

# ARCHitecture and roadmap to manage multiple pressures on lagoons

Amy M.P. Oen, Gijs D. Breedveld,  
and Adriaan Slob

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# Managing multiple pressures

- Urban, industrial, agricultural, and recreational activities have resulted in contaminated sediments
- Climate change and urbanization will exacerbate these existing pressures even further
- Integrated Coastal Zone Management balances the management of these pressures
- The ARCH research project
  - EU-FP7, 2011-2015
  - Theme: Lagoons in the context of climate change



# Lagoons



Poland

Russia

Vistula lagoon



# And estuarine coastal areas



# Study sites with multiple pressures

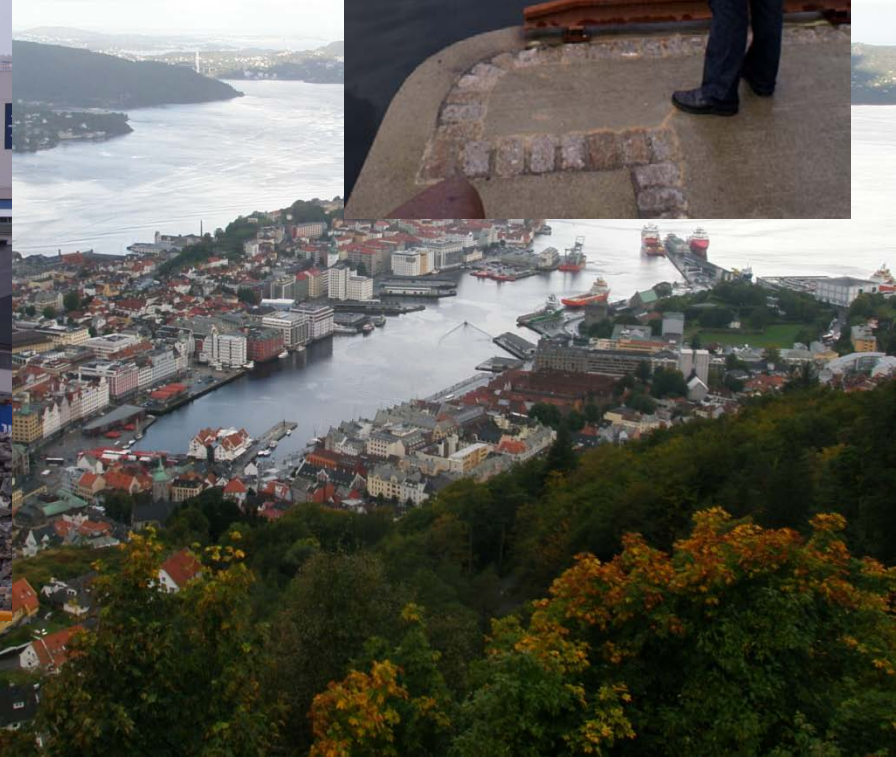
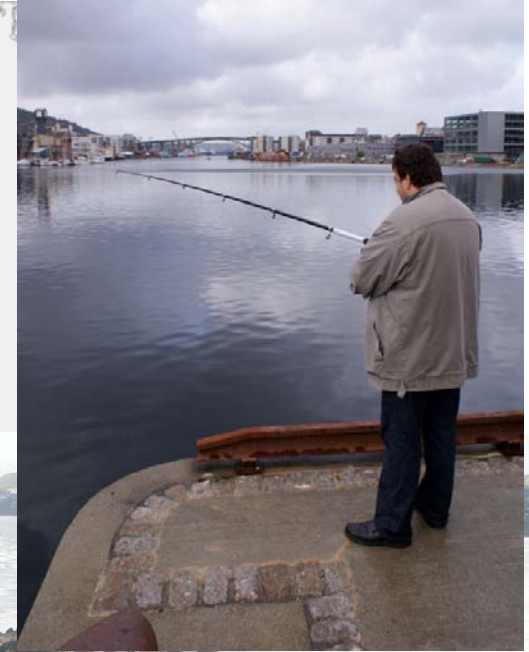


# Study sites with multiple pressures





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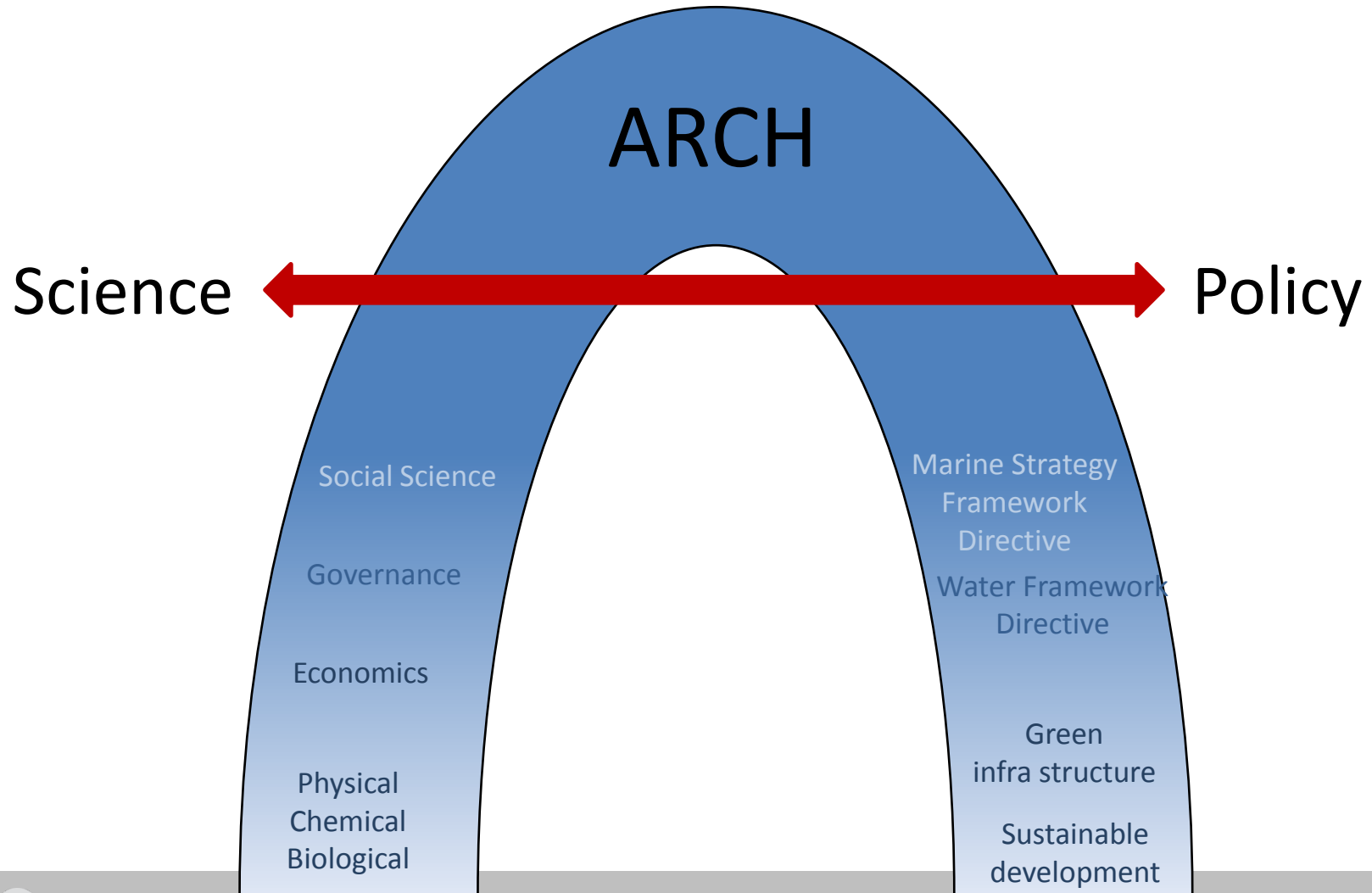
# Objective

- Develop participative methodologies in collaboration with the involved managers, policy makers and stakeholders to manage the multiple problems affecting lagoons in Europe
- Two important components towards this goal include
  - the promotion of an integrated research approach
  - the employment of a true participatory process

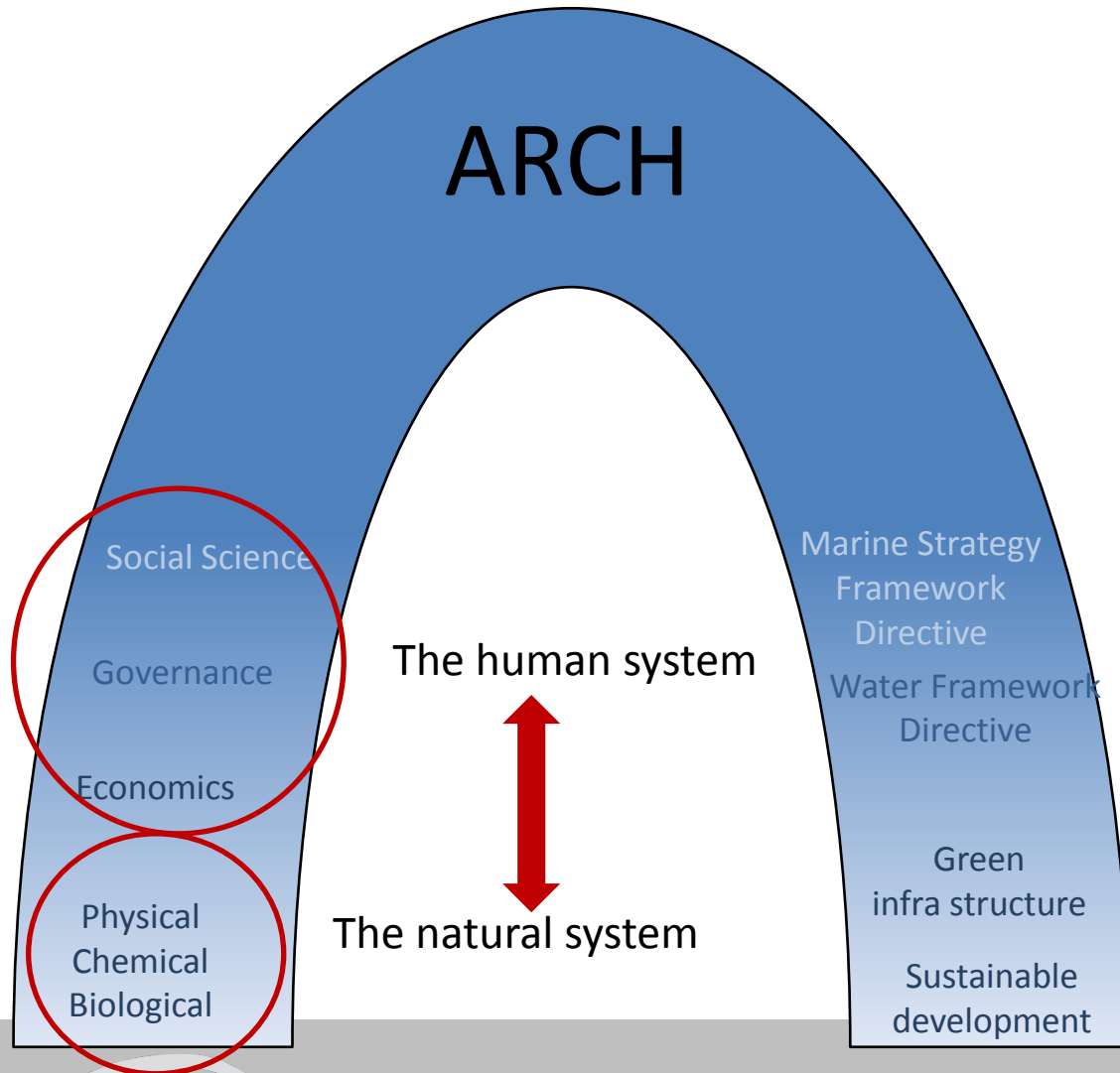




# Integrated research approach



# Integrated research approach



# State of the Lagoon report

ARCH – 'State-of-the-lagoon' report, Rhine Estuary - Drechtsteden





# Participatory methodologies

Poster corner presentations



Role-play simulations

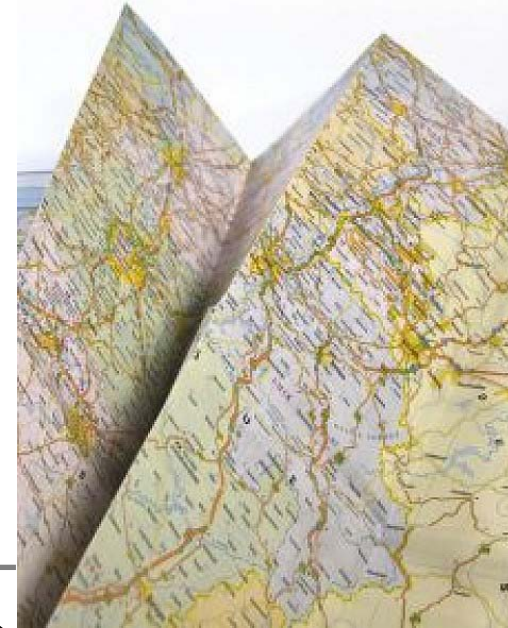
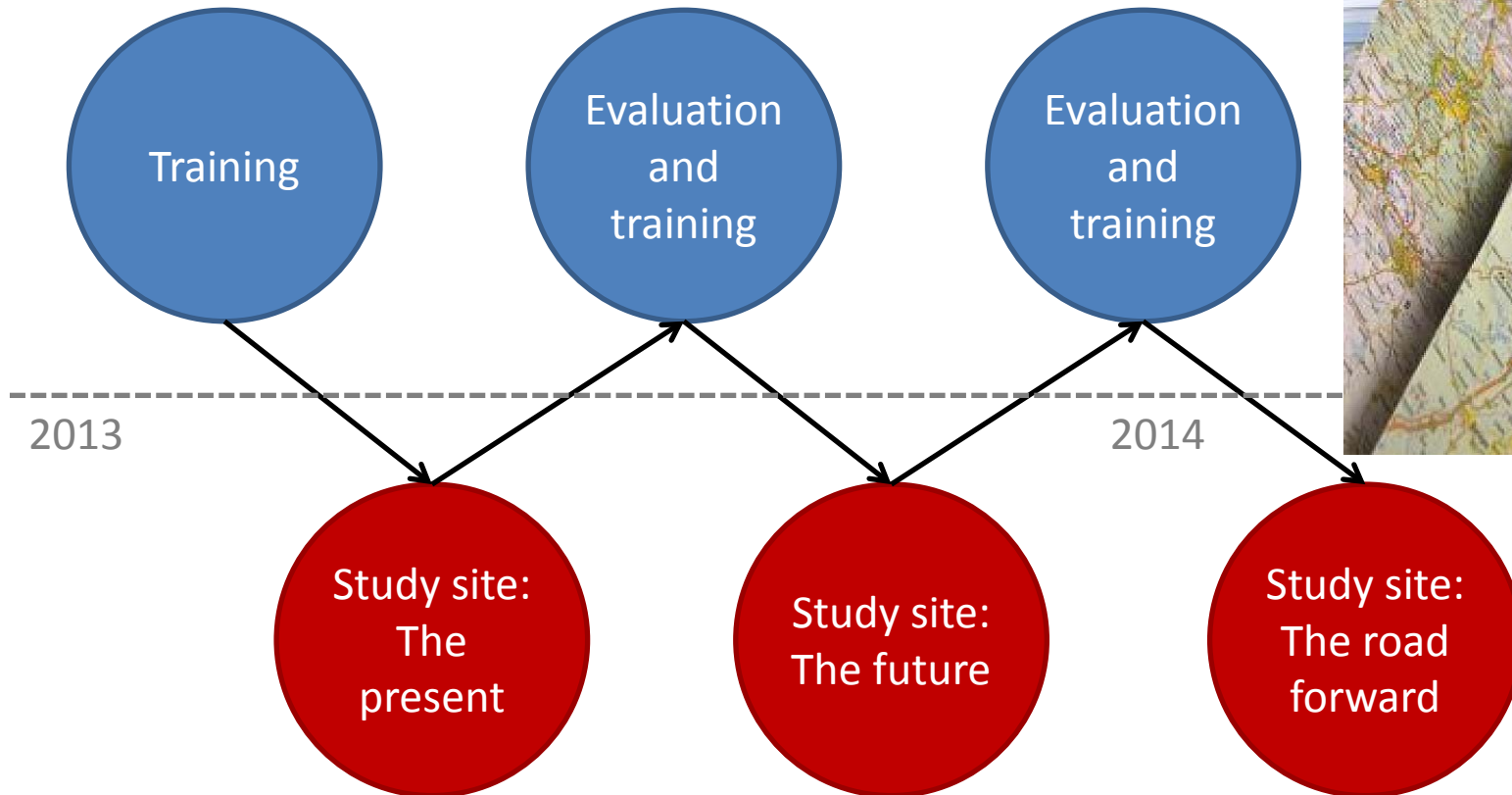


Group model building



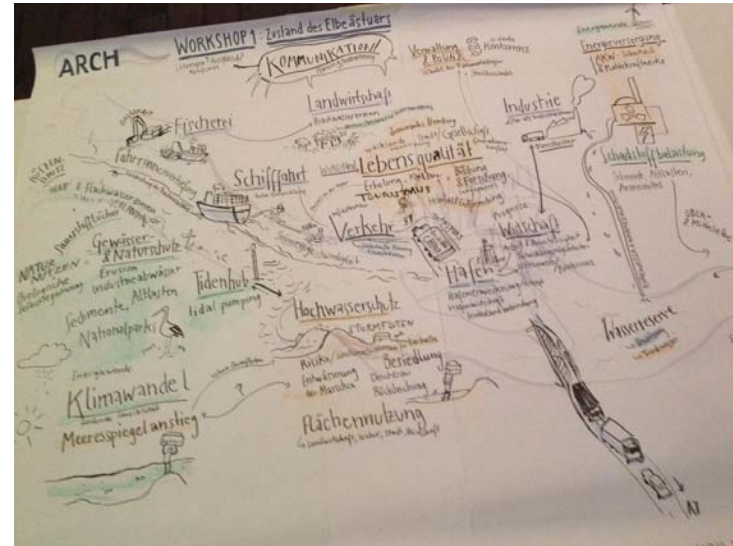
# The 'design' of ARCH: workshops for each case study site

Project partners



Local workshops at the case study sites

# Implementing a participatory process





# Scientific Knowledge Integration

- Theoretical frames: boundary spanning and interdisciplinarity
- Factors which appear to be present in the ARCH project and are considered to be important
  - Open mindedness of the project partners
  - Trust building between the partners
  - Role of facilitative leadership
  - Importance of developing a common vocabulary
  - Role of boundary objects in this respect

# State of the Lagoon report as a boundary object

- Facilitates knowledge transfer among partners
- Integrates key information from several disciplines
- Develops a common language for interaction
- Provides an overview of what is at stake
- Integrated further to “story-telling” document to help communicate the issues even better

# Excursions as boundary spanning activity

- Good reference point for problem framing and reality check (real problems, real people...)
- Recognise differences and similarities between the cases
- Informal meeting: getting to know each other
- Trust building

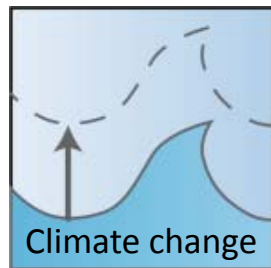




# Managing multiple pressures

## Science – policy integration

- All case study sites:



- Most case study sites:



*Symbols courtesy of the Integration and Application Network, University of Maryland Center for Environmental Science ([ian.umces.edu/symbols/](http://ian.umces.edu/symbols/))*

# The ARCH Consortium



<http://www.arch-fp7.eu/>

