

# The HOUU-Project “Tideelbe-Komplex” as Part of a Participative Methodology for Stakeholder Communication in the Elbe Estuary

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## 1. Introduction

With approximately 100 km length, the Elbe Estuary is the biggest estuary at the German North Sea coast. The Elbe River is the so called “Life Line” of the region with 4.3 million inhabitants. The city of Hamburg is the economic center of the area with Germany’s biggest seaport. The estuary is characterized by a manifold and in parts contradictory utilization and high pressures to utilize resources. Shipping and harbor, agricultural land use, industry, recreation and tourism, flora-fauna-habitats and bird sanctuaries are the most important kinds of use. Multiple conflicts of interest, some of them with a long history, affect decision making and planning. To complicate matters further, three federal German states (Hamburg, Lower Saxony, Schleswig-Holstein) with three parliaments, three different structures of administrations, three authorities for every area of responsibility have to cooperate for political decision and management in the catchment area. Quality of life in the estuary in the context of future climatic changes, increased urbanization and industrialisation asks for long term planning. For the development of management strategies public support and participation are urgently needed. The present instruments for public participation in Germany were inefficient to guide the public participation for major projects like the next Elbe deepening, where public interventions stopped the building operations. To enable decision makers and public to assess the risks and develop management strategies and measures despite complexity and uncertain scientific information, risk communication and a deep understanding of the current relationships are needed. In the EU-funded research project ARCH – Architecture and Roadmap to Manage Multiple Pressures on Lagoons and Estuaries – a participative methodology was applied with the aim to form a common understanding of the complex situation in lagoons and estuaries. The Elbe Estuary was one of ten case sides in the project from all over Europe. As a consequence of the Arch project an open educational online course about the Elbe Estuary as part of the Hamburg Open Online University (HOUU) was developed. The Hamburg Open Online University is a multi-university collaboration in Hamburg, where six state-owned universities together with the University Hospital Hamburg-Eppendorf, the Authority for Science and Research of Hamburg, the Senate Chancellery of Hamburg and the Multimedia Kontor Hamburg formed a network. The aim of the collaboration is to create a digital content area, where interested public, students and teachers and can meet to work together on interdisciplinary and interuniversity projects with academic ambitions.

## 2. Materials and methods

Inspired by the “European Awareness Scenario Workshops” [1] a workshop methodology with a series of three workshops with scientists, stakeholders and decision makers was developed in the project. As a basis for the process, an integrated scientific state report of the Elbe estuary was produced in which interdisciplinary scientific information about the natural and the human system and their relationships was collected. A very short summary of this report was given to the participants as preparation for the workshops. To ensure the participation of all relevant stakeholders a stakeholder analysis was carried out. Interviews were made before to identify current issues and to clarify to what extent scientific information and scientific experts are involved in the daily business and formation of opinion of the interview partners. The focus group interviews were evaluated by a qualitative content analysis. Objective of the series of workshops was to develop a common understanding and a common “language” about the current status in the estuary, to create a common future vision for the estuary and to formulate a realistic strategy towards an sustainable estuary management. The workshops at the Elbe case site were led by the question: “More room for the river?”. For the first workshop about the current status of the case site a system analysis using the Sensitivity Model Prof. Vester® [2] was performed. This method serves to analyse complex socio-economic-ecologic systems. Its main features are the visualisation of relationships, the mediation capacity and the involvement of so-called soft skills like conditions and feelings. A virtual model of the Elbe estuary was developed in which the complex relationships were visualised and different questions answered in “If-Then-Scenarios”. During the second workshop a common future vision for the Elbe Estuary was developed using different communication methods, such as the “Professional Conflict Consulting” by Friedrich Glasl et. al. [3], and

visualised by a Graphical Recording. During the third workshop an integrated strategy for the estuary management was developed.

The main feature of the open educational online course “Tideelbe-Komplex” is an interactive map, called “StoryMapJS”. “StoryMapJS” is a project of Knight Lab, a team of technologist and journalists working at the Northwestern University in Chicago and San Francisco [4]. The tool is free and open to anyone with a Google account. The “Tideelbe-Komplex”-Storymap is accessible without an Google account. The most prominent feature is the possibility to connect locations and information and include different kinds of media to tell a story.

### 3. Results and discussion

With the stakeholder analysis more than 100 local, regional and national stakeholder groups were identified in the three federal states. These include associations for agriculture, fishing, tourism, dike protection and the environment, economical, environmental or harbour authorities, research institutes, media and industry to name only some. Interviews were carried out with 40 persons. Even though the interview partners had a different societal background, most of them agreed on the following statements: (1) a master plan for the management of the Elbe Estuary is necessary, (2) main conflicts are about space and land use, (3) decisions are not transparent and driven by political will, not sound science and (4) public participation in the Elbe region needs improvement. Another result from the interviews was the topic “More Room for the River?” for the workshops, a topic everybody found most urgent to discuss. In the first workshop it took four days to develop the virtual model of the case side. This workshop turned out to be the most difficult and time consuming step of the process. It took a long time to develop a common language and understanding but it helped the participants to understand different opinions and the complexity of the system. In the second workshop it became apparent, that worries of the future paralysed the participants when asked to create a positive future scenario of the Elbe region. This was overcome when they were asked to first outline their respective apprehensions. After that, it was possible for all to work constructively on a common future vision for the next 50 years of the estuary. This was experienced as being highly motivating for everybody. The objective of the last workshop was to develop a strategy for an integrated management for the estuary. The strategy was developed depending on two main topics: communication and integrated management. Figure 1 shows the developed strategy.

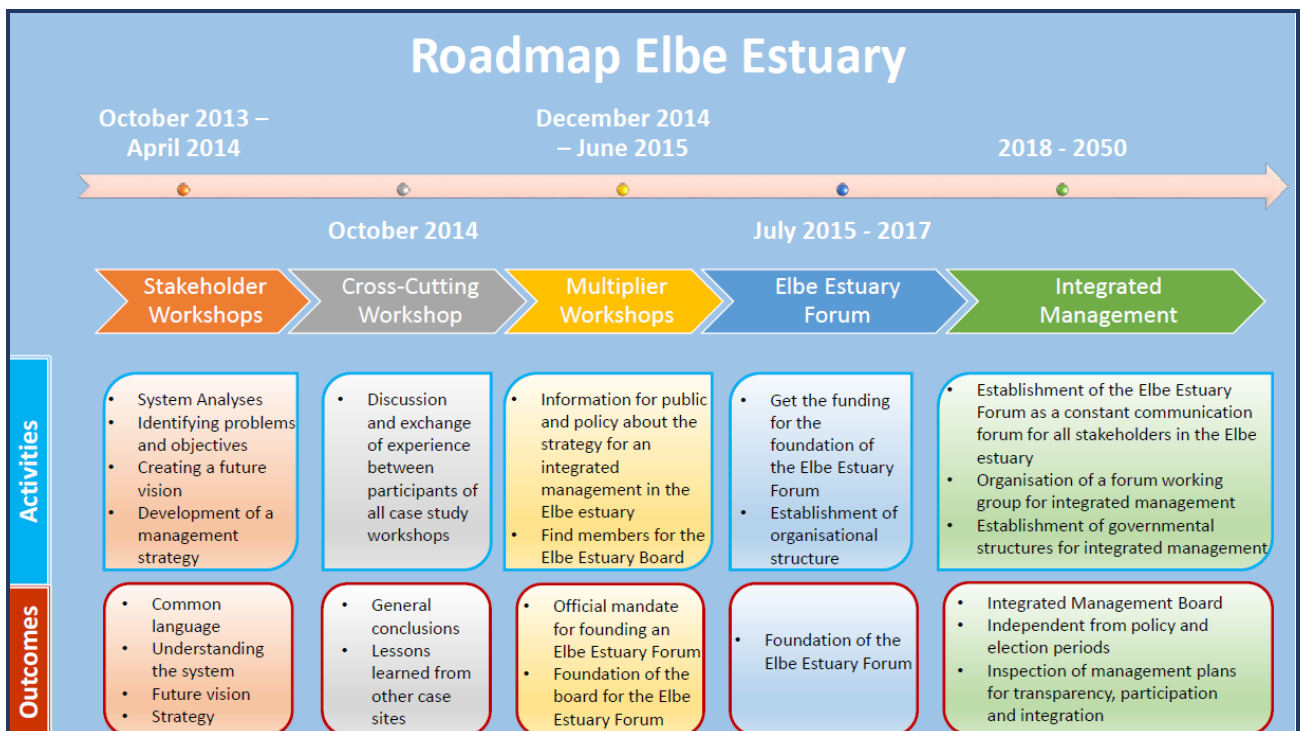


Figure 1: Strategy for an Integrated Management in the Elbe Estuary.

The communication process showed that often not a lack of information, but an overkill of unstructured information and a lack of understanding of connections and dependencies is the problem. The role of

