

Online coastal education modules – IKZM-D Lernen - DE

1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Sound use of resources and promotion of less resource intensive processes/products
- SUSTAINABLE ECONOMIC GROWTH: Developing Europe's regional seas sustainably
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

2. Key Approaches

- Knowledge-based
- Technical

3. Experiences that can be exchanged

Online internet modules for remote distance learning and education are a possibility to educate coastal stakeholders and to raise awareness about ICZM at low costs. The acceptance of these modules increases if the information is provided free of charge and in the national language. Online modules which are linked to a traditional study course at a university or an accredited remote distance course are more attractive because certificates can be obtained.

4. Overview of the case

The internet platform "IKZM-D Lernen" is an online learning system which consists of independent online study, information and teaching modules. The modules deal with the coast and the sea in general and with ICZM in particular. Some of the modules explain the general conditions for ICZM in Germany - case studies about ICZM-initiatives in Germany show the special German state-of-the-art. The modules are free of charge and address experts, students and the interested public. The technical development started in 2002 and was largely finished in 2008.

5. Context and Objectives

a) Context

ICZM requires a profound scientific knowledge as well as a framework and tools for the management of these coastal systems. Specially educated persons are required, which promote ICZM, serve as regional moderators, and act as links between stakeholders and the population. ICZM training and education has become part of the university curriculum all over Europe. However, authorities, coastal stakeholders and existing decision-makers have not really benefitted from this development. To attract this group and to provide an advanced training, online learning systems are useful. They have to provide background knowledge of the national framework, regulations and legislation relevant for ICZM as well as to present concrete case studies. Against this background, the national German free- of-charge and open Internet platform for learning and teaching modules in the German language (IKZM - D Lernen) has been developed.

b) Objectives

The general objectives were a) to establish a platform which serves as an umbrella for existing and new online modules in Germany; b) to develop a technical infrastructure which allows authors to create new information modules; c) to evaluate the existing demand and to create additional new modules for specific coastal and marine issues and target groups d) to provide

the modules for and/or to link them to existing traditional coastal courses and e) to evaluate the success of online learning and education.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

The entire development has been coordinated by EUCC – The Coastal Union Germany in close cooperation with the Universities of Kiel and Rostock, several schools in Schleswig-Holstein and NGO's.

b) ICZM tools

Online learning and teaching portal "IKZM-D Lernen" supporting coastal management in Germany. The portal contains thematic modules on ICZM or ICZM relevant coastal aspects freely accessible in the Internet and tailor-made for the demands of the German coastal community. Most modules are in German and are used in schools, universities and distance learning courses. Examples are: Integrated Coastal Zone Management; Integrated Coastal Zone Management in the Baltic Sea Region; Case study participation Timmendorfer Strand & Scharbeutz; beach and dune management in the seaside resort Warnemünde. Other online-modules were developed by pupils and students for other pupils, students and the public to raise awareness about coastal issues, problems and the need of an integrated and sustainable management across the land-water interface.

The portal "IKZM-D Lernen" includes technical tools to develop one's own modules and allow experts to share their knowledge and experience about coastal issues as well as best practise examples with a large interested community. The modules give lecturers and teachers access to up-to-date knowledge and material, which they can use in their own lectures and courses. In this respect, the portal "IKZM-D Lernen" serves as a container and supports the transfer of knowledge from the scientific community towards the society.

7. Cost and resources

Funding of altogether about €200.000 has been provided by Bingo! The Environmental Lottery within the projects "Coastal school" and "Wer, Wie, Watt?", by the state authority for the environment (Landesamt für Umwelt, Naturschutz und Geologie Mecklenburg-Vorpommern) for the project "Coastal tourists: awareness raising on Climate Change" and the German National Ministry for Education and Research (BMBF) within the project 'Research for an Integrated Coastal Zone Management in the Oder Estuary Region' (ICZM-Oder, phase I).

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The development was demand-driven and followed a stepwise approach. The successful implementation of a first platform created new perspectives and enhanced the further-development. The objectives have been reached.

9. Success and Fail factors

Close co-operation between the technical developer, content provider and end-users allowed a fast development. The well-established coastal network in Germany and EUCC - The Coastal Union Germany provided contacts, ensured co-operation with end-users and gave access to funding.

10. Unforeseen outcomes

The modules are used in different traditional courses at universities. The technical infrastructure allows the creation of new information and education modules by various authors. At first this was meant to attract coastal experts to compile their knowledge in the form of online-modules and to make it generally accessible. However, at the moment most modules are

created by students and pupils for other pupils and to inform the public about coastal issues.

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13. Sources

- Aus der IKZM-Forschung lernen: Küstenbildung zur Odermündungsregion. Vorlauf (2007): Maack, S. & G. Schernewski. In: Schernewski, G. et al. (eds.): Coastal Development: The Oder estuary and beyond. Coastline Reports 8: 179-190.
- Evaluierung und Konzeption eines Internetauftritts im Bereich der Küsten- und Meeresbildung (2006) Klein, J. IKZM-Oder Berichte 27
- IKZM-D Lernen: Internetgestütztes Lernen zum Integrierten Küstenzonenmanagement (2005). Vorlauf, A., S. Bock & G. Schernewski In: Beck, N. (Hrsg.): Neue Ergebnisse der Meeres- und Küstenforschung. Schriften des Arbeitskreises Landes- und Volkskunde 4, ISSN 1610 8132: 153-161.
- Innovative Coastal Education against the background of ESD - Experiences from an online training project about anthropogenic impacts on the Wadden Sea (2007). Maack, M. et al. In: Schernewski, G., Glaeser, B., Scheibe, R., Sekścińska, A., Thamm, R. (eds.). Coastal development: The Oder estuary and beyond. Coastline Reports 8: 277-288
- Online-Lernmodule zum Küstenmanagement (ikzm-d Lernen) (2004). Schernewski, G. & S. Bock Coastline Reports 1, ISSN 0928-2734
- www.ikzm-lernen.de/




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Artikel18_Vorlauf_Maack_Schernewski (992.49 KB)  



Artikel27_Maack_etal (1.69 MB) 



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