## Delta oost – Results

The objective of this project was to develop and apply participatory "roadmaps" towards sustainable development of urbanised fluvial areas. In close dialogue with societal stakeholders a selection was made of two intriguing cases for further research with their own specific problems and stakeholder groups:

a) the development and/or management of a number of railway stations (the "dry" domain)b) the land use and management of floodplains (the "wet" domain)

In this interdisciplinary research project we aimed at deducing some generic scientific concepts and methods that could be applicable for both the "dry" and "wet" domain. The main focal points of research was to develop innovative governance and finance mechanisms supporting sustainable development of urbanised fluvial areas.

## Scientific impact of the project

In the so-called 'wet' domain (fluvial area), a study has been performed on the possibilities for collaborations of landowners. This study resulted in a peer reviewed publication and a governance oriented pilot project to be coordinated in the near future by the Province of Gelderland and Rijkswaterstaat East Netherlands. In the 'dry' domain (City- region Arnhem-Nijmegen), four experiments were conducted. Three experiments were related to innovative management strategies related to railway stations near Arnhem and Doetinchem, ("Liemers Corridor") and "Nijmegen Central Station".

With respect to technological innovations we refer here to the development of a "dash board" an interactive GIDS tool, which enhanced transparency in plan and decision making with respect to floodplain management (see https://waalweelde.geocat.net). In the 'dry' domain modelling and gaming theory were used to analyse the decision- making processes.

The research in URD Delta East focuses on the following topics, which has resulted in various publications. The insights from both the wet and the dry areas are brought together and integrated into the following scientific innovations:

- 1. Framework for Sustainable Development
- 2. Governance and decision making
- 3. New financing structures
- 4. Examination of governance and finance models

We also worked in a multidisciplinary research team on GIDS systems. Especially in modelling and analysis of decision-making processes through serious gaming and monitoring spatial developments.

## Social impact of the project

During a major regional conference on March 31st 2014 in Arnhem, the results and potentials of the link between science and practice we established, was shown to a wide audience. The importance meaning to the parties in practice is shown in two large initiatives that will follow the URD Delta East initiatives:

- 1. "Waalschap" pilot: As a follow up to URD Delta East, a broad project team is set up by the province of Gelderland, Rijkswaterstaat East Netherlands and Waterboard Rivierenland to explore the applicability of the new governance model for floodplain management as developed in URD.
- 2. Urban reallocation: a comprehensive Pilot Programme Urvan Reallocation is started for the marketing of area development and urban reallocation for the next 2.5 years. It will be founded by the province of Gelderland, the Region Arnhem Nijmegen and some

municipalities, and supported with a financial contribution from the Incentive Fund for Creative Industries and the Ministry of Infrastructure and the Environment.

## **Knowledge dissemination**

The study has produced a number of scientific publications in internationally recognized journals, particularly with regard to the international comparison of financial instruments for regional development and the results of game theory, 'formal games' for negotiation processes in area and monitoring systems (see Annex 1). Also, interim results were presented at several international scientific conferences.

Meanwhile more popular articles are published in S+RO Magazine (June 2013) and in the special issue about URD has been issued in Rooilijn (June 2014). Furthermore, an article is written on the theme "Life after the crisis" in S+RO (August 2014). In collaboration of the 'wet; and the 'dry' area and aimed at the integration of the results and lessons learned from both domains, a large regional conference was organized by URD Delta East on March 31st, 2014 in close collaboration with the Province of Gelderland and the Region Arnhem Nijmegen. The province of Gelderland been represented by the vice-governors Josan Meijers (Water, RO, Waalweelde) and Jan Markink (Area Development, Finance). The Region Arnhem Nijmegen was represented by Chairman Wim Dijkstra; Rijkswaterstaat East Netherlands by executive director mrs. Joke Cuperus.

With URD Delta East as a basis, we have made progress with the knowledge dissemination to a wider networks of scientists and practice parties in other regions in the Netherlands and abroad. For both the wet and the dry domain follow up initiatives will be taken, e.g. in Interreg V proposals.

More information: drs. Edwin van Uum, Bureau Het Noordzuiden B.V. E-mail: <u>edwin@noordzuiden.nl</u> Tel.: 06 - 125 08 762

Project leader: prof. dr. Toine Smits, Radboud Universiteit Nijmegen E-mail: <u>a.smits@science.ru.nl</u>