



# World in Transition: A Social Contract for Sustainability

## Introductory Session

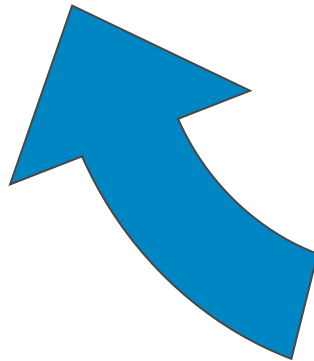
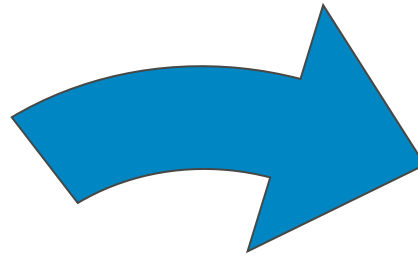
Dr. Inge Paulini  
Secretary-General  
German Advisory Council on Global  
Change (WBGU)

Nadine Dembski  
Virtual Academy for Sustainability and  
Center for Multimedia in Teachings  
(ZMML), University of Bremen

**About the  
Lecturers**

**Relevance of the subject:  
World in Transition**

**Information  
for you as  
students**



### We would like to:

- introduce the subject you to.
- generate sensibility for the challenges related to the transformation towards a low-carbon society.
- give you an overview of the main areas of action.
- motivate you to intensify your knowledge about the subject.



Reference is the WBGU report “World in Transition – A Social Contract for Sustainability”

In the forthcoming lectures the WBGU

- explains the reasons for the urgent need for a post-fossil economic strategy
- concludes that the global transition towards sustainability is achievable
- presents ten concrete packages of measures to accelerate the imperative restructuring

## (2) overarching learning outcome

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You will learn

- What the current global megatrends are
- How values are changing globally
- What the key characteristics of the Great Transformation are
- Why the transformation is technically and economically feasible
- What the challenges for transformation governance are
- About the role of change agents in the transformation
- And about the role of science and education

- Introductory Session

### Transition: Concept and Problem

- Overview: World in Transition (Interview)
- Global Megatrends
- Climate Change and Climate Impact

### Transformation: Concept and Realization

- The Great Transformation: A heuristic Concept
- Technical and Economic Feasibility of the Transformation
- Financing the Transformation and the Role of Carbon Markets

### Actors in Transition Management

- A new Statehood within the Multilevel System
- Agents of Transformation
- Scientific Advice for Policymakers

### Recommendations for Transition Management

- Instruments and Recommendations for Action
- Recommendations for Research and Education

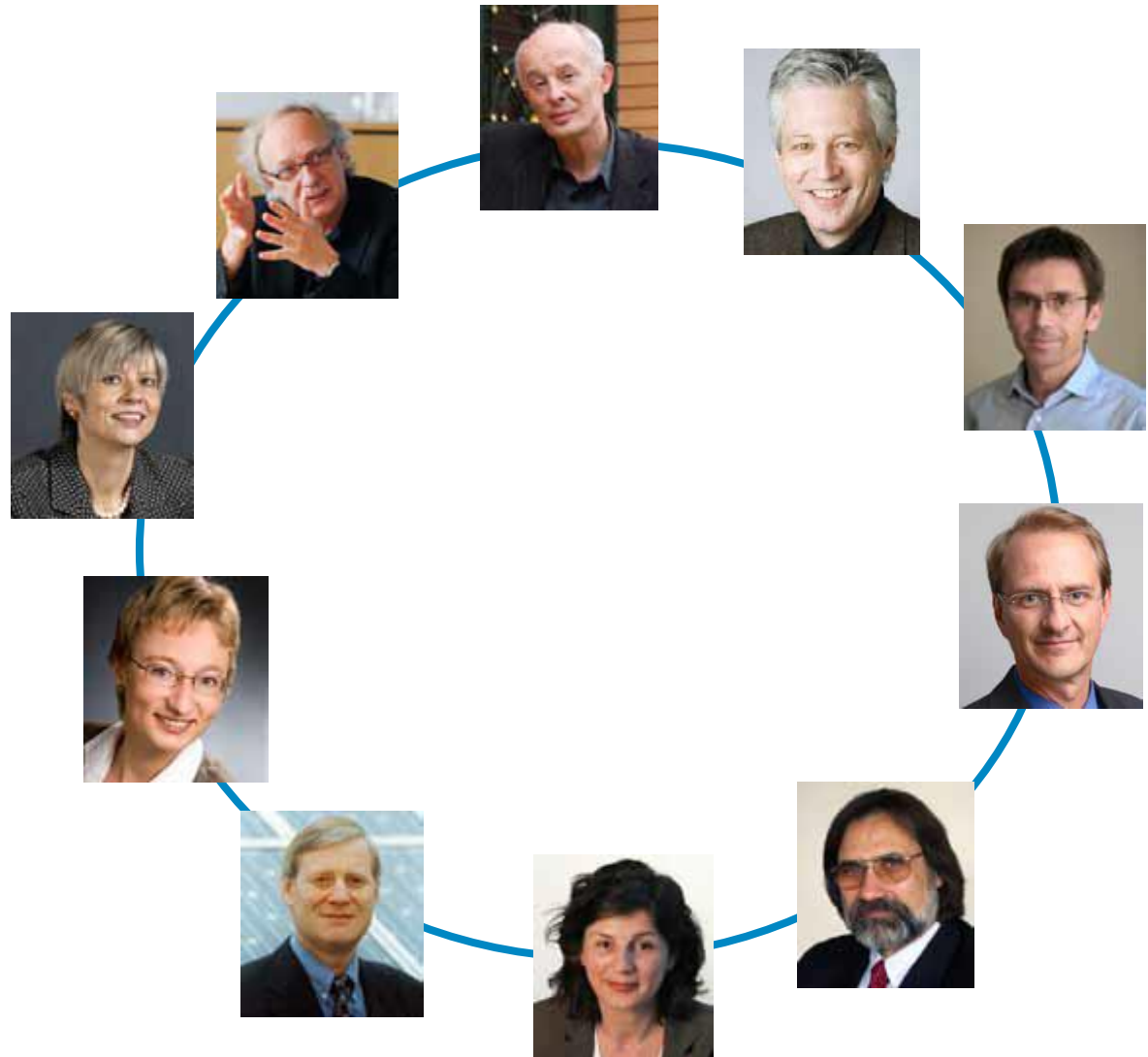


### (3) Speakers

## Council members

Fifth term

1. November 2008  
to 31. October 2012



## WBGU Chair Hans Joachim Schellnhuber

Director of the Potsdam Institute for Climate Impact Research (PIK)

Professor for Theoretical Physics, University of Potsdam

External professor at the Santa Fe Institute, USA



Memberships (selection):

- Governing board chair of the Climate-KIC (*knowledge and innovation community*) of the European Institute of Innovation and Technology (EIT)
- Chair of the Standing Committee on Climate, Energy and Environment of the German National Academy of Sciences (Leopoldina)
- US National Academy of Sciences
- Max Planck-Society



## WBGU Vice Chair Dirk Messner

Director of German Development Institute (DIE), Bonn

Professor for Political Sciences at the University of Duisburg-Essen



Co-Director of the Käte Hamburger Centre for Advanced Studies on Global Cooperation Research (University of Duisburg-Essen)

Memberships (selection):

- Scientific Advisory Board on EU Development policy (EU Commission, Commissioner Andris Piebalgs)
- The World Bank's 'Knowledge Advisory Commission'
- The China Council for International Cooperation on Environment and Development

## WBGU Member Claus Leggewie

Director of the Institute for Advanced Study in the Humanities (KWI) of the University Alliance Metropolis Ruhr



Professor for Political Science at the University of Gießen

Founding Director of the Center for Media and Interactivity, Gießen

Director of the Käte Hamburger Centre for Advanced Studies on Global Cooperation Research (University of Duisburg-Essen)

## WBGU member Reinhold Leinfelder

Professor at the Institute of Geological Sciences,  
Freie Universität, Berlin

Affiliated Carson Professor, Rachel Carson Center for  
Environment and Society of the Ludwig-Maximilian  
University Munich



Focus: geobiology, biodiversity, anthropocene science and  
science communication

## WBGU member Nebojsa Nakicenovic

Professor of Energy Economics, Vienna University of Technology, Austria

Acting Deputy Director of the International Institute for Applied Systems Analysis (IIASA), Laxenburg (Austria)



Director of the Global Energy Assessment

He served as (selection):

- Coordinating IPCC Lead Author, 4th IPCC Assessment Report
- Coordinating Lead Author, Millennium Ecosystem Assessment
- Convening Lead Author, 2nd IPCC Assessment Report
- Convening Lead Author, IPCC Special Report on Emissions Scenarios
- Lead Author, 3rd IPCC Assessment Report

## WBGU member Stefan Rahmstorf

Professor for Physics of the Oceans at Potsdam University

Head of the Earth System Analysis Department at the  
Potsdam Institute for Climate Impact Research (PIK)



Research focus on the role of ocean currents in climate change

Memberships (selection):

- American Geophysical Union
- Academia Europaea

## WBGU member Sabine Schlacke

Professor of Public Law, specializing on German, European and International Environmental and Administrative Law

Executive Director of the Research Centre for European Environmental Law, Bremen University



## WBGU member Jürgen Schmid

Aerospace Engineer

Director of the Fraunhofer Institute for Wind Energy and Energy System Technology, Kassel and Bremerhaven

Professor at the University of Kassel

Head of the Department for Efficient Energy Conversion

Chair of the executive board of the Institute for Solar Energy Technology



## WBGU member Renate Schubert

Professor for Economics at the Swiss Federal  
Institute for Technology, Zurich

Director of the Institute for Environmental Decisions



Memberships (selection):

- Advisory Council at the Federal Ministry for Economic Cooperation and Development
- German Research Foundation (Principal Committee, Senate, Board of Governors)
- Advisory Board of the Center for Research on Environmental Decisions





**Dr. Silke Beck**

Senior Research Scientist, Helmholtz Centre  
for Environmental Research – UFZ  
Department of Environmental Politics

### Areas of Expertise & Research:

- Global Environmental Assessment
- Science and Public Policy
- New Forms of the Governance of Science
- Science and Technology Studies
- Comparative Policy Analysis
- Environmental Governance



**Dr. Daniel Klingenföld**

Head of Director's Office at the Potsdam  
Institute for Climate Impact Research (PIK)

### Areas of Expertise:

- Climate Policy
- Carbon Market Design
- Theories of International Cooperation

- University Students that want to acquire ECTS credits for their general studies.
- The videos are also available for watching for all people interested.
- The videos are protected by copyright. Further use of the material has to be approved by the Virtuelle Academy for Sustainability.



- eLearning offers you the possibility to study the lecture self-contained.
- You can use your own timetable. There is no compulsory attendance at any time.
- Every subject is divided into three episodes of 30 minutes.
- The first and second episode are always presentations, while the third episode contains an interview with the lecturer.
- The interview engrosses the ideas of the lecture and clarifies proceeding questions.
- We also offer a learning platform that makes it possible to exchange your thoughts with other students and use more learning materials.



- You can gain 3 Creditpoints with the lecture.
- A workload of 90 hours is intended for the lecture.
- Within that time you will have to:
  - watch the videos and work through them,
  - do the exercises discretely,
  - review further literature and
  - prepare the exam.

  
**3 Creditpoints**

### Electronic examination:

- As a student you have to register as a participant on our learning platform (Login under: [www.va-bne.de](http://www.va-bne.de))
- There additional information will be provided for you.
- All information about date and place of the exam will be offered on the learning platform.
- If your university is not one of our cooperation partners, you can contact us and we will support you in the process of external validation.

### Composition of the exam and types of question:

- Questions will be asked about every episode of the lecture.
- You can find examples for possible types of questions here: <http://www.eassessment.uni-bremen.de>.
- For a better preparation you can use the demo examination: <http://uebung.eassessment.uni-bremen.de>



### **With questions about lecture or exam contact:**

Nadine Dembski

University of Bremen

[dembski@va-bne.de](mailto:dembski@va-bne.de)

Phone: +49(0)421 – 218 618 13

### **With questions about technical support contact:**

Alexander Hillmann

University of Bremen

[hillmann@va-bne.de](mailto:hillmann@va-bne.de)

Phone: +49(0)421 – 218 614 62