

„Wadden Sea Islands as test beds for sustainable development and laboratories for innovation – Examples from the island of Juist (Germany) and Ameland (The Netherlands)“

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Preliminary research paper with Ingo Mose, Peter Schaal and Frans Sijtsma

Symposium „The changing futures of islands“
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Outline

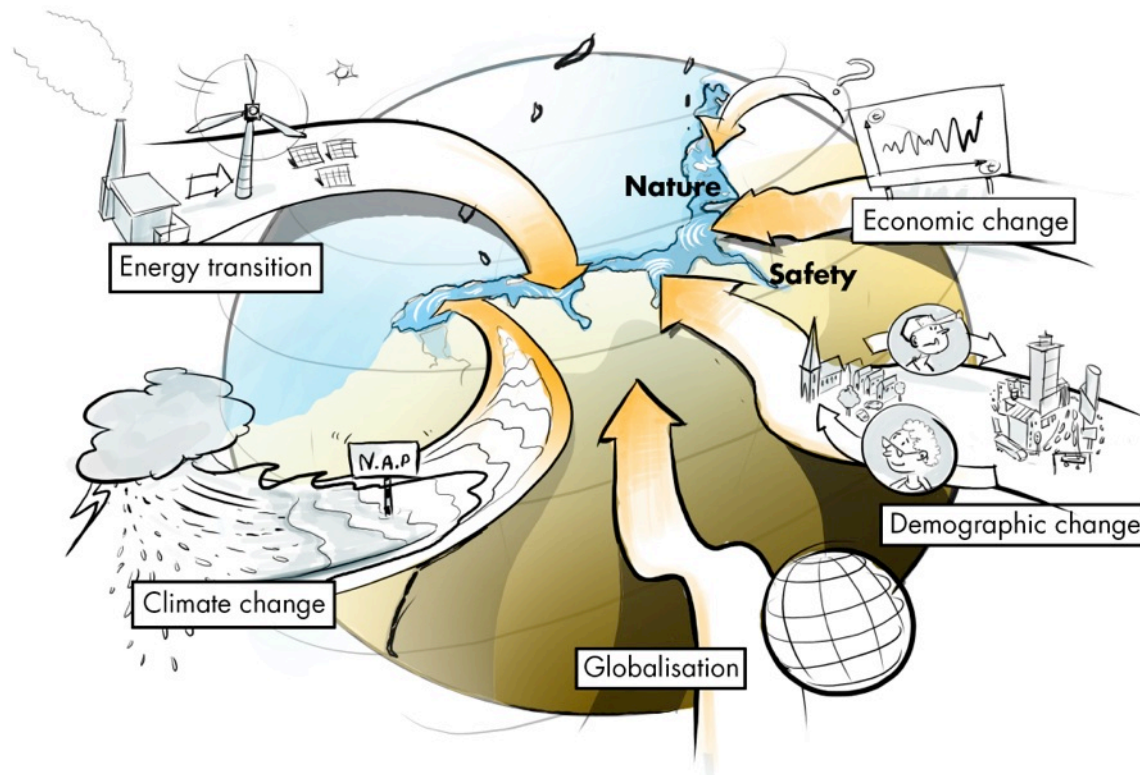
- Research context and theoretical background
- Methods
- First results
- Discussion
- Conclusion



- Research project “Wat Nu?”
 - Demographic change in the Wadden Sea region
 - Living labs and online governance approaches as nucleus for sustainable strategies and measures in tourist municipalities
 - Funded by the German Ministry for Education and Research
- Young Wadden Academy (YWA)
 - YWA is a body of five „young“ researchers established by the Wadden Academy in 2016
 - Main tasks: involve and support young researchers, stimulate vision development for future wadden sea reasearch, dissimilation of research findings into policy and management
- ZENARiO (Centre for sustainable spatial development in Oldenburg)
 - Interdisciplinary network at the Carl von Ossietzky University, which concentrates the spatial scientific competences of planning, social, economic, law and natural science disciplines

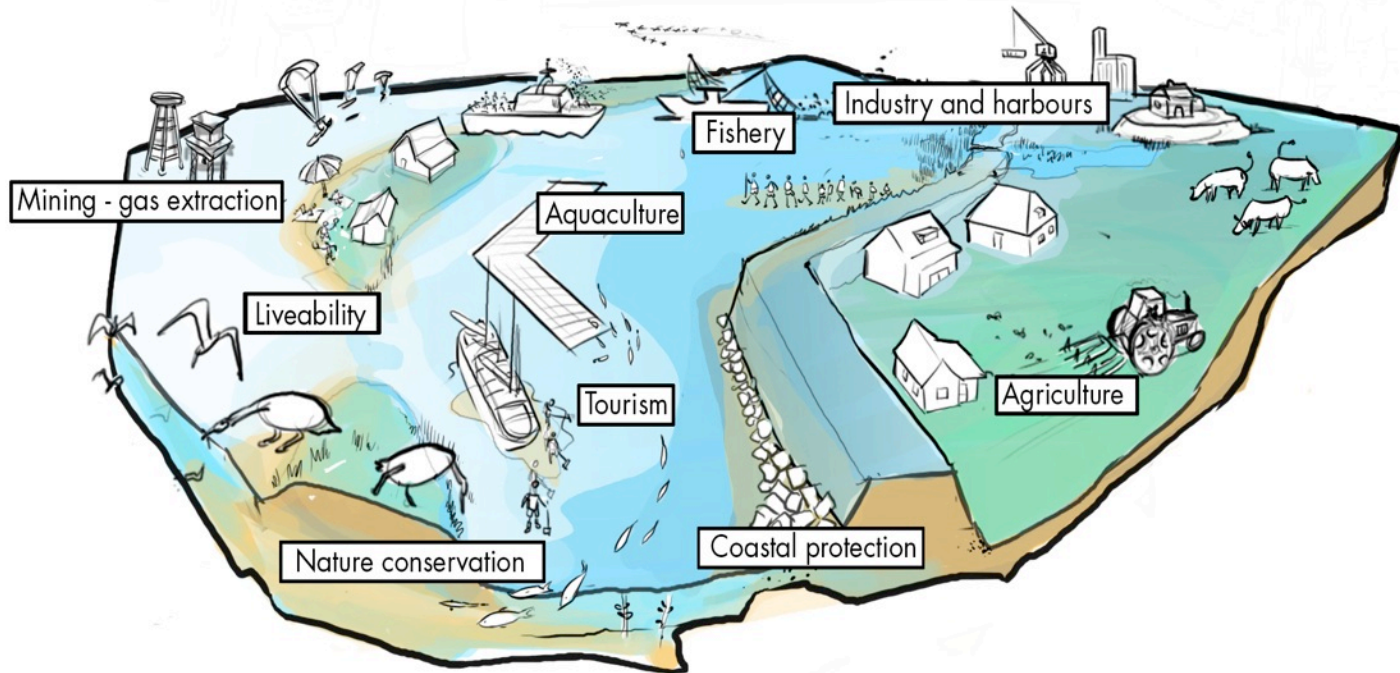


External forces driving change and transitions of the Wadden area



The Wadden Sea – the external driving forces and global trends

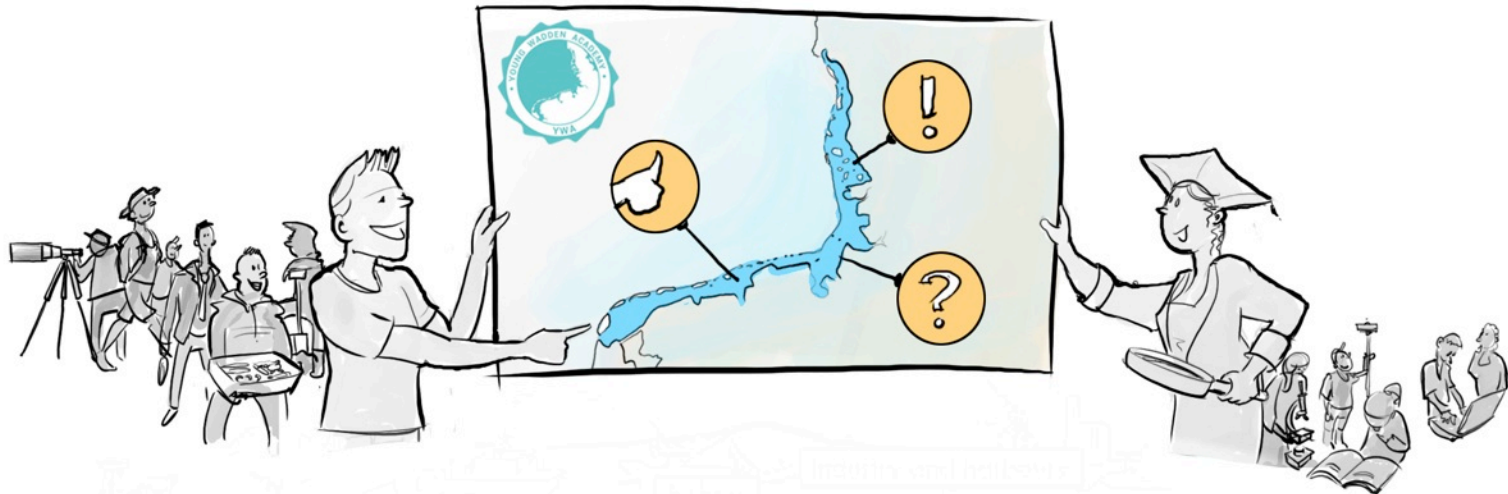
Internal forces shaping change/transitions



The Wadden Sea – the area and a straightforward sketch of functions and interests

*Implications for governance and research –
Need for joint decision-making and sustainable approaches*

Young Wadden Academy



The Wadden Sea – Governance and research implications

- Sustainability
 - Meeting the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987)
- MDGs and SDGs
 - From 8 Millennium Development Goals (MDGs) to 17 Sustainable Development Goals (SDGs) for the world's future with 169 detailed targets, negotiated over a two-year period at the UN, agreed to by nearly (193) all the world's nations in 2015
- Sustainable Islands
 - Islands are among the most vulnerable to climate change (Tompkins & Adger, 2004; Lazrus, 2012, Kizos et al., 2009).
 - Islands are especially suited to focus on sustainability due to their economic and geographical conditions! (Connell, 2018; Baldacchino and Kelman, 2014)

- Testbed or test bed
 - A controlled environment for experimentation and evaluation (Barr, 2008)
 - Used here as a generic term / framework
- Laboratories / Labs
 - physical or virtual spaces that enable and support innovation (technological or otherwise) of those who participate in the space (Bloom & Faulkner, 2016)
 - Used here as a generic term / framework
 - Living Lab or real word laboratories often used in urban context
- Innovation
 - Innovations are catalysers for the development of communities, when seen as a strategy to sustain growth, by easing the means to generate an opportunity and develop a business that seeks to satisfy the needs of its environment (Petit, 2007 as cited in Vargas & Liévano, 2017).

Islands as living labs, test beds or model regions?

- Islands as „Living Labs“?
- Clearly defined boundaries make islands perfect isolated laboratories (e.g. Galle, 2017)
- Forerunner (c.f. Ratter 2018, de Hoop, 2018)

„A living lab or real-world laboratory refers to a social context in which researchers carry out interventions in the sense of "real experiments" in order to learn about social dynamics and processes. The idea of a real-world laboratory translates the scientific laboratory concept into the analysis of social and political processes. It builds on the experimental turn in the social and economic sciences. There are close links to concepts of field and action research.“

(Schneidewind 2014, own translation)

Methodology

- Grounded theory (Alheit, 1999)
- Case Study Research (Gerring, 2009)
- Desk research
- Metaanalysis Expert interviews

Sources and material

- Literature
- Wat Nu?
 - Own research
 - Results and conclusions of a group project
- Bachelor- and Master theses

Masterarbeit
im Studiengang Sustainability, Economics and Management

Eine Insel auf dem Weg in die Zukunft -
Analyse der Nachhaltigkeitsstrategie der Gemeinde Juist
und ihrer Akzeptanz unter den lokalen Tourismusakteuren

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Bremen, 10.08.2017

Zentrum für nachhaltige
Raumentwicklung in Oldenburg

Kolloquium zur nachhaltigen Raumentwicklung im WiSe 2016/2017:

„Europäisierung von Küstenräumen
- Erfahrungen aus dem internationalen Nordseeraum“

BIS-Hörsaal/Hörsaal 2 im Bibliotheksgebäude am Uhlhornsweg, Mo: 16:00 bis 18:00 Uhr
Veranstalter: Prof. Dr. Ingo Mose (ZENARIO), Dr. Thomas Klenke (COAST)

24.10.2016	Prof. Dr. Ingo Mose, Dr. Thomas Klenke Universität Oldenburg	Europeanising Coastal Regions - das Jean Monnet Center of Excellence stellt sich vor
14.11.2016	Manfred Vollmer Waldemir Forum, Wilhelmshaven	Trilaterale Entwicklung im Wattenmeerraum unter besonderer Berücksichtigung von IKZM
28.11.2016	Uwe von Barga Bremen Ports, Bremenhaven	Europäische bzw. internationale Anforderungen an die Hafenwirtschaft im Nordseeraum
05.12.2016 Hörsaal 2	Anja Dornick Common Wadden Sea Secretariat, Wilhelmshaven	Europa konkret: grenzübergreifende Zusammenarbeit im INTERREG Projekt PROWAD—Protect & Prosper, nachhaltiger Tourismus in der Destination Wattenmeer
16.01.2017	Dr. Monika von Haaren Niederländische Staatskanzlei, Haarlem	Erfahrungen mit europäischen Förderprogrammen zur Raumentwicklung im Nordseeküstenraum
23.01.2017	Britta Restemeyer Fakultät für Raumwissenschaften, Universität Groningen	Auf dem Weg zu hochwasserresilienten Städten? Die Fallbeispiele von London, Hamburg und Rotterdam
30.01.2017	Dr. Thomas Klenke, Prof. Dr. Torsten Selck Universität Oldenburg Peter Süßbeck Nationalpark Niedersächsisches Wattenmeer	Podiumsgespräch: Zukünftige Herausforderungen der internationalen Zusammenarbeit im europäischen Nordseeküstenraum Moderation: Prof. Dr. Ingo Mose

Alle Studierenden und Lehrenden der Universität Oldenburg und der Jalle Hochschule, Vertreter aus Stadt- und Raumplanung, Forst- und Landwirtschaft und Naturschutz sowie die interessierte Öffentlichkeit sind herzlich willkommen!
Informationen: www.zenario.uni-oldenburg.de



Research questions

Q1: Are the two islands really sustainable and if so, what can other islands learn?

Q2: What are preconditions for a successful development?

Q3: How can actors be involved?

Q4: What new modes of participation are required?

Q5: Is sustainability an opportunity for the changing future of islands?

In the German Wadden Sea, but where?

MAP OF GERMAN WADDEN SEA (DUE TO PUBLICATION RIGHTS DELETED; IF YOU WANT THE ORIGINAL VERSION OF THE PRESENTATION, PLEASE CONTACT ME)

1571 inhabitants (2016), 2 villages: Juist and Loog

17km long, 500 meter -1 kilometre wide

Surface area: approx. 16 km²



- Sustainability of Juist? Approaches and measures
 - Juist is on its way to become one of first carbon neutral destination in the world. "Juist Climate Island" aims to become climate-neutral in 2030
 - Complete switch to renewable energy and the conversion of buildings into micro-power stations
 - Climate-neutral print of almost all needed print products. The catalogue is printed climate-neutrally on FSC paper
 - Shipping with GOGREEN, the CO2 neutral shipping company of the POST/DHL
 - Traveling CO2 free with the environmental plus RIT ticket of the German railways to Norddeich (Harbour)
 - Installation of a Veggie day on every Thursday, to lower the high CO2 use which has been caused by the meat production
 - LED street lightening
 - Energy and climate day for citizens
 - Car-free island

Measures by municipality

- Target CO2 reduction for Juist
- Energetic property concept
- Modernization of heating systems

Individual measures Juist

- Certified energy consultation for buildings
- Energy concepts for crafts enterprises
- Energetic renovation of personnel dormitories
- Concrete CO2 energy and saving possibilities for holiday rentals

In the Dutch Wadden Sea, but where?

MAP OF DUTCH WADDEN SEA (DUE TO PUBLICATION RIGHTS DELETED; IF YOU WANT THE ORIGINAL VERSION OF THE PRESENTATION, PLEASE CONTACT ME)

3.533 inhabitants (2016), 4 villages: Nes, Hollum, Ballum, Buren
27km long, 1-2 km wide
Surface area: approx. 59km²



Ameland aims to add sustainability to its strategy to

- improve nature,
- create awareness among residents as well as tourists
- and develop a new kind of tourism.

Amelands agreements:

Sustainable Ameland

- Agreement of municipality with 3 private companies (Eneco Energy, Gas Terra and NAM (Dutch Earth oil Company)).
- Agreed to make Ameland a breeding ground for **innovative sustainable** developments.

Sustainable Wadden Isles

- Agreement with all five Wadden islands and the provinces of Fryslân and Noord Holland, to make all Wadden islands (sustainable) self-supporting (in water and energy) by the year 2020.

Energy-agreement

- Agreement between the local, provincial and central government about sustainable energy, CO2 reduction and innovative projects in the north of the Netherlands.
- Project will can help the island to achieve the objective of a sustainable Ameland in 2020.

C2C= framework seeks to create production techniques that are not just efficient but are essentially waste free.

Eternal Holiday House

- Existing holiday house was upgraded to become an “Eternal Holiday House”, a house which is energy- and water positive, i.e. produces more energy and clean water than is consumed.

Cradle to Cradle Beach Activity House

- Outdoor sports centre was build with reused sea containers. Water and energy supply & food and drinks all are produced according to the Cradle to Cradle® philosophy. People visiting the centre are actively informed about its specific character of this centre and about the Cradle to Cradle® principles.

Vrachtfiets, Cargo Carrier

- Developed by Delft University of Technology the ‘Vrachtfiets’ is an electric driven modular system and a very effective tool to facilitate services on camping sites. The ‘Vrachtfiets’ also provides luggage transport for tourists, thus making a car into a super- fluous tool.



Duurzaam Ameland (Sustainable Ameland)

- Solar park
- Electric busses
- Special street lightening (green outside the villages, less disturbance of wild life)



Action points and initiatives on Ameland and Juist

Ameland

- Sustainable Ameland (Duurzaam Ameland; since 2007)
- Cradle to cradle islands (2009 - 2012)
- D2D “Development to Dissemination” (2007 – 2013)
- Innovation Policies for Sustainable European Islands (2017-2021)
- Sustainable villages (Ondernemende Duurzame Dorpen)
- Smart Islands Initiative (2017)
- Solar Miles Project concerning sustainable mobility
- Living on Ameland (Woonvisie Ameland, 2017)

Juist

- Project KUNTIKUM – Climate trends and sustainable tourism development (2009)
- Project Climate island (since 2010) with EWE
- Tourism vision 2020 („Tourismusleitbild 2020 (2010))
- LEADER East Frisian Wadden islands and city of Norden („Wattenmeer-Achter“; 2014-2020)
- Sustainability report of the municipality „Kommunaler Nachhaltigkeitsbericht“; 2015)
- Participation BMBF-competition „Zukunftsstadt“ (2015-2017)
- Prize winners "Tourism with a Future" of the Lower Saxony Ministry of Economic Affairs, Employment and Transport (2016)

Action points and initiatives on Ameland and Juist

Ameland

- Waddencampus Ameland

Juist

- Part of the Project „Wat nu?“ (2016-2019)
- Certification as "Sustainable Destination" by TourCert (2017)
- Smart Islands Initiative
- Vision for a liveable island („Lebensraumkonzept Juist“ (2017/2018))
- Children's university about sustainability (KinderUni)

SEVERAL SCREENSHOTS OF DUTCH AND GERMAN NEWSPAPER WEBSITES (DUE TO PUBLICATION RIGHTS DELETED; IF YOU WANT THE ORIGINAL VERSION OF THE PRESENTATION, PLEASE CONTACT ME)

Preliminary results: Juist

Strengths/Success factors

- Strong personal commitment of individual actors
- Personal relations of many participants
- Strong (place) attachment of inhabitants
- Short ways and connections
- "Island situation"
- Positive reactions and awareness from outside (certifications, prices etc.)

Weaknesses/Threats

- Limited time of projects (election periods)
- Evolving of parallel structures due to variety of projects
- Municipality as (one-sided) "driver" of certain developments (esp. Mayor)
- Lack of resources
- (So far) limited regional coordination
- Lack of support among tourism service providers
- Risk of over-exploration by science and research and multiple projects
- Symptoms of tiredness of individual actors

Preliminary results: Ameland

Strengths/Success factors

- High support by locals
- Strong personal commitment of many actors
- Own energy corporation
- Strong support by municipality
- Local entrepreneurs are in favor (e.g. Products of Ameland)
- Diverse projects
- "Island situation"
- Positive reactions and awareness from outside (media, certifications, prices etc.)
- Size of population and islands
- Audio version of municipality meetings online (Transparency)

Weaknesses / Threats

- Still high amount of individual traffic (especially by tourists)
- For tourists the sustainability approaches not really visible – more marketing & communication (e.g. on the ferry) could strengthen that

Q1: Are the two islands really sustainable and if so, what can other islands learn?

- They are on a good way and have achieved a lot
- Similarities between Ameland and Juist
 - Long history of dealing with sustainability
 - Many projects and initiatives
- Still lot of potential

Q2: What are preconditions for a successful development?

- Man power and solid funding, support by the vast majority of the population, clear communication

Q3: How can actors be involved?

- Fostering new governance structures – involving state, economy and civil society actors, mutual benefit for individual or community must be clear (Example “Gästeparlament Juist” committee of tourist)

Q4: What new modes of participation are required?

- Formal and informal participation, empowerment of locals, open office or living lab

Q5: Is sustainability an opportunity for the changing future of islands?

- Sustainability (in terms of ecology, economy and society) is the only way to deal with the challenges ahead, but its also crucial to not forget the challenges of the present

Conclusion and summary



- Complex initial situation
- Protected area designations and associated certificates can function as triggers for sustainability
- Other external drivers promote "compulsion" to act: such as climate change, demographic change
- A variety of positive approaches at municipal level: Ameland and Juist are prominent examples
- Strong focus on sustainable energy
- What about the mainland?
- Next steps: further empirical research

Recommendations for the island community of Juist (based on Jansen, 2017)

Become a role model

Introduce monitoring

Evaluate project elements

Use islanders as spokespersons

Create/strengthen the sense of
togetherness

Listen to needs, requirements and wishes

Seek exchange

Take a long-term perspective

Secure human resources

Focus

Change communication



Thank you very much for your attention! Questions?



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For more information see also: www.wat-nu-im-watt.de &
www.raumentwicklung.uni-oldenburg.de/

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