

# Re-orienting Curricula – Instruments for Innovation

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# Purpose and Goals of HOCH-N–Education

The UN-Decade on ESD produced a multitude of pathways for and research on integrating Sustainability in Higher Education (HESD). Yet these innovations are still localized in particular universities, programs and disciplines. Main challenges are different disciplinary cultures whose potential and openness to integrating ESD differ greatly, limited resources, and necessary capacity building for teachers. HOCH-N-Education asks:

How can innovative HESD be further disseminated across universities in all disciplines and educational formats?

HOCH

Sustainability at universities: develop-network-report

**HOCH-N–Education offers** •a guidebook instruments for innovation based on empirical evidence, to foster opportunities for integrating **HESD on different levels:** 

**Approaches to integrating sustainability in HE** 

	Sustainability included as	<b>Students</b> opportunities	<b>Teachers</b> capacity building needed	<b>Change</b> necessary
A: "Add On" Entry level	topic	exposure to SD	low	none
B: "Weave Through" Intermediate	integrated in courses	engage SD as part of studies	medium	examination regulations
C: "Built in" Advanced	reorienting curricula, innovative forms	comprehensive development of key competencies	high + exteral experts	examination regulations + institutional change

**Educational formats for HESD** 

1: disciplinary curricula

single courses or study programs focused on content and conventions of particular disciplines

2: cross-disciplinary curricula minors, certificate programs etc., open to students from different disciplines

3: sustainability-curricula sustainability-programs or disciplinary curricula with explicit sustainability focus



#### An Image of Dynamic Interdependence

HESD Manifests at the Intersection of all University-Fields of Action

Each field contributes to HESD

- Education develops interdisciplinary collaborations and realworld-oriented learning opportunities
- **Research** offers research-based-learning, includes students in actual scientific practice
- **Transfer** includes students in real-world projects; offers continuity of connections to local actors

**HESD contributes to each field** 

- HESD offers innovations in pedagogies and teaching-learning environments for all disciplines; attractive learning environments
- HESD shapes innovative ideas for socially relevant research; improves mutual learning across disciplines & in transdisciplinary contexts
- HESD provides impulses and contributions for societal innovation and functions as vehicle for transfer

**HOCH-N–Education offers strategies** for mutually beneficial collaborations



**Governance** integrates sustainability criteria in accreditation and hiring; offers capacity building & resources

**Reporting** sets goals & indicators for HESD, and provides accountability in implementing HESD

- **Operations** develops the campus as a real-world laboratory for sustainable living
- HESD inspires transformation of governance structures, organizational innovation, and democratic participation in governance
- HESD inspires development of reporting as transformative process  $\langle \longrightarrow \rangle$ and instrument for institutionalizing sustainable development
- HESD provides arguments for green campus development, and collaboration with students/teachers on campus projects



### A Matrix for education processes with HESD HESD Manifests in the Interplay of Different Educational Forms

- This Matrix serves as a visual-spatial representation of where and how teaching events are located in an educational "field of tension": on the disciplinary – interdisciplinary/transdisciplinary axis, and on the receptive/transmissive - participatory/reflective axis
- The matrix visualizes both the diversity of teaching events at universities as well as the different requirements they entail
- Its function is to visualize the diversity of teaching events that contribute to HESD, and to provide a tool for assessing and creatively shape individual HESD-curricula
- The learning objectives of the individual quadrants differ in their goals and their modes of teaching and learning, knowledge transfer and -production
- All four quadrants have different requirements for teachers and the quadrants, but they need all four.

- Basics: This form of knowledge transfer is predominantly disciplinary-receptive and serves to provide students with foundational knowledge in their discipline
- Deepening: Characteristic of this quadrant is the active learner, the participatory teaching-learning relationship is to be understood as a continuum
- Extension: The aim is to train students who can think and communicate across academic boundaries
- Emergence: the narrative of the knowledge hub serves as a basic description; foundations and experience in the other three quadrants are necessary to become fully fluent and productive in this quadrant

# **HESD-Curricula will differ in how they utilize and move across**

#### Hoch-N–Education offers a Matrix for mapping transformative education



students

**How does your curriculum fill this space?** 

# Quality-Criteria and -Management in HESD – Orientation Guidelines

HESD seeks to enable students to participate in transformative processes towards more sustainable and just societies. To achieve this, it requires several components and an educational practice that emerges at their intersection. HOCH-N-Education develops orientation guidelines for quality criteria and -management in the process of reorienting curricula. Method: a systematic review of relevant literature, and research with best-practice universities, students, and teachers. Expected publication date: 11/2018





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