

# 1. NKGCF: Von der Umweltforschung zur globalen Forschung

1996: DFG und BMBF beraten sich hinsichtlich Entwicklung und Beiträgen zu den internationalen Global Change Programmen.

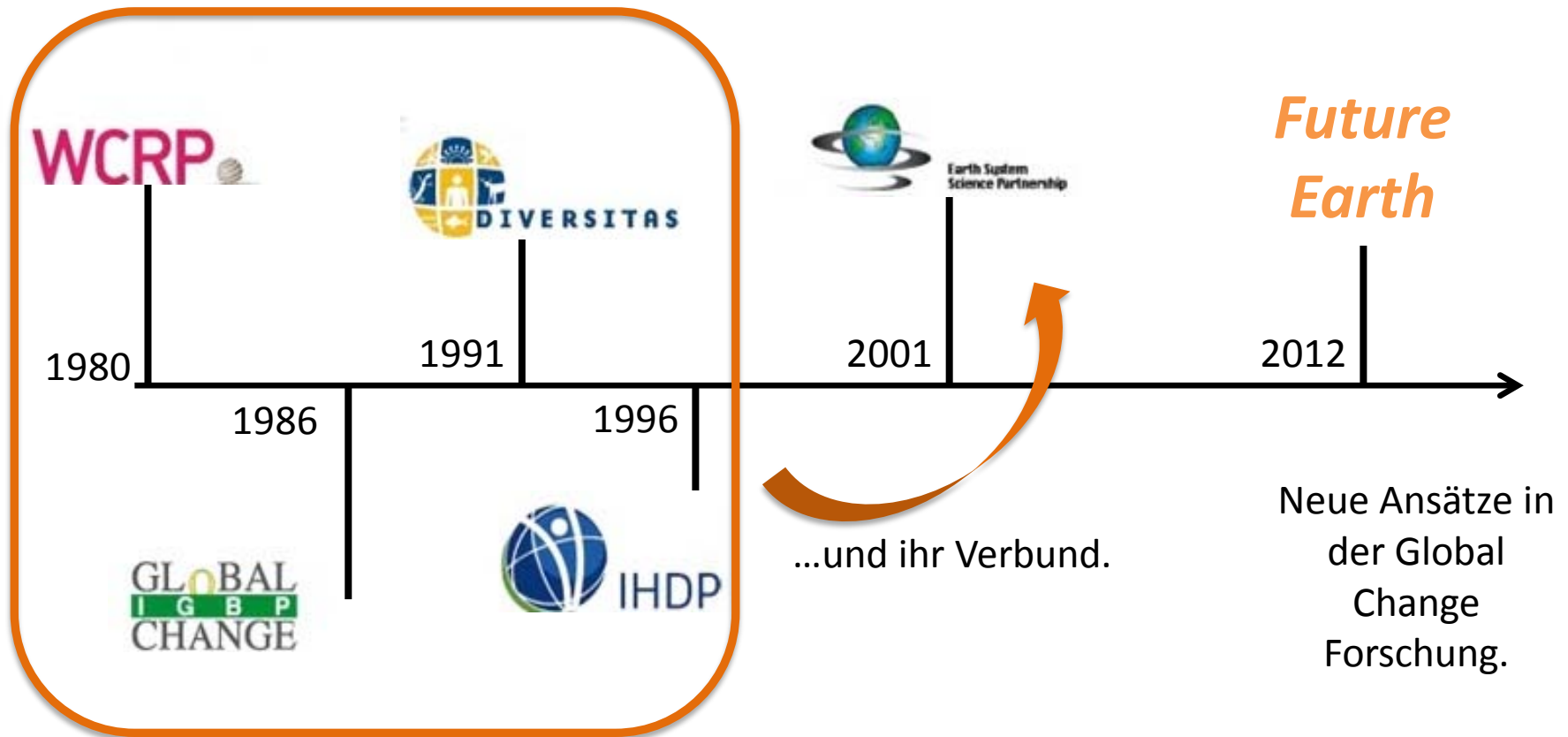


## Gründung des Nationalen Komitees für Global Change Forschung (Mandat: Präsidium der DFG)

Mitglieder:

<b>Prof. Gernot Klepper Ph.D.</b> <i>Chair</i>	<b>Resource Economics</b>	
Prof. Dr. Antje Boetius <i>Co-Chair, Diversitas liaison</i>	Microbiology	
Prof. Dr. Meinrat O. Andreae <i>Co-Chair, IGBP liaison</i>	Biogeochemistry	
Prof. Dr. Peter-Tobias Stoll <i>Co-Chair, IHDP liaison</i>	Environmental Law Intern. Business Law	
Prof. Dr. Martin Visbeck <i>Co-Chair, WCRP liaison</i>	Physical Oceanography	
Prof. Dr. Christoph Böhringer	Economic, Environment and Energy Policy	
Prof. Dr. Katrin Böhning-Gaese (Since 2011)	Biodiversity and Area Dynamics of Vertebrates	
Prof. Dr. Hans-Georg Friede	Resource Management, Ecology	
Prof. Dr. Armin Grunwald (Since 2010)	Technology Assessment and Systems Analysis	
Prof. Dr. Elisabeth Kalko	Animal Ecology	
Prof. Dr. Frauke Kraas	Anthropogeography, Urban Research	
Prof. Dr. Wolfgang Lucht	Earth System Modeling	
Prof. Dr. Ulrich Platt	Environmental Physics, Experimental Physics	
Prof. Dr. Michael Schulz	Paleoclimate Research	
Prof. Dr. Georg Teutsch	Applied Geosciences, Hydrology	
Prof. Dr. Wolfgang Weisser (Till 2010)	Terrestrial Ecology	
Dr. Harry Lehmann	Federal Environmental Agency (UBA)	<b>EX OFFICIO</b>
Dr. Gisela Helbig	Federal Ministry of Education and Research (BMBF)	
Dr. Bettina Schmalzbauer	Scientific Secretariat NKGCF	
Dr. Johannes Korte	German Research Foundation (DFG)	

## „Future Earth“: Ein Rahmenprogramm, das die vier globalen Umweltprogramme vereint.



## 2. Interdisziplinäre Themen des NKGCF

### Megacities and Global Change Research

**Sozialwissenschaftliche  
Forschung zum globalen Wandel**

**Global Change and  
Industrial Society**

**Atmosphärenforschung**

**Trockengebiete**

**Ländliche Lebensräume in Mitteleuropa**

**Klimaschraube Permafrost**

**Konsummuster,  
Ressourcenverbrauch  
und globaler Wandel**

**Regionale Klimamodellierung**

**Integrationsmethodische Grundlagen**

**Climate-Engineering: Integrierte Wasserforschung  
Verantwortungsinitiative der Wissenschaft**

## 2. Interdisziplinäre Initiativen des NKGCF

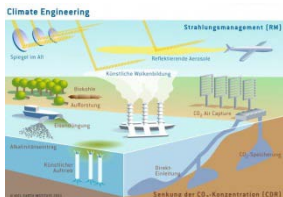
Deutsches Klimaforschungsprogramm (DEKLIM)

**GLOWA**   
Global Change in the Hydrological Cycle



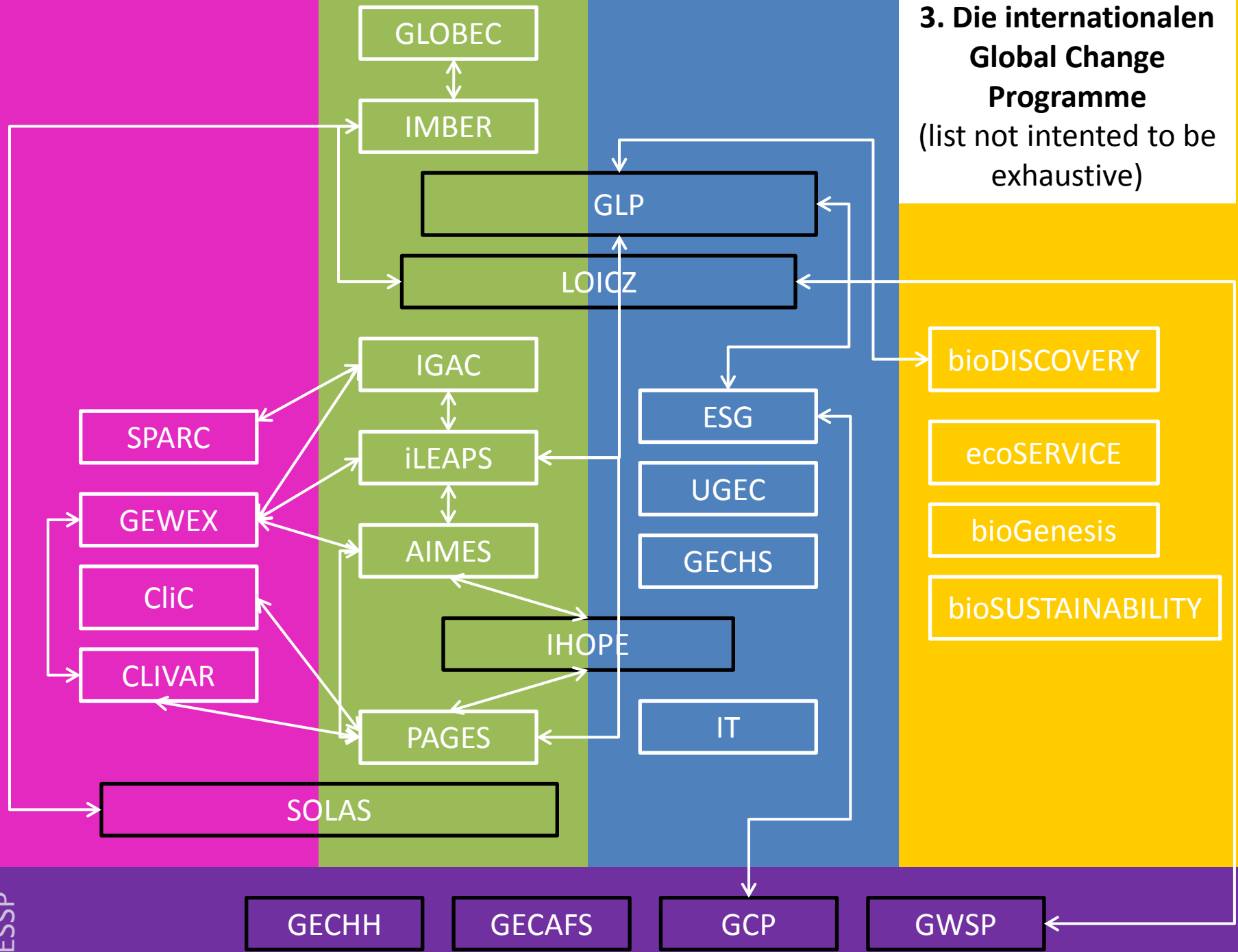
 megacities  
megachallenge  
Informal Dynamics  
of Global Change

 **SUSTAINABLE  
LAND MANAGEMENT**



**Bald:**  
DFG- SPP zu Climate-Engineering

### 3. Die internationalen Global Change Programme (list not intended to be exhaustive)



## 4. Integrative Forschung als neue Herausforderung

**BELMONT**  
FORUM



**ICCSU**

International Council for Science

**Future Earth:  
research for global  
sustainability**



 **UNITED NATIONS  
UNIVERSITY**

  
**UNESCO**  
United Nations  
Educational, Scientific and  
Cultural Organization

  
**IGFA**  
INTERNATIONAL GROUP OF  
FUNDING AGENCIES FOR  
GLOBAL CHANGE RESEARCH



WMO is an observer



### A new 10-year international research initiative

Future Earth will develop the knowledge for responding effectively to the risks and opportunities of global environmental change and for supporting transformation towards global sustainability. Future Earth will mobilize thousands of scientists who will work in concert with the public, policy-makers and other stakeholders to provide sustainability options and solutions in the wake of Rio+20.

# „Future Earth will develop the knowledge for responding effectively to the risk and opportunities of global environmental change and for supporting transformation towards global sustainability.“

- Solution-orientated research for sustainability, linking environmental change and development challenges to identify opportunities for future generations.
- Effective interdisciplinary collaboration across natural and social sciences, humanities, economics, and technology development, to find the best scientific solutions to multi-dimensional environmental change.
- Timely information for policy-makers by generating the knowledge that will support existing and new global and regional integrated assessments;
- Increased capacity building in science, technology and innovation, especially in developing countries, and engagement of a new generation of scientists.

### Three main themes to develop integrated research for global sustainability:

- **Dynamic Planet**  
Observing, understanding, projecting Earth and its state, processes and their interactions, including global thresholds.
- **Global Development**  
Providing the knowledge for sustainable, secure and fair societies, especially in energy, materials and other ecosystem services.
- **Transforming towards Sustainability**  
Understanding and evaluating strategies for governing sectors, and transformations needed to move towards a sustainable Future Earth.

Future Earth will build on the success of existing global environmental change programmes and projects to develop a stronger and broader community. During 2012, both the Planet Under Pressure conference in London and the Rio+20 Earth Summit were important steps along the road to building this new community for Future Earth.





### A new 10-year international research initiative

Future Earth will develop the knowledge for responding effectively to the risks and opportunities of global environmental change, and for achieving the goals of global sustainability. Future Earth will mobilize thousands of scientists while strengthening partnerships with policy-makers and other stakeholders to provide sustainability options and solutions in the years ahead.

• **ist lösungsorientiert,**

Future Earth will be a global platform to deliver:

- **ist interdisziplinär,**
  - **ist partizipativ (stakeholder),**
  - **bindet Entscheidungsträger ein, und**
  - **fördert Capacity Building.**
- Future Earth will be a global platform to deliver:
- **Solution-orientated research for sustainability,** linking natural and social science to address the challenges to satisfy human needs for food, water, energy, health;
  - **Effective interdisciplinary collaboration** across natural and social sciences, humanities, economics and technology to address complex and multi-faceted problems;
  - **Timely information for policy-makers** by generating the knowledge that will support existing and new global and national environmental change programmes and projects to develop a sustainable and resilient community. During 2012, both the Planet Under Pressure conference in London and the Rio+20 Earth Summit were important steps along the road to building this new community for Future Earth.
  - **Participation of policy-makers, funders, academics, business and industry, and other sectors of civil society** in co-designing research, education and capacity building activities;
  - **Increased capacity building** in science, technology and innovation, especially in developing countries, and engagement of a new generation of scientists.

### Three main themes to develop integrated research for global sustainability:

- **Dynamic Planet**  
Understanding and projecting Earth and societal system trends, drivers and processes, and their interactions; anticipating global thresholds.
- **Global Development**  
Providing the knowledge for sustainable, secure and fair stewardship of food, water, health, energy, materials and other ecosystem services.
- **Transforming towards Sustainability**  
Understanding and evaluating strategies for governing and managing the global environment across scales and sectors, and transformations needed to move towards a sustainable Future Earth.

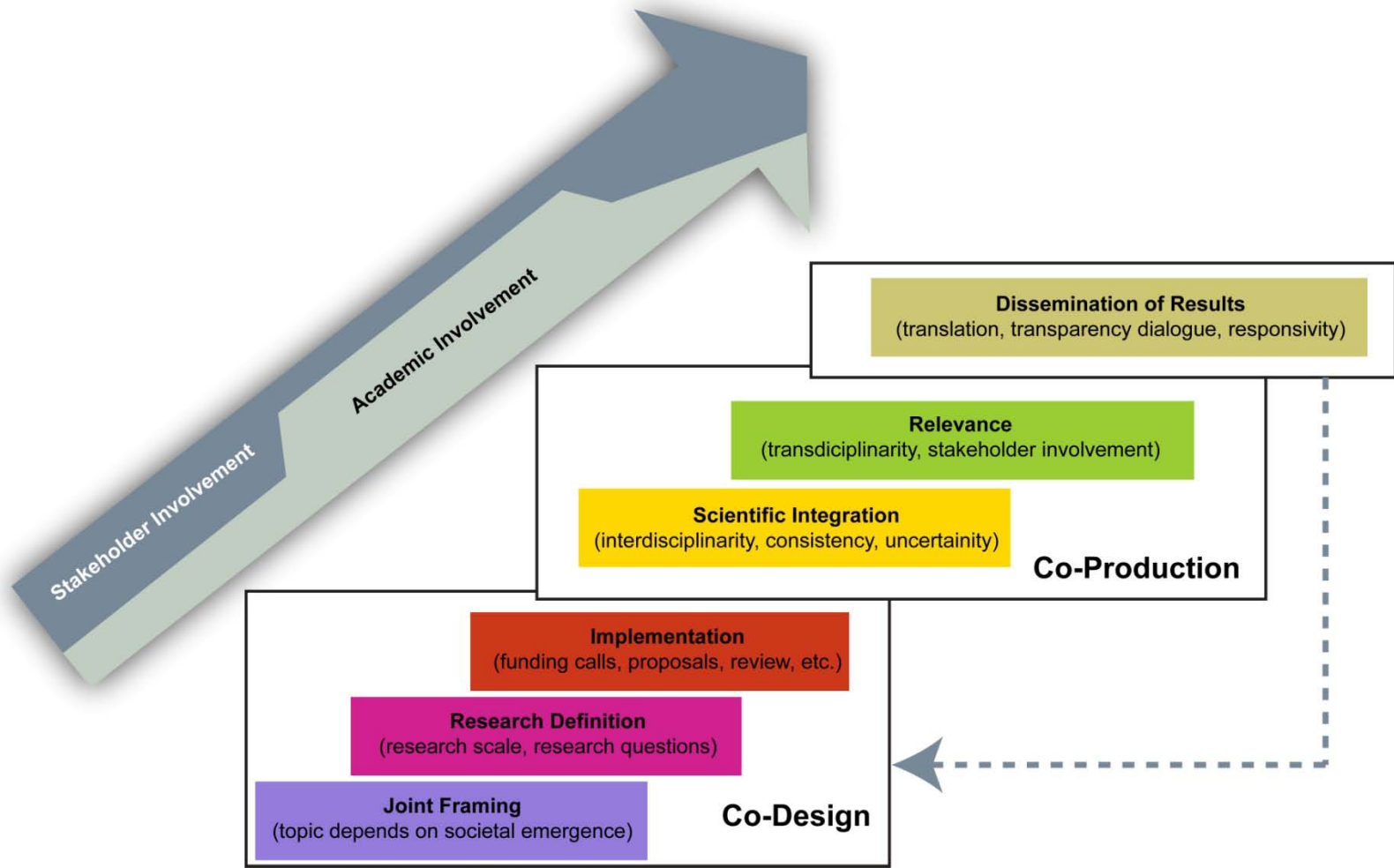
### Integrating existing endeavours

Future Earth will build on the success of existing global environmental change programmes and projects to develop a sustainable and resilient community. During 2012, both the Planet Under Pressure conference in London and the Rio+20 Earth Summit were important steps along the road to building this new community for Future Earth.



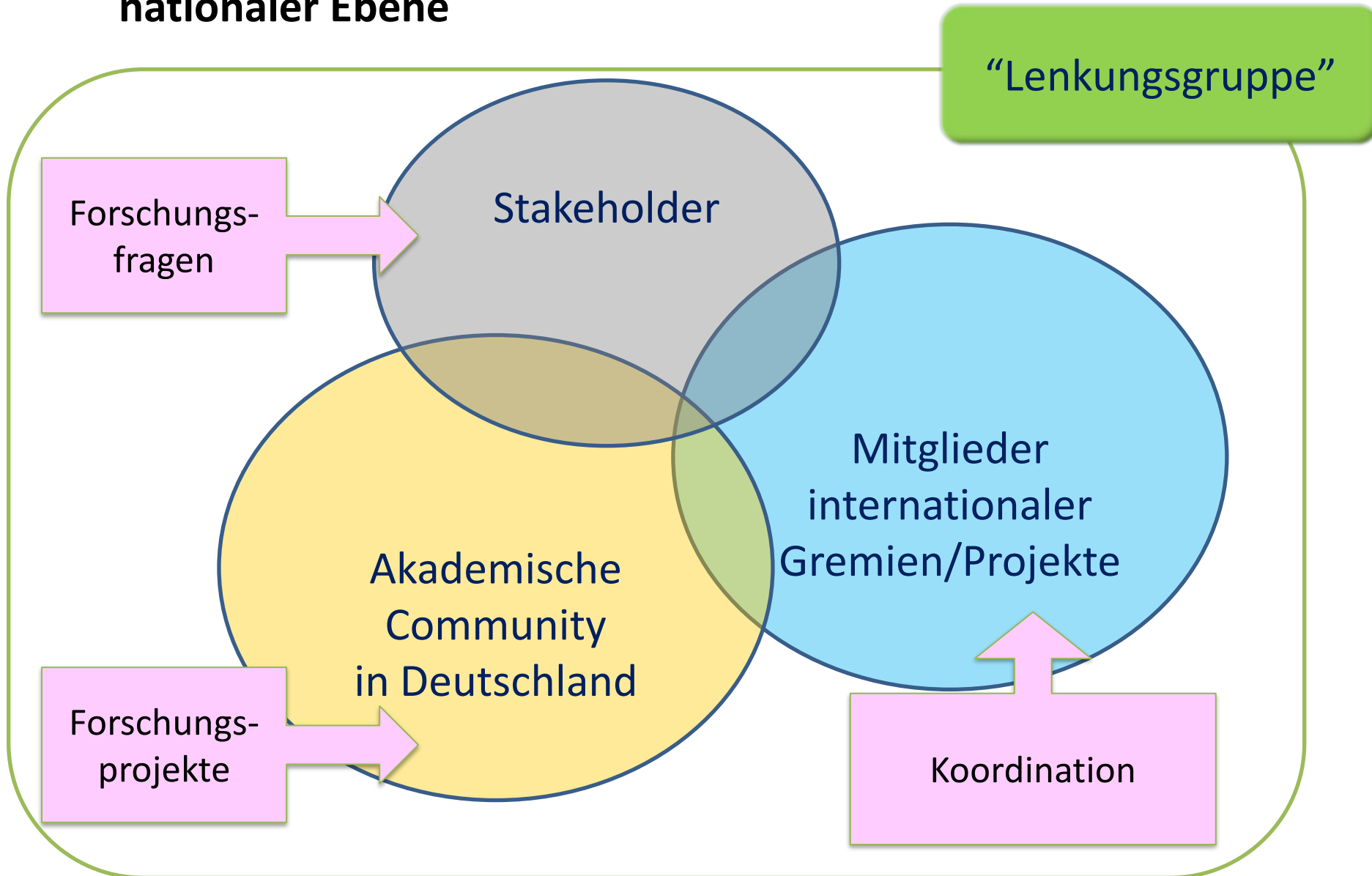


# 5. Neue Herausforderungen an die Organisation von Prozessen



Mauser W, Klepper G, Rice M, Schmalzbauer BS, Hackmann H, Leemans R, Moore H: Transdisciplinary global change research: the co-creation of knowledge for sustainability. Current Opinion on Environmental Sustainability 2013, (Submitted)

## 6. Überlegungen zu neuen Organisationsstrukturen auf nationaler Ebene



## 7. Neue nationale Plattform für integrative Nachhaltigkeitsforschung in Future Earth

Deutsches Komitee für Nachhaltigkeitsforschung in Future Earth  
*German Committee Future Earth*

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### Organisation:

- 6 Mitglieder aus unterschiedlichen Fachbereichen, Universitäten und außeruniversitären Forschungseinrichtungen,
- ein Wissenschaftliches Sekretariat,
- Arbeitsgruppen, Workshops, Konferenzen, etc.,
- berufen von der Deutschen Forschungsgemeinschaft (DFG) im Februar 2013

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### Aufgaben:

- Entwicklungsprozess von „Future Earth“ mitgestalten,
- deutsche Beiträge und Interessen identifizieren,
- Themen und integrative Forschung auf nationaler Ebene im Zusammenwirken mit den in der Nachhaltigkeitsforschung tätigen Forscherinnen und Forschern weiterentwickeln,
- strategische Beratung des DFG-Präsidiums im internationalen Kontext zu „Future Earth“.

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### Wir unterstützen bei:

- Identifizierung gesellschaftsrelevanter Forschungsthemen im sogenannten Co-Design (dem Dialog zwischen Wissenschaft, Gesellschaft und Forschungsförderern).
- Konzeption integrativer Forschung.
- Anbindung bzw. Verbindung deutscher Forscher der natur- und gesellschaftswissenschaftlichen Bereiche.