

Case River 21

ECHO Lunch Session: Sustainability in Higher Education
'Think big, begin small, act now'

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Join the UAntwerp Climate Team!!

Working group: Sustainability in Education

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Overview

- **Short history of Case River 21**
- **Objectives**
- **Practical approach**
- **Course development:**
 - Analysis
 - Design
 - Development
 - Implementation
 - Evaluation - pitfalls

Short history

- **Initiated in 1999 (pioneer)**
- **Collaboration of French, Dutch and Belgian universities**
- **Organised by the Institute of Environment and Sustainable Development (IMDO) at UAntwerpen**
- **Received EU funding until 2007**
- **Continued without funding and 3 remaining partners**
- **Current partners: University of Lille (Prof. Masson), Ghent University (Prof. Troch), University of Antwerp (Prof. Meire)**
- **Student backgrounds: Ma Environmental science, Adv Ma Think Water, Ma Geography, Ba Civil Engineering**

Objectives

- RIVER21 - envisioning the future of the world's river basins in the 21st century
- Intensive course with the River Scheldt as study case
- Future-oriented, international and interdisciplinary
- Integration of different disciplinary perspectives
- Overcome barriers of languages and cultures
- System analysis and strategic thinking to develop sustainable solutions for water management



Practical approach

- 2 weeks in trans-boundary river basin of the Scheldt
- interdisciplinary and international groups
- Phase 1:
 - Getting acquainted
 - Excursions source to mouth
 - Lectures from stakeholders (critical questions!)
 - Identify management issues & contrasting viewpoint



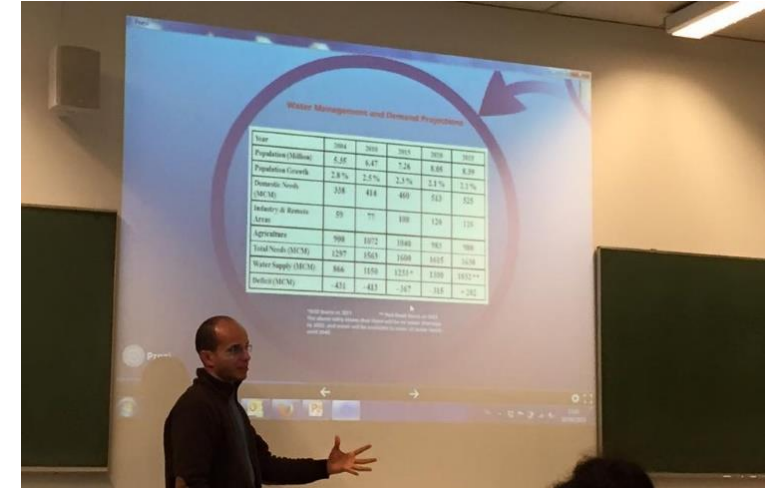
Practical approach

- **Phase 2:**
 - System analysis (e.g. DPSIR)
 - Integrated, well-thought solutions
 - Win-win-win's
 - Bridge gap between disciplines and nationalities
 - Negotiate shared understanding
 - Vision building



Practical approach

- **Phase 3:**
 - Students present vision on a desirable future
 - Integrated solutions for different users/stakeholders
 - Considering the physical environment, socio-economic aspects and institutional systems
 - Stakeholders are invited (communities of practice, feed forward)
- **Develop transdisciplinary language**



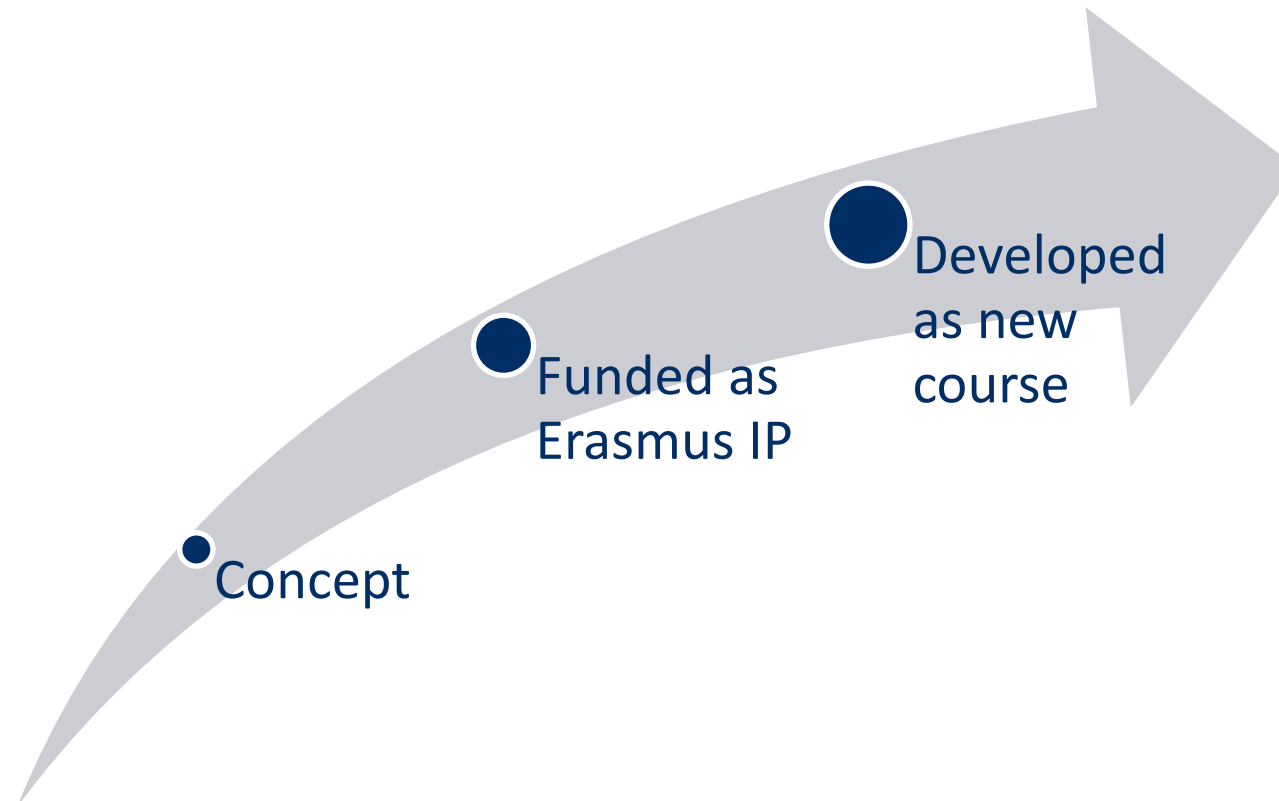
Course development: Analysis

- Idea for an innovative interdisciplinary course about IWM, explore novel teaching methods.
- EU WFD 2000: management plans at basin scale + integrated approach
- Chair Integrated Management Prof. Meire
- Research network: key persons F, B NL



Course development: Design

- EU subsidy for interuniversity cooperation provides the impulse
- IMDO offers administrative support such that UAntwerpen can coordinate the project



Course development: Development

- Didactical methods:
 - Pioneer course: learning by doing
 - Starting point: system thinking in IWM
 - Yearly evaluation: SWOT (improve interdisciplinary aspects, field excursions, group assignment)
 - Gradually evolved into the course that exists today
- Skills of lecturers:
 - Long and broad experience – not for starters
 - Experience with interdisciplinary research/ sectors
 - Rely on a diverse network of stakeholders
 - No professionalization traject existed: long-term coaching by senior staff members

Course development: Implementation

- Interdisciplinary skills of River 21



Systems thinking:

Students learn that the river is a water system with various functions (eg. shipping, recreation, ESS). They are confronted with management plans at different scales. They learn to see the the river basin as an integrated system.

Ethical thinking:

The course makes students aware of the underlying values and standards of policy visions and management practices. Students learn to make conscious choices in developing their strategy for a sustainable management plan.

Anticipatory functioning:

This competence is an essential element of the concept of the course. Students have to develop a future-oriented vision for sustainable management based on real data, predictive models (e.g. the consequence of climate change).

Strategic functioning:

Students have to think about strategic choices and change strategies to realise the different phases of the interventions they propose.

Interpersonal competence:

Students work in international interdisciplinary groups and learn together and from each other. They improve their communication skills, learn to discuss and negotiate, defend and support viewpoints, and collaborate with mutual respect.

Course development: Evaluation - pitfalls

- Only 3 partners remaining
- Drop in student numbers
- Loss of financial support in 2007 (cost 5000-6000€) <-> Erasmus + BIP??
- Not incorporated into curriculum (BaMa)
- Key persons have a new function – no longer involved
- Change in the organisation of involved educational programmes
- Difficulty of Faculty boundaries



<https://youtu.be/anqcaTwlDxA>

Questions?