is also applied to scenarios of the future development of the climate. Even though it is highly simplified, the results are comparable to those of professional climate models.

In the summer of 2014, the MUSCM was transferred from the server at Monash University in Melbourne to a server at the DKRZ, and it is visible on the Internet. It will be pared down, and its navigation will be reworked and simplified again for use at schools. Its German translation will also be implemented gradually. A number of schools in Hamburg and Schleswig-Holstein are already using the model in the School Project on Climate Change.

The foundation Forum für Verantwortung supported the German-language implementation of the project.



Source: <http://maths-simpleclimatemodel-dev.maths.monash.edu/overview.html>  
April 6, 2015

MORE INFORMATION: [HTTP:// MSCM.DKRZ.DE](http://MSCM.DKRZ.DE)

Continuing education on sustainability  
for business executives and employees

Businesses are at the focus of education for sustainable development in several respects: They themselves can make processes and production conditions more sustainable by taking criteria such as efficiency, regionality, seasonality, durability, or underlying social conditions into account when selecting materials, suppliers, products, and services. In addition, they can achieve a competitive advantage if they take a pioneering role by offering consumers, who will be even better informed in the future, more sustainable alternatives to conventional products; ensuring transparency by means of certifications and labels, e.g. with respect to reducing CO<sub>2</sub> emissions and/or resource and water consumption; and by taking action for sustainability proactively, which makes for good advertising.

This requires a systemic understanding of the interconnections within the various sustainability topics above and beyond the usual corporate social responsibility reports in order to analyze the effects of one's own entrepreneurial actions and to be able to make changes at the decisive points. For this reason, the foundation Forum für Verantwortung has conducted continuing education events in several businesses and also for trade associations since the educational initiative Encouraging Sustainability was established. For example, Klaus Wiegandt has spoken frequently to audiences of specialists and executives about the responsibility of businesses for sustainable development and then conducted intense discussions with them about production processes, possible changes, and overcoming obstructive underlying conditions. Dr. Hannes Petrischak presented the Earth system and explained how our current economic activities are directly linked to the overuse of resources and excessive stress on ecosystems.

Representatives of the textile, food, chemical, mechanical engineering, packaging, financial, and agricultural industries, among others, have taken advantage of such training events in businesses. In addition, events were organized through junior managers' organizations, in regional trade associations, in forums and conferences at universities, as well as in professional training centers for executives and young leaders, both tailored to individual industries and across industries. Some training events took place in the context of seminars at the European Academy of Otzenhausen; however, the majority were held on-site in businesses or at their conference centers.



Interjection: Biodiversity and education for sustainable development

Besides climate change, the loss of biodiversity is one of the largest problems for which human-kind is responsible. Biodiversity encompasses the diversity of species and habitats, genetic diversity, and all their interrelationships. The total number of species on Earth is unknown. It may lie between eight and 100 million; not even two million species have been described scientifically. Diversity is concentrated above all in hot spots in the tropical rain forests. Every day we lose a number of species by cutting down and burning down unimaginably large areas of rain forest.

Consumer behavior and mass extinction

Yet this is by no means as distant from us as it sounds: our consumer behavior is also to blame. Soy for feeding our barn-raised, factory-farmed cattle is cultivated where the rain forest used to grow, and in Indonesia, forests are cut down to establish palm oil plantations. The marine ecosystems are under pressure as well: pollution (oil, plastic), warming, overfishing and acidification (because of the increasing concentration of CO<sub>2</sub> in the atmosphere) are endangering the diversity of life in the oceans, most of which is also still unidentified. Overall, it is foreseeable that we are on the path to the sixth great mass extinction in the history of the Earth. The losses of diversity, however, also destroy or destabilize the major ecosystems, which also play important roles in driving the carbon and water cycles.

Ecosystem services

The Millennium Ecosystem Assessment, published in 2005, broadly introduced the concept of ecosystem services into the debate about sustainability. Humans' quality of life is directly dependent on the quality of ecosystem services. Security, access to indispensable resources, health, social relationships, and individual freedom suffer massively if ecosystem services are impaired. The concept of ecosystem services explicitly does not negate nature's intrinsic value. It also does not aim to allocate a purely economic value to every component of nature. Instead, this concept is intended to elucidate that human life and economic activity are dependent upon nature and make use of nature. Yet markets do not account for nature's services or accord them value appropriately. That is why they are granted far too little significance in political decision-making.

Humans and nature

Humans and nature are by no means mutually exclusive, on the contrary: there is an enormous abundance of species in structurally rich cultural landscapes in the temperate zones, and this is even true of cities. Yet numerous species are now on the Red List because of overfertilization and ongoing losses of structures. Globally speaking, climate change is considered an additional threat to biodiversity, and the CO<sub>2</sub> emissions from burning rain forests contribute massively to climate change. Recognizing these interrelated developments and designing options for action to counter them is an important part of education for sustainable development. That is why it is of great importance to generate an emotional connection to the fascinating interrelationships in nature as a foundation for teaching basic knowledge. (Text: Hannes Petrischak)

Excerpt from the conference program

SEMINARS ON SUSTAINABILITY

Seminars on biodiversity

On the transformation of nature in the greater region  
Taking stock and scenarios for the development of biodiversity  
in the course of global warming and land-use changes  
Public conference  
May 24-26, 2013, European Academy of Otzenhausen



Guided tour with Dr. Steffen Caspari

Global warming is changing nature. The Greater Region SaarLor-Lux, encompassing Rhineland-Palatinate, Saarland, Lorraine, Luxembourg, and Wallonia, is particularly instructive in terms of current and future developments. In the landscapes along the Rhine, Nahe, Moselle, Saar, Blies, and Meuse Rivers, which enjoy warm temperatures, (sub-)Mediterranean species can spread, whereas others "seek refuge" in the cool higher-altitude areas of the Hunsrueck, Palatinate Forest, Eifel, Ardennes, and Ösling. At the same time, and to a much more dramatic extent in the short term, species and habitats are increasingly under pressure because of land-use changes: Both abandonment and intensification of land uses endanger important areas to which many species can retreat. Globalization is drastically transforming the biocenoses in our watercourses.

The conference was attended by just under 100 people who elaborated which plants and animals are winners and losers of the ongoing transformation even today, what the causes are in each case, and which scenarios exist for the future of nature.

Freitag, 24. Mai		
Ab 16.00 Uhr	Begrüßungskaffee	
16.45 Uhr	Eröffnung Dr. Hannes Petrischak Stiftung Forum für Verantwortung, Nonnweiler-Otzenhausen Dr. Andreas Bettinger Zentrum für Biodokumentation (LUA), Landsweiler-Reden	
17.00 Uhr	Grußwort Roland Krämer Staatssekretär, Ministerium für Umwelt und Verbraucherschutz des Saarlandes	
17.15 Uhr	Zwei Grad mehr in Deutschland – Wie der Klimawandel unseren Alltag verändern wird Dr. Bernd Sommer Wissenschaftlicher Mitarbeiter am Norbert Elias Center for Transformation Design & Research (NEC) an der Universität Flensburg	
18.00 Uhr	Klimawandel und Biodiversität – Forschungsansätze und Ergebnisse Prof. Dr. Dr. h.c. Volker Mosbrugger Direktor am Senckenberg Forschungsinstitut und Naturmuseum in Frankfurt/M., Wissenschaftlicher Koordinator des Biodiversität und Klima Forschungszentrums (BIK-F)	
18.45 Uhr	Diskussion zu beiden Vorträgen	
19.30 Uhr	Abendessen	
Samstag, 25. Mai		
09.00 Uhr	Wer kommt, wer geht? Einwanderungsrouten in die Großregion Prof. Dr. Thomas Schmitt Universität Trier, Biogeographie	
9.30 Uhr	Auswirkungen von Landnutzungs- und Klimawandel auf die Vegetationsdecke aus der Sicht des Arten- und Biotopschutzes Dr. Andreas Bettinger Zentrum für Biodokumentation (LUA), Landsweiler-Reden	
10.30 Uhr	Kaffeepause	
11.00 Uhr	Dramatischer Wandel unter Wasser – Die Veränderung der Lebensgemeinschaften in unseren Fließgewässern Steffen Potel BUND Saarland e.V.	
11.30 Uhr	Höher geht's nicht – Auswirkungen des Klimawandels auf Lebensräume und Arten in den Höhenlagen der Mittelgebirge Dr. Steffen Caspari Zentrum für Biodokumentation (LUA), Landsweiler-Reden	
12.00 Uhr	Tagfalter: Wer sind die „Gewinner“ des Klimawandels? Erwin Rennwald Lepiforum e.V., Rheinstetten	
12.30 Uhr	Mittagessen	
14.00 Uhr	Der Wandel der Heuschreckenfauna Dr. Carsten Renker Naturhistorisches Museum Mainz	
14.30 Uhr	Klimawandelauswirkungen auf Vögel – Modelle, Prognosen, Indikatoren Sven Trautmann Dachverband Deutscher Avifaunisten e.V., Münster	
15.00 Uhr	Änderungen in der Vogelfauna Südwestdeutschlands und deren Ursachen Norbert Roth Ornithologischer Beobachterring Saar	
15.30 Uhr	Zur Dynamik der Flechten-Biota: Vorwärts in die Vergangenheit Dr. Volker John Pfalzmuseum für Naturkunde, Bad Dürkheim	
16.00 Uhr	Kaffeepause	
16.30 Uhr	Neophyten – Status quo und Perspektiven Dr. Thomas Becker Universität Trier, Geobotanik	
17.00 Uhr	Der Wandel der Libellenfauna Dr. Jürgen Ott Gesellschaft für Angewandte Landschaftsökologie und Umweltplanung Dr. Ott mH, Trippstadt	
17.30 Uhr	Modelle für den Wandel der Natur – Szenarien für die Zukunft Katharina J. Filz Universität Trier, Biogeographie	
18.00 Uhr	Resümee aus den Vorträgen Dr. Andreas Bettinger/ Dr. Hannes Petrischak	
18.30 Uhr	Abendessen	
Sonntag, 26. Mai		
09.00 bis 13.00 Uhr	Exkursionen (parallel): Hunsrück Dr. Steffen Caspari Hammelsberg Andreas Werno, ZfB/ Dr. Andreas Bettinger	

### University seminars, continuing education for teachers, lectures, publications on biodiversity

In the spring semesters of 2010 and 2011, Dr. Hannes Petrischak taught seminars on biodiversity for students enrolled in a certificate program at the endowed chair for Sustainable Development at Saarland University. In the context of the chair's lecture series ("workshop dialogue"), an introductory lecture was given on this topic several times. The topic has always played a special role in continuing education for teachers and in working with students at schools, for example nature hikes with elementary school classes. Forum für Verantwortung was also involved in the module "biodiversity" in the certificate course "Education for sustainable development" for teachers at the BNE (Education for sustainable development) Center at the Saarland Institute for Education and Media (LPM). Lectures were also held during a teacher-student seminar of the UNESCO project schools in Saarland ("From Costa Rica to the Blies district"), in the framework of the project "Blooming Schoolyards" in Saarlouis County ("Insects visiting flowers"), and at seminars for participants in the Voluntary Year of Ecological Service (FÖJ). Public lectures were given at the International Forum at the Bergstraße Community School in Seeheim-Jugenheim, in lecture series at the Environmental Campus Birkenfeld, in the context of regional events on the topic of orchard meadows, and at the European Children's Book Fair in Saarbrücken in May, 2014.



**Professor Josef H. Reichholf**

Josef H. Reichholf, a zoologist, ecologist, and evolutionary biologist well-known to a broad audience, has supported Forum für Verantwortung with extremely erudite lectures filled with anecdotes on various topics at several colloquiums: "The enigma of becoming human" (Evolution, 2002), "The past thousand years—An ecological retrospective" (The future of the Earth, 2005), "Why do we have such an oversized brain?" (From evolution to sustainability, 2014). In his book "The demise of diversity" in the book series on the future of the Earth (p. 69), he emphatically describes the interconnections between meat consumption and clearing of the rain forest, between overfertilization of the landscape and the loss of birds and butterflies, but also success stories about rescuing endangered animal species. He has given numerous public lectures on this topic. In addition, he is always a well-regarded discussion partner for the foundation's team on diverse subjects centered around humankind and nature. At the conclusion of the colloquium series, his dinner speech on "Raven-black intelligence" was met with an enthusiastic response. His wife Miki Sakamoto also provides a special source of inspiration for encountering nature with her German-Japanese nature poetry.

## START STIFTUNG

Stipendien für engagierte  
Schülerinnen und Schüler  
mit Migrationshintergrund

### START seminars

**START** is the largest German initiative to support school students with immigrant backgrounds; it teaches interested young people key qualifications for their school and professional careers as well as for active participation in society. Founded in 2002 by the not-for-profit Hertie Foundation and now implemented by the START Foundation, a not-for-profit limited company, START has been established in 14 federal states by approximately 90 cooperation partners. In Saarland, ASKO EUROPA-STIFTUNG (AES) took on coordination of the project, and the European Academy of Otzenhausen (EAO) is closely involved as well. Against the background of supporting civic engagement and the broad range of geographical and cultural origins of the young students, sustainable development is an ideal topic within the framework of the seminars offered as part of the START program. For this reason, Forum für Verantwortung, in close collaboration with the EAO and the AES, conducted several seminars at the EAO for which START scholarship recipients were recruited regionally or nationally.

#### Enough is enough!—Consumption and lifestyles in the 21st century

##### START summer academy, April 2-6, 2013, European Academy of Otzenhausen

Directed by Petra Lauermann and Caroline Jung, the participants learned about the impacts of our "Western" consumption of energy, water, resources, and land with their respective consequences for the Earth system.

#### Is the danger of epidemics growing?—Global epidemics, poverty, and development cooperation

##### START summer academy, July 19-24, 2010, European Academy of Otzenhausen

The starting point and basis for this seminar with participants from across Germany was the volume "The new plagues. Pandemics and poverty in a globalized world" by Prof. Stefan H. E. Kaufmann, which appeared in the book series on the future of the Earth (p. 69). The book emphasizes that under certain conditions in a globalized world, contagious diseases can spread around the globe within a few days, resulting in a pandemic. Another central topic was the problem of increasing resistance to antibiotics due to excessive use of antibiotics (also to fatten animals) and a lack of research funding in this area.

#### Food

##### START seminar, April 29-May 1, 2011, European Academy of Otzenhausen

Besides intensive examination of the question of the impacts of our diet, for example increasing meat consumption, on ecosystems and which options for action exist, the question "Genetic engineering—a tool to combat hunger?" was at the center of this seminar. Manfred Ladwig, filmmaker and environmental journalist with Südwestrundfunk (SWR, a radio and TV station), presented his films "Die Gen-Verschörung" ("The gene conspiracy") and "Die Hungermacher" ("The hunger makers"), talked about his research in various regions of the Earth, and provided insight into the methods of journalism.



MEDIA PROJECTS AND MEDIA COOPERATION PROJECTS

by Dirk Wilutzky and Mathilde Bonnefoy

Für eine nachhaltige und gerechtere Zukunft der Menschheit (For a sustainable and more just future of humankind)

In this series of short documentaries, recognized, independent, clear-sighted specialists—the best on the subjects in question—speak: natural and social scientists, economists and ecologists, philosophers and activists. They explain how most of the obstacles on the path toward a sustainable and globally more just world could be overcome. The series began in 2010; 30 films have been broadcast so far.

The foundation Forum für Verantwortung supports the film series both financially and by making contact to prestigious speakers. One film features Klaus Wiegandt himself. The foundation uses the films in its seminars and continuing education events on sustainability topics.



Dirk Wilutzky

Dirk Wilutzky studied philosophy and rhetoric at Eberhard-Karls-University of Tübingen for two years. From 1991 to 1993, he was an assistant director at the Landestheater Eisenach and was later involved in various film productions, mostly documentaries and TV series. Since 2010, he has

been making the series of short documentaries "Was tun?" ("What is to be done?") for the German-French TV station arte. The film he produced about Edward Snowden, "CITIZENFOUR," was awarded the Oscar in the category "best documentary" in February, 2015; the award was presented to Dirk Wilutzky together with Mathilde Bonnefoy and Laura Poitras.

Many of the following short films can be watched on ARTE Future (www.wastun.tv):

	Answers from ...
Über individuelles Engagement (On individual involvement)	Jakob von Uexküll
Über die "Effizienz-Revolution" oder: "Das Entkoppeln des Wohlstandes vom Verbrauch" (On the "efficiency revolution" or: "Decoupling prosperity from consumption")	Ernst Ulrich von Weizsäcker
Über Saatbanken und Biodiversität (On seed banks and biodiversity)	Vandana Shiva
Über das Erhalten von humanistischen Werten in Krisenzeiten (On upholding humanist values in times of crisis)	Dennis Meadows
Über Bildung als Mittel zur gesellschaftlichen Veränderung (On education as a means to change society)	Klaus Wiegandt
Über die "Décroissance" (On "décroissance")	Serge Latouche
Über den Angriff der neo-liberalen Think Tanks auf die Demokratie (On the attacks on democracy by neoliberal think tanks)	Susan George
Über individuelles politisches Engagement (On individual political involvement)	Gro Harlem Brundtland
Ist es zu spät? (Is it too late?)	David Suzuki
Über avaaz.org und globale Internet- Kampagnen (On avaaz.org and global online campaigns)	Ricken Patel
Über die "Transition Town" Bewegung (On the "Transition Town" movement)	Rob Hopkins
Über Wohlstand ohne Wirtschaftswachstum (On prosperity without economic growth)	Tim Jackson
Über eine Welt, der das Wasser ausgeht (On a world running out of water)	Maude Barlow
Über gewaltfreie Konfliktlösungen (On nonviolent conflict resolution)	Scilla Elworthy
Über das Erarbeiten von Konsens als Grundlage für internationale Verträge (On elaborating consensus as a basis for international agreements)	Dirk Messner
Über gesellschaftliche "Tipping Points" (On societal tipping points)	Franz Josef Radermacher
Über das Modell einer "stationären Wirtschaft" (On the model of a "stationary economy")	Herman Daly
Über den Green Economy Report des UNEP (On UNEP's Green Economy Report)	Achim Steiner
Über die wachsenden Ungerechtigkeiten in der Weltwirtschaft (On the increasing injustices in the global economy)	Stéphane Hessel
Über einen neuen Humanismus (On a new humanism)	Irina Bokova
Über Buddhismus und Kapitalismus (On Buddhism and capitalism)	Sulak Sivaraksa
Überbevölkerung bekämpfen durch Zugang zu Medikamenten (Combating overpopulation by access to medicines)	Thomas Pogge
Über Nachhaltigkeitsbanken (On sustainability banks)	Peter Blom
Über den Hunger in der Welt (On hunger in the world)	Jean Ziegler
Über das internationale Verhandeln gegen die Klimakatastrophe (On the international negotiations against the climate catastrophe)	Pan Jiahua
Über die große Mobilisation (On the great mobilization)	Paul Gilding
Über die mikro-biologische Restaurierung von zerstörten Agrarböden (On microbiological restoration of degraded agricultural soils)	Claude & Lydia Bourguignon
Über die "Große Transformation" zu einer nachhaltigen Gesellschaft (On the "Great Transformation" to a sustainable society)	Maja Göpel
Über die Orchestrierung des Klimaskeptizismus (On the orchestration of climate skepticism)	Naomi Oreskes
Über Greenpeace und zivilen Ungehorsam (On Greenpeace and civil disobedience)	Kumi Naidoo

MORE INFORMATION: WWW.WASTUN.TV

Über Bildung als Mittel zur gesellschaftlichen Veränderung  
(On education as a means to change society)  
Klaus Wiegandt (slightly edited transcript)  
Excerpt from the film by Dirk Wilutzky

"(...) Ecologically true prices are a central topic of sustainability. Practically all of the prices in our global economic system today are false because the costs of producing and consuming natural resources are not calculated and assigned to their actual causes, but are imposed on the general public. The scientific community calls this "externalizing costs." This results in grotesque distortions in the world economy, as the following example shows: An entrepreneur in the timber industry whose decisions make business sense has his trees felled, cut into boards, put on a ship, and transported to China. There, the boards are processed and then shipped back to Germany. That is ecological insanity, yet it is a necessity from a business point of view, because otherwise, the entrepreneur would not be able to compete and perform.

That is possible only because the prices for energy are much too low and because we as the general public pay the follow-up costs. They are not allocated directly to the product.

If the costs were indeed allocated correctly, then resource and energy prices would have to rise dramatically. But instead, we have had the situation for decades that every entrepreneur, every manager improves his or her bottom line by tackling the labor factor because it is the most expensive factor in the operation. Then labor is made redundant by technological innovations and by using resources and energy.

So for decades, we enjoyed the increase in labor productivity, but we never questioned how it actually came about. That is a process in which resources and energy are used, and the labor factor is made redundant.

If we had true prices, then entrepreneurs and managers would economize on resources and energy and would hire more people. In other words: If we now manage to turn this process around, we will also experience that many more people are integrated into employment because it makes business sense. (...)

At the time, I collaborated with scientists and published a book series on the central topics of sustainability (...) But very early on in the discussions with the scientists, I realized that this alone would not be enough (...), but that we have to focus on education to convey this knowledge to civil society.

And that is the greatest failure of the past 30 years: We did not take the general public on board on our quest for sustainability. Perhaps 0.5 percent of the population in Germany knows about these complex interrelationships (...), or 400,000 people. We must take steps out of these elite circles, and must implement this in civil society through discussions; after all, it is about civil society deciding between the possible options for action shown by the scientific community, examining them, and evaluating them.

In other words, we also need a debate about values in our society in order to decide what kind of world of tomorrow we want."

Movie theater ad "The rain forest is still there!"

The massive amount of meat we consume and the destruction of the rain forest it entails are the subject of an animated movie theater ad produced by Lea Schönfelder, a graduate of the Kunsthochschule Kassel, and Manfred Ladwig (dramaturgy). The ad was commissioned by the foundation Forum für Verantwortung.

The 59-second movie theater ad was shown in approximately 40 arthouse cinemas across Germany in January, 2013.



VIEW THE AD AT: [HTTP://WWW.MUT-ZUR-NACHHALTIGKEIT.DE/DE/COMPONENT/CONTENT/ARTICLE.HTML?ID=116](http://www.mut-zur-nachhaltigkeit.de/de/component/content/article?id=116)

Radio spots about sustainability bigFM Saarland



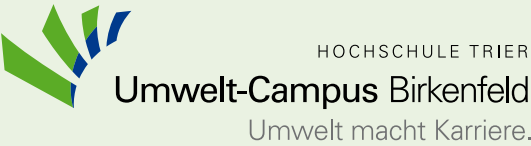
"Did you know that ...?" These are the first words of 15 radio spots on sustainability featuring astounding facts on our consumption and the consequences of our lifestyles to encourage listeners to think and read more about these issues.

For instance, why should a double hamburger actually cost 150 euros? Why do about 11,000 liters of water go into a single pair of jeans, and why do they travel halfway around the world before reaching the store shelf? Why does each product carry its own ecological rucksack, and what does our consumption-oriented lifestyle have to do with the sea level?

The radio spots on sustainability are a joint campaign by bigFM Saarland and the educational initiative Encouraging Sustainability. They were broadcast for eight weeks on bigFM Saarland (94.2) beginning January 7, 2013.

ALL THE ANSWERS TO THESE QUESTIONS AND MORE ARE AVAILABLE AT [HTTP://WWW.MUT-ZUR-NACHHALTIGKEIT.DE/DE/RADIOSPOTS.HTML](http://www.mut-zur-nachhaltigkeit.de/de/radiospots.html)





COLLABORATION WITH UNIVERSITIES

The Environmental Campus Birkenfeld (UCB),  
University of Applied Sciences Trier

Close cooperation between The Environmental Campus Birkenfeld (UCB) and the European Academy of Otzenhausen (EAO) as well as the educational initiative Encouraging Sustainability has emerged over the years because of their close geographical proximity and the major overlaps in the substance of their work. For example, Professors Klaus Helling and Dirk Löhr have been active as speakers in seminars hosted by Forum für Verantwortung. At the Germany-wide Conference of Deans (Economics faculties) on May 28, 2009 in Trier, Klaus Wiegandt spoke at the invitation of UCB and highlighted the outstanding importance of educating future leaders about sustainability.

Master’s program in sustainability  
“Sustainable change—From knowledge to action”

In collaboration with The Environmental Campus Birkenfeld (UCB), University of Applied Sciences Trier, and with substantive support from Forum für Verantwortung, the European Academy of Otzenhausen is developing the master’s program in Sustainable Change as a part-time continuing education program. The program is accredited and is scheduled to begin in the summer term 2016. The figure provides an overview of the planned structure of the master’s program.

(Assessment center)	Semester				
	1. Systems	2. Change	3. Topic-related application		4. Reflection
Ecology and technology	The Earth system	Sustainable technical systems	a) Climate and energy	b) Resources (+ Water, food, biodiversity)	Master's thesis
Economics	Economic systems	Economic change			
Social studies in the broader sense (incl. ethics, political science, and sociology)	Socio-political systems	Socio-political change			
General studies	Encouraging Sustainability	Group field trips	Theory of science/ communication		Master's colloquium

Source: The Environmental Campus Birkenfeld, November 2014

MORE INFORMATION: [WWW.SC.UMWELT-CAMPUS.DE](http://WWW.SC.UMWELT-CAMPUS.DE)

Saarland University  
Endowed chair in Sustainable development

In 2009, the educational initiative Encouraging Sustainability endowed a chair in Sustainable development at Saarland University with the European Academy of Otzenhausen taking the lead, ASKO EUROPA-STIFTUNG providing financial support, and Forum für Verantwortung accompanying the process. The endowed chair was first held for one year by Prof. Petra Schweizer-Ries as acting professor. She taught an interdisciplinary module on sustainability which began with a lecture by Dr. Hannes Petrischak on October 19, 2009. Arno Krause and Dr. Hannes Petrischak served on the search committee, which finally agreed on Prof. Olaf Kühne. From 2010 to 2012, he headed a cross-departmental certificate program in sustainability sciences.

Furthermore, Dr. Hannes Petrischak taught a seminar on biodiversity at Saarland University in the spring terms of 2010 and 2011. Additional multi-day seminars for students were offered at the European Academy of Otzenhausen in cooperation with the endowed chair.

Virtuelle Akademie Nachhaltigkeit  
(Virtual Academy of Sustainability), University of Bremen



The Virtual Academy of Sustainability at the University of Bremen, directed by Prof. Georg Müller-Christ, provides an innovative teaching concept with video-based classes on the subject of sustainability. It is available to all German-language universities and docents free of charge. The video-based classes of the Virtual Academy of Sustainability are conceptualized so that students can get academic credit for them at various universities for compulsory classes, electives, open studies, or general studies.

The foundation Forum für Verantwortung supports the Virtual Academy of Sustainability both financially and by recommending speakers and topics in order to impart the basics about sustainable development at the university level.

Learning units have already been produced with some of the authors of the book series on the future of the Earth, for example Prof. Mojib Latif on climate, Prof. Klaus Hahlbrock on food, and Prof. Rainer Münz and Dr. Albert Reiterer on the global population and global migration.



## Zentrum für Nachhaltige Unternehmensführung (ZNU, Center for sustainable corporate management), Witten/Herdecke University

Within a longstanding cooperation framework, Forum für Verantwortung supports the ZNU at Witten/Herdecke University in operative terms in continuing education events for decision-makers and sustainability officers in industry and wholesaling/retailing. The ZNU is an application-oriented research institute in Witten/Herdecke University's department of economics. A sustainability initiative of the business and scientific communities, the ZNU is active in research, teaching, continuing education, and conferences, making sustainability tangible for the leaders of today and tomorrow, and making them excited about the opportunities of sustainable corporate management. The ZNU is headed by Dr. Axel Kölle and Dr. Christian Geßner.

### II. ZUKUNFTSKONFERENZ FOOD

#### Sortimente NACHHALTIG gestalten!

Erarbeiten Sie auf der neutralen ZNU-Plattform Leitkriterien für eine Nachhaltige Sortimentsgestaltung – es erwarten Sie Top-Vertreter von Handel und Industrie.

21./22. April 2010  
Universität Witten/Herdecke

ZNU's central event is the annual Zukunftskonferenz Food (Future conference food), whose target group is decision-makers in the food value-added chain.

### NACHHALTIGKEITSMANAGER<sup>FOOD</sup>

Kompaktseminar für Entscheider und Nachhaltigkeitsverantwortliche aus Industrie und Handel, 12. – 14. November 2013, Hotel Gut Höhne in Mettmann

Top experts discuss strategies and opportunities for implementing sustainability in companies in the food sector with the participants. At the 2nd Zukunftskonferenz Food, Klaus Wiegandt gave a lecture on "Sustainability as a challenge for manufacturers, wholesalers, and retailers" on April 22, 2010.

Roughly twice a year, ZNU also hosts the compact seminar NachhaltigkeitsmanagerFood (Sustainability manager food) in Mettmann. Its goal is to train "sustainability champions" who are motivated to implement the topic of sustainability in the companies where they work. Individual problem-solving approaches are developed for the participating businesses. Since 2009, Dr. Hannes Petrischak has given an introductory lecture on "Sustainability as a global challenge" in approx. ten of these seminars.

Since 2014, Forum für Verantwortung has been an official partner of ZNU.

MORE INFORMATION: [WWW.MEHRWERT-NACHHALTIGKEIT.DE](http://WWW.MEHRWERT-NACHHALTIGKEIT.DE)

## EDUCATIONAL INITIATIVE ENCOURAGING SUSTAINABILITY

### Establishment

The foundation Forum für Verantwortung established the educational initiative Encouraging Sustainability in 2006 in collaboration with the ASKO EURO-PA-STIFTUNG (AES) and the European Academy of Otzenhausen (EAO). Over the course of nine years, Encouraging Sustainability has developed into an educational project with an international focus with the goal of motivating people to deal responsibly with the Earth system on the basis of a broad, public, science-based discourse.

**Arno Krause**, founder of the EAO and longstanding president of its Assembly of Partners, as well as his successor **Klaus-Peter Beck**, who is also chairman of the Board of Trustees of AES, have provided decisive support to the large-scale project from the beginning. Without their dedication and the financial support of the AES, the educational initiative could not have been made a reality.

As CEO of AES (2000-2010), **Dr. Michael Meimeth** also provided strong support to the educational initiative, especially in its early years.

**Wolfram Huncke**, science journalist and former editor-in-chief of bild der wissenschaft (1972-1989), has advised the foundation Forum für Verantwortung since the establishment of the educational initiative concerning public relations.



Klaus-Peter Beck,  
Arno Krause



Wolfram Huncke, Klaus Wiegandt



Klaus-Peter Beck, Prof. Klaus Hahlbrock,  
Dr. Michael Meimeth (left to right)





The sponsors

Forum für Verantwortung

In March, 2005, the foundation Forum für Verantwortung hosted a colloquium on the topic “The future of the Earth—How much more can our planet take?” (p. 28) In the words of Klaus Wiegandt, founder and CEO of the foundation as well as founder of the initiative Encouraging Sustainability: *“In the course of the lectures and conversations, it became abundantly clear to the participants that many of our planet’s problems will catch up with us relentlessly if we are not intentionally and without delay guided by the notion of sustainable development.”* · [www.forum-fuer-verantwortung.de](http://www.forum-fuer-verantwortung.de)



ASKO EUROPA-STIFTUNG

ASKO EUROPA-STIFTUNG dedicates its work to a Europe that faces up to the political, social, and ecological challenges of globalization and takes on responsibility in and for the world. For this reason, it is a co-sponsor of the initiative Encouraging Sustainability in order to encourage the discourse about sustainable development in society. · [www.asko-europa-stiftung.de](http://www.asko-europa-stiftung.de)



European Academy of Otzenhausen  
not-for-profit limited company

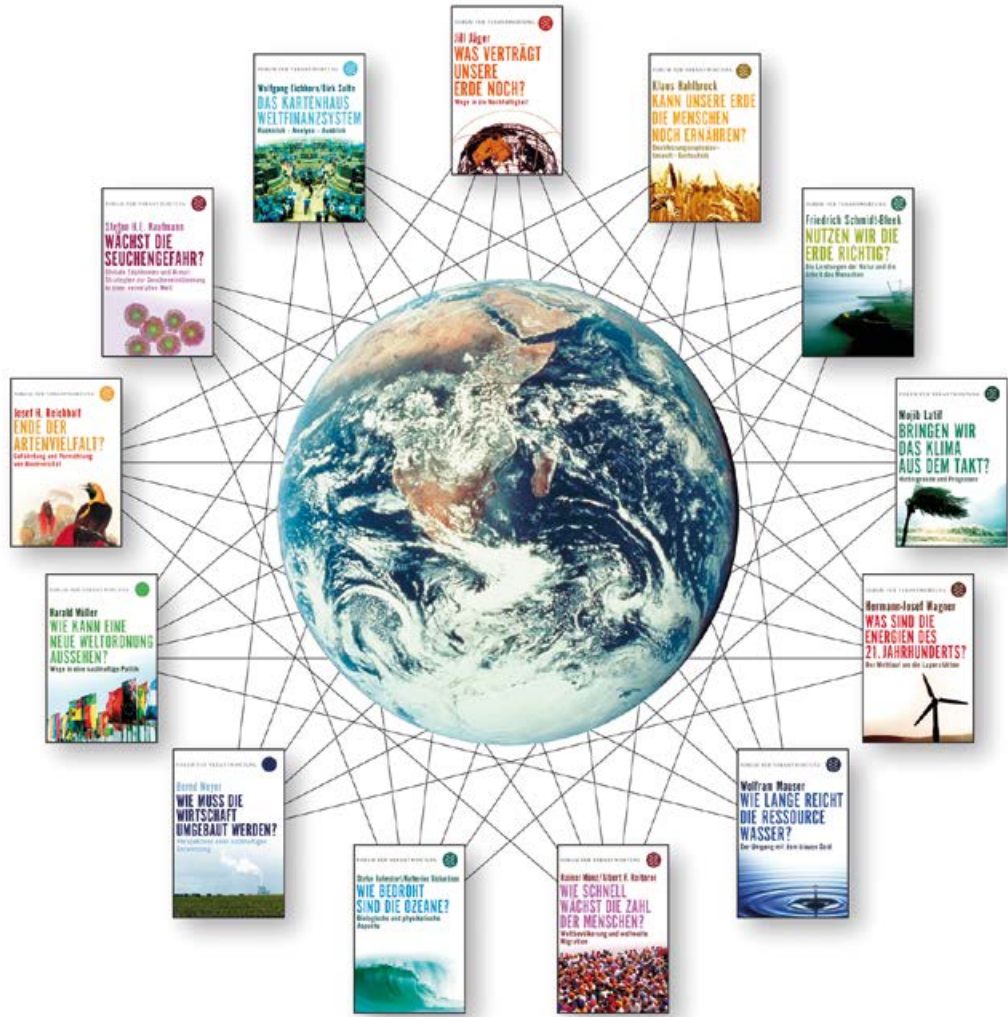
“Come together to create Europe.” This has been the guiding theme of the European Academy of Otzenhausen since its establishment in 1954. Its work is devoted to the fundamental questions of European integration—research and education—as well as German-French collaboration and international politics from a European perspective. As a co-sponsor of the initiative Encouraging Sustainability, it is concerned with the future of the Earth: *“Our commitment to and our responsibility for a policy of sustainability will be the yardstick for measuring the success of European policy,”* emphasizes Arno Krause, longstanding president of the Assembly of Partners. (p. 79) · [www.eao-otzenhausen.de](http://www.eao-otzenhausen.de)



Book series on the future of the Earth

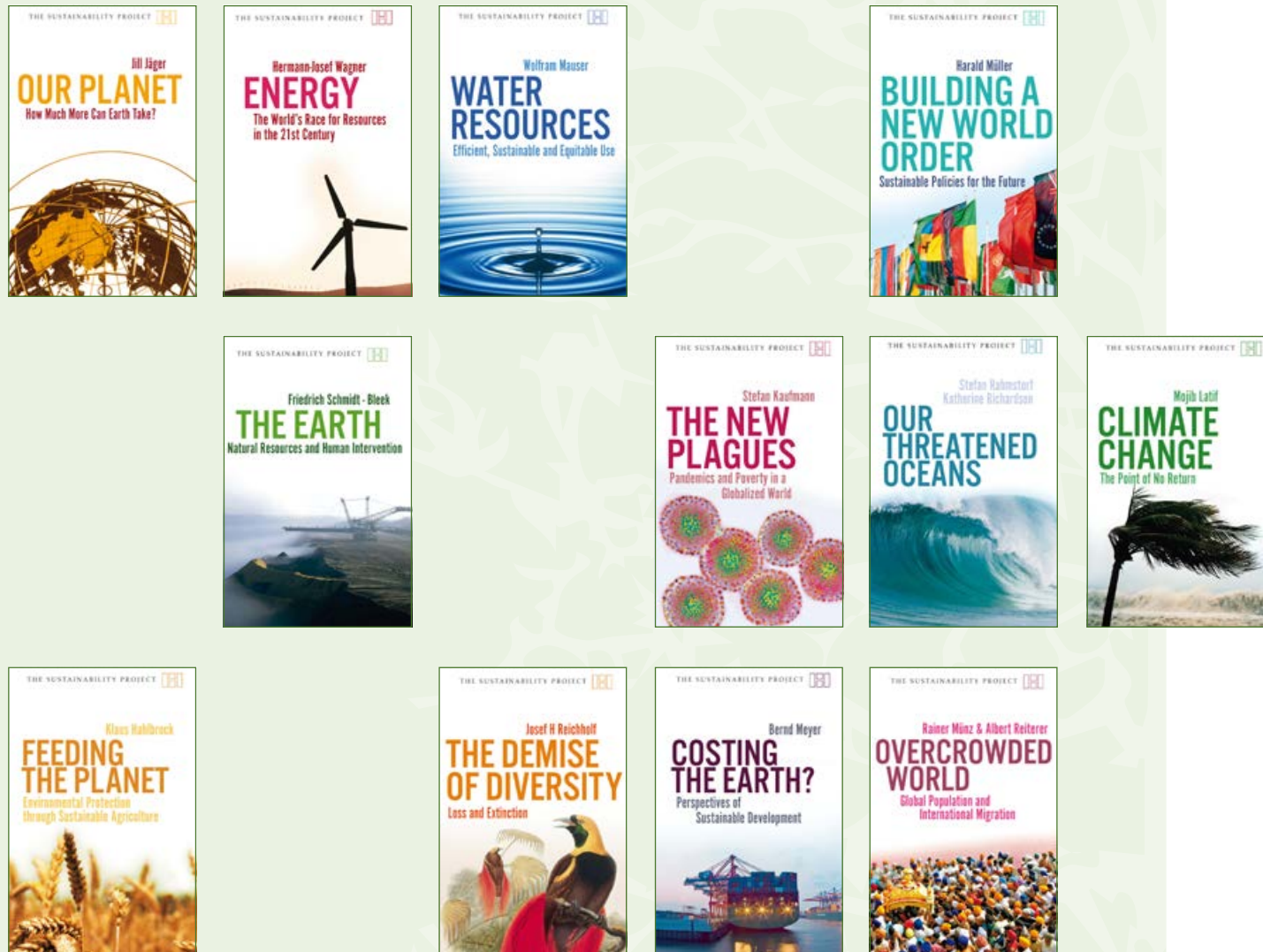
In the context of the educational initiative Encouraging Sustainability, the Earth’s functions and the activities of humans are presented in their interconnections, and various facets of the existing interrelationships are illuminated in 13 books. Each individual book covers its topic in a way that is systemically linked to the other books in the series.

The book series was edited by Forum für Verantwortung, and the German edition was published by S. Fischer Verlag (2007-2009).



### English-language book series “The Sustainability Project”

The English edition of the first twelve volumes was published in a series titled “The Sustainability Project” by Haus Publishing, London. On July 13, 2009, Klaus Wiegandt and the book authors Klaus Hahlbrock, Stefan H.E. Kaufmann, and Harald Müller presented the series at the Royal Society for the Encouragement of Arts, Manufactures and Commerce. The series was advertised in the Guardian. Most of the German books in the series and all of the English ones are also available as e-books.



### Quotations from The Sustainability Project series

“Our future is not predetermined. We ourselves shape it by our actions.” Wiegandt 2008, Editor’s Foreword to The Sustainability Project series

“The Earth is a complex system consisting of many closely interconnected subsystems. (...) If everything on our planet functioned according to the simple principle of cause and effect, it would be possible to solve environmental, economic, or social problems simply by intervening at the right point.” Jäger 2008: 43

“The highest priority for our very existence is a viable biosphere that provides us and everything else dependent upon it with a sufficient quality and quantity of the four basic elements of life: air, water, food and space to live.” Hahlbrock 2009: 15

“The industrialized nations operate economically as if they had several planets called Earth at their disposal. For that reason there will not be any sustainable development without a radical increase in resource productivity.” Schmidt-Bleek: 2007

“Apparently there is a major consensus in international climate research that our climate is changing and that man is partially responsible for this. (...) The climate problem can be solved. There is still time to act.” Latif 2009: 100, 190

“Looking at the Earth from space, we immediately recognize it as a water planet. (...) This abundance of water has many profound implications—most importantly, it is the reason for the existence of life on Earth.” Rahmstorf/Richardson 2009: 1

“How to deal with water sustainability (and this is true for all other natural resources) is not a problem that society can simply hand over to the scientists, politicians or economists to solve. This is a crucial question for our emerging globalized culture, which concerns everyone and will determine our survival.” Mauser 2009: Preface

“About 95% of the global increase in human population is taking place in developing and mid-income countries. Populations in the poorest countries continue to grow the most rapidly. This leads to the imminent issue of the life opportunities for the children born there today—and the youth of tomorrow. Many of these prospects are dire in manifold ways.” Münz/Reiterer 2009: 14

“The great pandemics not only terrify the world, they also drastically constrain the living conditions of billions of people. If we do not have the courage to reverse developments, conditions for millions of people will become even worse—and at some point, this will impact us as well.” Kaufmann (personal quotation)

“Our livestock depends on imports of large amounts of feed. Soybean meal makes up the major part of imported feed. Hence, the massive expansion of soy cultivation in the tropics, again, above all in South America, is nourishing the livestock in our barns. Almost literally, our animals are feeding off tropical forests and tropical biodiversity.” Reichholf 2009: 100

“If people in all countries used as much electricity as do those in Germany, worldwide electric-power generation would almost triple.” Wagner 2008: 37

“Increasing resource productivity should be the decisive aim of environmental policy measures, because it would automatically bring a reduction in emissions.” Meyer 2009: 75

“It is the resignation of the many that prevents rapid progress towards global governance. It is the courage of the few that carries it forward.” Müller 2009: 252

“What is actually a credit? (...) One could say it clearly: a (money-)credit is a short sale of money, a short sale of legal tender. The borrower, the debtor, sells money that he does not have. He promises to settle this money at an agreed upon date in the future (at maturity of the credit).” Eichhorn/Solte 2015: 48



## The authors of the book series on the future of the Earth


**Our Planet  
How Much More Can Earth Take?**

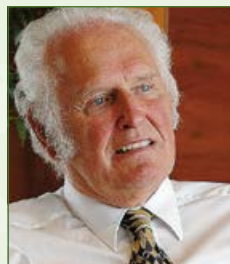
Jill Jäger  
Haus Publishing, 2008  
ISBN 978-1-906598-05-1


**Feeding the Planet · Environmental Protection  
through Sustainable Agriculture**

Klaus Hahlbrock  
Haus Publishing, 2009  
ISBN 978-1-906598-11-2


**Climate Change  
The Point of No Return**

Mojib Latif  
Haus Publishing, 2009  
ISBN 978-1-906598-14-3


**The Earth  
Natural Resources and Human Intervention**

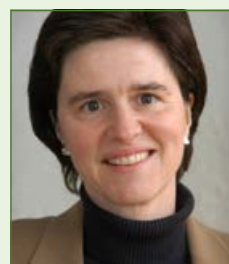
Friedrich Schmidt-Bleek  
Haus Publishing, 2009  
ISBN 978-1-906598-09-9


**Water Resources  
Efficient, Sustainable and Equitable Use**

Wolfram Mauser  
Haus Publishing, 2009  
ISBN 978-1-906598-07-5


**Our Threatened Oceans**

Stefan Rahmstorf/Katherine Richardson  
Haus Publishing, 2009  
ISBN 978-1-906598-06-8


**Energy · The World's Race  
for Resources in the 21st Century**

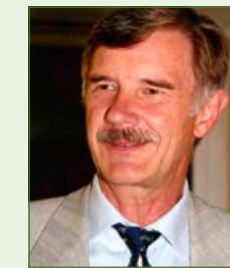
Hermann-Josef Wagner  
Haus Publishing, 2008  
ISBN 978-1-906598-08-2


**Overcrowded World · Global Population  
and International Migration**

Rainer Münz, Albert F. Reiterer  
Haus Publishing, 2009  
ISBN 978-1-906598-10-5


**The New Plagues  
Pandemics and Poverty in a Globalized World**

Stefan H. E. Kaufmann  
Haus Publishing, 2009  
ISBN 978-1-906598-13-6


**The Demise of Diversity  
Loss and Extinction**

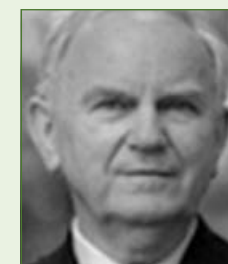
Josef H. Reichholf  
Haus Publishing, 2009  
ISBN 978-1-906598-15-0


**Costing the Earth?  
Perspectives on Sustainable Development**

Bernd Meyer  
Haus Publishing, 2009  
ISBN 978-1-906598-12-9


**Building a New World Order  
Sustainable Policies for the Future**

Harald Müller  
Haus Publishing, 2009  
ISBN 978-1-906598-16-7



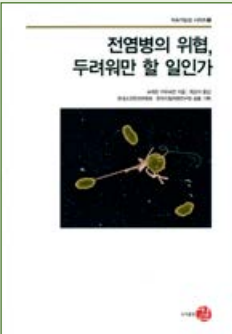
**Das Kartenhaus Weltfinanzsystem.  
Rückblick-Analyse-Ausblick  
(The global financial system: A house of cards.  
Looking back—analysis—looking forward)**  
Wolfgang Eichhorn, Dirk Solte  
S. Fischer Verlag, 2009  
ISBN 978-3-596-18503-0

Numerous volumes were also published in other languages by foreign publishers and are used in our international study programs.

<b>Our Planet. How Much More Can Earth Take?</b> Jill Jäger	German, English, Japanese, Korean
<b>Feeding the Planet. Environmental Protection through Sustainable Agriculture</b> Klaus Hahlbrock	German, English
<b>Climate Change. The Point of No Return</b> Mojib Latif	German, English, Korean
<b>The Earth. Natural Resources and Human Intervention</b> Friedrich Schmidt-Bleek	German, Chinese, English
<b>Water Resources. Efficient, Sustainable and Equitable Use</b> Wolfram Mauser	German, English
<b>Our Threatened Oceans</b> Stefan Rahmstorf/Katherine Richardson	German, English, Korean
<b>Energy. The World's Race for Resources in the 21st Century</b> Hermann-Josef Wagner	German, English, Korean
<b>Overcrowded World?</b> <b>Global Population and International Migration</b> Rainer Münz, Albert F. Reiterer	German, English
<b>The New Plagues.</b> <b>Pandemics and Poverty in a Globalized World</b> Stefan H. E. Kaufmann	German, English, Korean
<b>The Demise of Diversity. Loss and Extinction</b> Josef H. Reichholf	German, English, Korean
<b>Costing the Earth?</b> <b>Perspectives of Sustainable Development</b> Bernd Meyer	German, English, Korean
<b>Building a New World Order.</b> <b>Sustainable Policies for the Future</b> Harald Müller	German, English



Jäger, Japan  
Chuokoron, 2008



Kaufmann,  
UNESCO Korea, 2014



Reichholf, UNESCO  
Korea, 2014



Schmidt-Bleek, China,  
Chemical Industry Press, 2009

Audiobooks

The book series on the future of the Earth was complemented by the audiobooks “Die Erde hat Fieber” (“The Earth has a fever”) and “Die Erde am Limit” (“The Earth at the limit”), in which Klaus Wiegandt and the authors of the book series provide insights into the topics of their books in conversation with Gábor Paál of the Südwestrundfunk Baden-Baden (SWR) television and radio station.

The audiobooks are copyrighted.



**Die Erde hat Fieber (The Earth has a fever), November 2007**  
Copyright: Forum für Verantwortung  
Author: Gábor Paál, SWR

**Focal areas:** resources, climate, oceans  
180,000 copies of the audiobook “Die Erde hat Fieber” were published, as well as an accompanying special publication of the magazine bild der wissenschaft (November 2007).



**Die Erde am Limit (The Earth at the limit), Mai 2009**  
Copyright: Forum für Verantwortung  
Author: Gábor Paál, SWR

**Focal areas:** biodiversity, epidemics, the economic system, the world order, the world of finance  
200,000 copies of the audiobook “Die Erde am Limit” were published, and it was also distributed as a supplement to Manager-Magazin (June 2009).



**Gábor Paál**  
Gábor Paál, geographer and earth scientist, is a free-lance journalist and radio host, mostly for science-related radio shows on the Südwestrundfunk (SWR) radio station.  
In 2013, he received the UmweltMedienpreis, an award for media professionals whose work renders outstanding services to environmental awareness and preserving the natural foundations of our livelihoods. We thank Mr. Paál for our excellent collaboration and the scientifically sound realization of our two audiobooks.



## SCIENTIFIC STUDIES

The foundation Forum für Verantwortung commissioned the preparation of two research reports.

### Study no. 1

**“Die ökologischen und ökonomischen Wirkungen eines nachhaltigeren Konsums in Deutschland”** (“The ecological and economic effects of more sustainable consumption in Germany”), under the direction of Prof. Bernd Meyer, Osnabrück (2010)

The study compares behavior modifications with a baseline. It assumes that these behavior modifications come about by insight into their necessity (intrinsic motivation), i.e., without the use of political instruments. It also assumes that these behavior modifications do not presuppose technological changes in the form of new products or production methods. Radical changes in consumer behavior are also excluded. In a word: Which environmental stresses could be avoided if we do not lower our sights above all concerning mobility and housing, but are willing to organize ourselves in a different way in these areas? The impacts on the climate goal, measured by CO<sub>2</sub> emissions, are of particular interest. On the other hand, the question arises as to the impacts of these behavior modifications on economic development. Is it true—as many fear—that this would compromise growth and increase unemployment? The study seeks to answer these questions. (Excerpt from the foreword by Bernd Meyer, p. 6)



### Study no. 2

**“Richtung Nachhaltigkeit – Indikatoren, Ziele und Empfehlungen für Deutschland”** (“Toward sustainability—Indicators, goals, and recommendations for Germany”) under the direction of Prof. Hans Diefenbacher, Heidelberg (2011)

“(…) With the present publication, we would like to make another contribution to a ‘friendly competition’ of indicator systems for assessing the sustainability of economic, ecological, and social developments in Germany. The second goal to be attained with the present publication emerged in dialogue with Klaus Wiegandt and the foundation Forum für Verantwortung. We developed the idea to examine what a coherent political toolkit could look like that would substantially move the Federal Republic of Germany forward toward sustainability.

In this respect, the attempt in the final chapter to sketch that out as a whole is nothing more, but also nothing less than an invitation to discuss the question as to the minimum requirements of a policy that would actually grant the goal of sustainability top priority. (...)” (Excerpt from the foreword by Hans Diefenbacher et al., p. 4)



Study no. 1 was presented to the public at the Representation of Saarland to the Federal Government in Berlin on May 26, 2010.

### Summarizing conclusions of the study

1. Households can lower their CO<sub>2</sub> emissions by 24% and those of the entire economy by 8.7% by insight into the necessity of more sustainable behavior alone and without having to suffer losses in terms of mobility and the quality of their housing.
2. The necessary behavior modifications result in capital investments in transportation routes, residences, and equipment available in households that increase energy efficiency in households dramatically by 22% and that of transportation by 11%, thus reducing expenditures for energy.
3. The impacts on households' consumer spending are considerable: Expenditures for energy, maintenance, and purchase of motor vehicles decline, while expenditures for transportation services, residential rents, maintenance of residences, and their equipment with electrical devices increase. Consumption overall is reduced slightly, by 0.4%.
4. The economic impacts overall are positive: Although gross domestic product remains practically unchanged, private households' disposable income increases, as does employment.
5. If we imagine that it will take ten years until all households gradually come to agree with this necessity, then the assets of private households will increase by 55.7 billion euros during this time period, compared with a baseline assuming no behavior modifications. On the other hand, state revenues from production levies and taxes on goods will decrease.
6. The effects described are conservative estimates, for the assumption that technologies and qualities of goods will remain unchanged is questionable. It is more likely that competition will force producers and investors to develop more sustainable technologies and consumer goods, which will tap additional potential.
7. The political community is called on to support information for consumers through labeling and the like much more strongly than today.

Source: *Die ökologischen und ökonomischen Wirkungen eines nachhaltigeren Konsums in Deutschland* (Bernd Meyer)

Educational modules–Educational materials

Commissioned by the educational initiative Encouraging Sustainability, the Wuppertal Institute for Climate, Environment and Energy developed educational modules on the topics sustainable development, resources/energy, consumption, climate/oceans, economy/new world order, and water/food/population to accompany the book series. The research group “Sustainable production and consumption,” directed by Prof. Christa Liedtke and Dr. Maria J. Welfens, carried out the project. The modules can be used in seminars and workshops in vocational training and continuing education. They are available to disseminators in the field of education, show the interlinkages of the various topics in the individual areas of action, and include workshop materials for a wide range of target groups.



Priv.-Doz. Dr. Dirk Solte and Michael Matern (European Academy of Otzenhausen) developed a seventh educational module on money and the global financial system. Commissioned by ALWIS (Arbeitsleben Wirtschaft Schule e.V.), a team of teachers headed by Petra Lauermann developed a teaching module based on the other modules for the high school subject sustainable development.

Educational platform for Encouraging Sustainability  
European Academy of Otzenhausen



The European Academy of Otzenhausen (EAO) has become a central platform for education on sustainable development, thanks to the deep bonds with Forum für Verantwortung and its co-sponsorship of the educational initiative Encouraging Sustainability. Not only have all the colloquiums and almost all of the foundation’s public seminars taken place here, but sustainability has become the cross-cutting topic of the Academy’s seminar program itself, alongside European education. The heads of department and directors

of studies have integrated sustainable development into the programs of their day-to-day political educational work with great dedication. Joint global responsibility in the context of sustainability is an important building block in the international study programs, in which students from Japan, Australia, the US, or other countries learn about European culture and politics. Forum für Verantwortung often supports these programs through lectures. In the public speaking seminars, in particular young people work on sustainability topics, as evidenced by an entire series of events in 2014 under the motto “Gerecht geht anders” (“Justice requires a change”), which was supported financially by Forum für Verantwortung. Sustainability has also proven to be an important building block in the German-French programs, for instance with farmers and farmers in training from Germany, France, and Luxembourg. From the perspective of European education, sustainability must be a central topic of European foreign policy: in continuation of being a global role model of a peaceful community of previously hostile states, Europe today must take a pioneering role in overcoming the global challenges. Thus, sustainability topics play a major role in the seminars organized by all of EAO’s departments.



MORE INFORMATION: [WWW.EAO-OTZENHAUSEN.DE](http://WWW.EAO-OTZENHAUSEN.DE)





### UN Decade of Education for Sustainable Development

MORE INFORMATION: [WWW.BNE-PORTAL.DE](http://WWW.BNE-PORTAL.DE)

In 2013, the educational initiative Encouraging Sustainability was distinguished as an Official Project of the UN Decade of Education for Sustainable Development for the fourth time.

In the UN Decade of Education for Sustainable Development (2005-2014), the member states of the United Nations committed to strengthening education for sustainable development from the kindergarten to the university level as well as outside of classroom settings and in informal learning.

Klaus Wiegandt, CEO of the foundation Forum für Verantwortung, has been a member of the National Committee for the UN Decade of Education for Sustainable Development appointed by the German UNESCO Commission since 2008. From 2015 on, the UN Decade will be continued in the form of a global action program.

Numerous additional projects as well as cooperation initiatives with prestigious partners have developed from the initiative; comprehensive information is available at [www.mut-zur-nachhaltigkeit.de](http://www.mut-zur-nachhaltigkeit.de) (in German only).

MORE INFORMATION: [WWW.MUT-ZUR-NACHHALTIGKEIT.DE](http://WWW.MUT-ZUR-NACHHALTIGKEIT.DE)



### A PERSONAL PERSPECTIVE ON THE FUTURE

Klaus Wiegandt

My foundation celebrated its fifteenth anniversary in January. For me, this was an occasion to take stock of the probably greatest challenge to all of humankind, namely climate change, in a matter-of-fact way—without taking political, societal, or economic sensibilities into account.

At the legendary Earth Summit in Rio in 1992, climate change was still one challenge among many in the field of sustainability—attention was focused on the global population explosion. Since the late 1990s, it has become ever more apparent that climate change will become the greatest threat to all of humankind in the 21st century.

The world's leading climatologists came to agree that in all probability, average global warming of more than 2°C. by the end of the century, compared with the year 1800, will lead to a tipping point in the climate system, disrupting the climate for centuries and bringing about conditions on our Earth that will seriously endanger the supply of food and drinking water in particular. Yet it cannot be determined scientifically which average amount of global warming will trigger this tipping point.

Politicians in particular are often skeptical and question the scientific robustness and validity of the climate models. In a new book, "Die Zukunft des Klimas. Neue Erkenntnisse, neue Herausforderungen. Ein Report der Max-Planck-Gesellschaft" ("The future of the climate. New insights, new challenges. A report by the Max Planck Society, 2015") Jochem Marotzke, Director of the Max Planck Institute for Meteorology, pointed out three factors that support the reliability of climate models:

1. At their core, the models are based on established basic laws of physics, such as the conservation of mass and energy.
2. The climate models were and are subjected to a series of tests to verify whether they correctly reflect aspects of the climate system. Most of the models have been confirmed in this way.
3. Today, science has a deep understanding of the fundamental effects brought about by the altered composition of the Earth's atmosphere. Ongoing emissions of carbon dioxide results in constant global warming with all its consequences.

A multitude of activities have been launched both at the national and the global levels, especially since Rio 1992. One unit of the gross world product emits roughly 25% less CO<sub>2</sub> today than in the year 1990, i.e., a relative decoupling has been achieved. For years, practically every major corporation in the world has prepared a comprehensive annual sustainability report, continued to set new and more ambitious performance goals, and established and expanded a corporate social responsibility division. Germany has taken on a globally pioneering role in renewables and has begun taking concrete steps with its “Energiewende,” the transformation of the energy system. Most of our media are also granting substantially more attention to the topic of sustainability, in particular the climate.

And civil society in many countries—by no means only in the rich ones—is increasingly willing to change its lifestyles and styles of consumption and economic activity to achieve more sustainability. The “Transition Town” movement has spawned initiatives worldwide, and it is not unusual for them to take effect in municipal governments; the “Degrowth” movement is attracting substantial attention in Europe, as have the more than 1,500 companies that have now committed themselves to the “Gemeinwohlökonomie,” the “economy for the common good.”

All social movements in history have shown that societal transformation always comes from the bottom up, but it frequently takes a long time for it to reach the level of the societal functional elites and the political realm.

And yet—despite all these positive activities and efficiency gains, and despite international agreements to reduce CO<sub>2</sub> emissions, these emissions increased globally from 22 billion tons in 1992 to 35 billion tons in 2014. The fact that their rate of increase has accelerated during the past 15 years is significant. Globally speaking, nine of the warmest years since recordkeeping began in 1880 were in the 21st century, and 2014 was the warmest year of all.

It is noteworthy in this context that warming in the Arctic is twice as severe as the global average. If these dynamics are not halted, it is highly likely that we will exceed 2°C. of global warming as early as 2050. The International Energy Agency (IEA) in Paris, which tends to be on the conservative side and can be considered part of the private sector, now assumes that we will reach 6°C. of global warming by the end of the century, with catastrophic impacts for all of humanity.

**Five factors** above all stand in the way of effective climate mitigation policy around the world:

First and foremost, the entirely insufficient knowledge and thus the lack of awareness on the part of broad segments of society on the planet about the probable consequences of unchecked climate change. The greatest dangers for humanity do not stem from the Greenland ice sheet and parts of Antarctica melting or the Gulf Stream slowing down. These processes may be irreversible after a certain

stage, but they will extend over 100 or 200 years or even longer, and they will not affect the entire global population. The greatest danger to all of humanity will be from vegetation zones shifting abruptly due, for example, to the absence of monsoon rains and repeated loss of major parts of grain and potato harvests because of extreme droughts, heavy rains, and flooding. For billions of people, this could mean certain starvation. Today's emergency food stockpiles last for just 120 days. And in many parts of the world, the exacerbating scarcity of drinking water is an additional problem.

**But politicians' fear of being voted out of office if they drastically curb CO<sub>2</sub> emissions and thus curtail economic growth and jobs paralyzes more effective measures.** This constellation will likely bring about a completely insufficient minimum consensus at the climate summit in Paris in late 2015.

**The hope that economic growth on the one hand could be decoupled globally from resource and energy consumption on the other has not been fulfilled so far, and this will not be possible for several decades to come.** The need for the emerging markets and developing countries to catch up in economic terms and the rebound effect in the industrialized countries are too large.

**A major obstacle on the way to effective global climate mitigation policy is posed by small, elitist, and exceedingly powerful business and finance groups who see their highly profitable economic system in serious danger.** That is why they established scientific institutes and think tanks early on with the single goal of discrediting climate scientists and their research findings, even to the extent of denying the reality of climate change at all. US institutes such as the Heartland Institute, the Cato Institute, and the Competitive Institutes lead the way. They are funded, among other sources, by the billionaire Koch brothers as well as the major energy corporations. The influence of these interest groups on the political and business communities and media cannot be overestimated.

**The probably most significant reason for the current entirely insufficient climate mitigation policy lies in the behavior of the civil societies in democratic countries.** They do not even begin to make use of the potentials of democracy. For example, not even one percent of the German population is prepared to be actively engaged in a political party. Yet in democracies, this is one of the most essential and most promising ways to exert influence and shape policies according to the needs of broad strata of the population. In addition, people can approach their elected representatives, confront them with the urgent questions, and demand answers.

Also, the opportunity has been wasted worldwide to network the progressive forces in society under the umbrella of climate mitigation, first nationally, then internationally, as James Gustave Speth calls for in his book “America the possible: Manifesto for a new economy” (2013) (p. 45); he is actively working toward this end.



In her newest book, "This changes everything: Capitalism vs. the climate" (2014), Naomi Klein rightly points out that recognizing and proclaiming crises is not limited to politics. A "planetary emergency" can also be placed on the global agenda by a mass protest movement of broad strata of society.

In this context, we must consider Stephen Emmott's book "Ten Billion" (2013) to be a final wake-up call, or, in his words, "it's about the unprecedented planetary emergency." Emmott heads a Microsoft Research Institute in Cambridge (England) conducting research on complex systems, including the climate and other ecosystems. He is also a professor at Oxford. In light of his financial independence, he is above suspicion of exaggerating in order to secure further research funding.

In the final chapter, he asks about next steps and sketches out the following scenario: How would the world's governments react if renowned astrophysicists were to announce that an asteroid would strike the Earth and destroy 70 percent of all life on December 3, 2073? Emmott is convinced that all countries would pool their resources and efforts to save humanity. Half would focus on stopping the asteroid, the other half would secure the survival of our species and create the basis for reconstruction—in the event that the first group should fail.

"We are in almost precisely that situation now, except that there isn't a specific date and there isn't an asteroid. The problem is us."

Emmott shares the opinion of leading climatologists: Unchecked climate change has similar effects as an asteroid strike. He comes to the same conclusion as Dennis Meadows and Jørgen Randers did before him: Although climate change could be contained in time even without further technological innovations, this possibility will fail because of democracy, as the systemic risks are too complex to be conveyed to broad sections of the population in time. That is why the political community will take effective action only when the consequences and effects of climate change are perceptible and visible to each and every human being. However, the argument goes, that will be too late.

I personally do not share this cultural pessimism because I am convinced of the opportunities of broad strata of society to shape things in democracies, and in particular against the background of social media.

#### What is to be done?

It would be ideal if each and every individual consumer belonging to the global middle class immediately made an effective contribution to climate mitigation

- by practicing climate-aware consumption. I estimate that roughly 20% of the GDP of industrialized nations consists of junk products; doing without them

would not cost anyone an iota of quality of life—what an immense waste of resources and energy!

- preferring sharing over owning, and eating meat and fish at most three times a week. Approx. 82% of Germans eat meat or fish seven times a week today.
- and making their own mobility eco-intelligent.

Yet among the general public, awareness of the consequences of our lifestyles and consumption patterns is lacking. For the overwhelming majority of the global middle class of consumers, change in the direction of more sustainable consumption is likely to take a least a generation.

But we don't have that much time. If we want to change course toward limited climate change within a window of opportunity of just 15 to 20 years, the political community must first concentrate on measures that define milestones in climate mitigation without turning the structures of the economic system on their head, causing mass unemployment, and interfering in consumption in a dirigiste manner.

Before I briefly outline such programs, I would like to call an essential prerequisite for effective climate mitigation to mind: A McKinsey report and the Stern Report of 2007 showed that we will be successful only if one to two percent of the gross world product, or 500 to 1,000 billion US dollars, are invested annually in climate mitigation. The volume of the investments necessary today is quickly put in perspective if we compare them with other annual global expenditures; in US dollars, they include: 1,500 billion for defense budgets, 640 billion for advertising, more than 1,000 billion for various subsidies—not to mention the trillions that were devoted without hesitation to rescuing the global financial system (in the form of guarantees, loss relief, etc.) without seriously considering alternatives.

Compared with these figures, the Green Climate Fund, whose establishment under the auspices of the United Nations is under discussion, illustrates vividly how catastrophic the difference between ambitions and reality is when it comes to climate mitigation policy: its initial funding is to be a one-off payment of 100 billion US dollars.

Such a fund could be financed by introducing a minimal value-added tax to the global financial system (financial transaction tax) as well as a carbon tax, which is already in force in some places. But even setting aside all the impacts of global warming, measures to reduce carbon emissions are investments in a sustainable society. The increasing concentration of CO<sub>2</sub> in the atmosphere is responsible for ocean acidification, which is proving to be a massive problem for marine communities. Burning down rainforests is wiping out biodiversity to an unimaginable ex-

tent. And our exorbitant consumption of fossil fuels is burning valuable resources, especially oil, that will no longer be available to future generations for much more rational uses.

**But now to the following concrete milestones for climate mitigation:**

1. Ending deforestation and burning down of the rain forests would cut CO<sub>2</sub> emissions by three billion tons per year.<sup>1</sup> According to US scientists' calculations, roughly 44 billion US dollars would have to be raised per year to compensate the emerging economies and developing countries for losses of income.
2. A global reforestation program of 500 million hectares, mostly in the Southern hemisphere, would bind approx. five billion tons of CO<sub>2</sub> emissions in its final stage. The Intergovernmental Panel on Climate Change (IPCC) called for this in a special report as early as the beginning of this century.
3. Retrofitting old coal-fired power plants to the state of the art or replacing them would reduce emissions by almost three billion tons per year.<sup>2</sup>

Now, it does not make much sense to continue such a strong commitment to coal-fired power plants for the next 30 to 40 years. But annual expenditures of 250 to 300 billion US dollars could finance the replacement of the old power plants, especially in emerging economies and developing countries, by a completely different energy mix (renewables as well as gas- and coal-fired power plants) and save significantly more than three billion tons of CO<sub>2</sub> emissions.

Each of the three programs would even create more jobs in these countries and could be implemented relatively quickly. In contrast, cutting more than 11 billion tons of CO<sub>2</sub> emissions through efficiency gains in production processes and consumption would take more time and be more costly.

We would merely gain a little more time for the necessary restructuring of the economic system, the essential changes of lifestyles and consumption patterns, and the science-based discourse in and with civil society about sustainability and the impacts of civil-society forces that are developing and testing new forms of economic activity even today.

In addition, another measure proposed by scientists, namely lowering the birth rate more quickly, is becoming more important. Although it would not have positive effects in relation to the window of opportunity concerning climate change, it would be helpful in the longer term. These scientists estimate that if the global population grew by one billion fewer people, this would save 1.3 to three billion tons of CO<sub>2</sub> emissions per year.<sup>3</sup>

The Berlin Institute for Population and Development is working on a study on lowering the birth rate in sub-Saharan Africa. The focus is on education for girls and family planning as well as supporting the value-added chains in the agricultural sector and expanding decentralized energy supply based on renewables. According to the most recent estimates by the United Nations, Africa's population will grow by a billion people over the next 35 years. In a "business as usual" scenario, the only option for millions of Africans in the near future would be migration—especially to Europe.

Some of these proposals developed by scientists have been on the table for years, but the political community has not taken them up. That is why civil society must take the initiative and make the political community take action. However, this presupposes an educated civil society that has been galvanized about these issues. This can and will succeed only if the general public is informed, without an excess of consideration, about the consequences that unchecked climate change will have even for our children, and all the more for our grandchildren. This has nothing to do with spreading end-of-the-world doomsday scenarios, least of all if it is demonstrated at the same time that it is still in our hands to keep climate change within tolerable limits—without throwing society back to the stone age. On the contrary: Could anything be more irresponsible vis-à-vis the global community than letting it continue on its path toward avoidable ruin unknowingly or with vague promises? In light of the window of opportunity that still exists in the face of climate change, a wake-up call coming from civil society appears to be the only opportunity to set the course toward climate change within tolerable limits.

To this end, we—the educational initiative Encouraging Sustainability, sponsored by the ASKO EUROPA-STIFTUNG, the European Academy Otzenhausen, and my foundation Forum für Verantwortung—plan to network with progressive civil-society organizations concerning sustainability under the umbrella of climate mitigation.

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