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## Sustainability in Higher Education: Developments in Germany

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### Overview:

1. The challenge of unsustainability and sustainable development
2. Sustainable development and (higher) education – international context and developments in Germany
3. Sustainability transition in higher education institutions – case study Leuphana University Lüneburg
4. Outlook: Sustainability in higher education in times of economic turmoil – risks and opportunities

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## The challenge of unsustainability and sustainable development

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### Long-term socio-economic dynamics

Steffen et al. 2004

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### Long-term natural dynamics

Steffen et al. 2004

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### On the way to sustainability?

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## Sustainable Development and (higher) education – international context and developments in Germany

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### International Context: institutionalization of sd

- Stockholm-Conference on the environment (1972)
- Brundtland-Commission report (1987)
- Rio-Conference on Environment and Development (1992)
- Several global conferences on different aspects of sustainability during the 90ties: climate change, biodiversity, urbanization etc. (emergence of global governance); multi-level, multi-sector, multi-stakeholder activities started
- Copernicus Charter for Sustainable Development / Confederation of European Union Rectors Conference (1993)
- Global Environmental Change Conference Amsterdam (2001)
- Johannesburg Conference on Sustainable Development (2002)
- UN Decade on Education for Sustainable Development (2005)

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### International context: shared understanding

- Regulative idea (comparable to 'democracy'):
  - "Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (WCED (ed.; 1987): *Our Common Future*. Oxford, New York)
  - Anticipatory co-optimization of ecological stability, social justice and economic development.

→SD is analytically based and normative endeavour: challenge for academic self-understanding

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### International context: Sustainability Sciences – emerging scientific field

- Sustainability Studies programs – mostly developed out of environmental science departments – at many Universities around the world including top Universities such as Tokio University, Columbia University, MIT, Harvard, ETH Zürich
- Sustainability Sciences Journals; Conferences & Networks; Chairs, Postdoc positions, doctoral programs
- Sustainability Science:
  - interdisciplinary (economics, ecology, climatology, sociology, political science etc.)
  - transdisciplinary (collaboration between science and societal actors)
  - transition-oriented (human-nature-interaction)

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### Germany: developments and contributions

- Education for sustainable development ('BLK 21', 1999)
- Socio-ecological research program (Ministry for Research and Education; 1999)
- Research for Sustainability (Ministry for Research and Education; 2004)
- German Commission for UNESCO: National Committee Education for Sustainable Development (450 prize-winning projects, only 50 higher education)
- 45 Higher education institutions have signed the Copernicus Charta
- Regional Network for ESD of North German States (2005-2014)

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### Institutionalization of SD in higher education in Germany:

**Curricula:**  
325 sustainability-related study offerings:

- 54,6% study modules in disciplinary curricula
- 30,8% sustainability studies
- 14,2% some content in disciplinary modules

• 47,7% of all offerings are from engineering  
• 26,8% of all offerings are interdisciplinary

**But:**

- almost no systematic integration of sd in general studies
- only very few Universities have systematic approach to integrate sd in operations (sustainability management / reporting)
- research is mainly focused on environmental sustainability
- professional community / stakeholder relations in the context of sd rarely
- networks and centres in its infancy, growing out of established environmental research networks

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## Sustainability transition in higher education – case study Leuphana University Lüneburg

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## Development of SD at Lüneburg University

- 1997 Copernicus network
- 1999 Research and development project 'Agenda 21' (German Environmental Foundation)
- 2000 Task Force Environment
- 2000 Environmental Guidelines adopted by University
- 2000 Certification EMAS (ISO 14.001)
- 2001 Lüneburg Declaration "Higher Education for Sustainability – Towards the World Summit on Sustainable Development"
- 2002 New position: Environmental Coordinator
- 2003 Task Force Health Management
- 2004 Research and development project 'Sustainable University'
- 2005 UNESCO-Chair "Higher Education for Sustainable Development"
- 2006 Foundation Department "Environment & Engineering"
- 2008 Foundation Department "Sustainability Science"

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## Lessons learned:

- Sustainability research needs to be integrative and transdisciplinary (analytical-normative transformation process)
- Initiatives for sd need to be developed from within the University
- Sustainable development of higher education institutions need organizational change and learning process
- General rules for implementation and concretization of sd limited - openness to multiple ways to sd
- External structures may support successful implementation and further development
- Network building may support successful implementation and further development

→ Each institution of higher education has to find its way to sustainable development - strengthened by a supportive context

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## Outlook: Sustainability in higher education in times of economic turmoil – risks and opportunities

**Risks:**

- financial pressure at Universities
- interpretation of sd as soft issue and as marginal relevant
- decreasing interest of students

**Opportunities:**

- proactive communication: not too much, but not enough sustainability-orientation has caused the crisis
- ecological, social and economic master trends demand sd experts
- ecological, social and economic master trends demand general 'sustainability literacy'

→ Sustainability is like democracy – it's not a given, we have to live it every day!

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