

# Impact of Climate Change on the Quality of Urban and Coastal Waters - Diffuse Pollution -

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## Interreg IVB project DiPol – A success story over the past 3 years!

In March 2009 a total of 19 project partners from 5 countries bordering the North Sea met for the DiPol Kick-off meeting in Hamburg. Each partner brought a bunch of ideas and expectations along, though being well aware that the major challenge during the next three years to come would be the successful implementation of a transnational and transregional cooperation. In order to investigate the "Impact of Climate Change on the quality of urban and coastal waters", the consortium intended to collect data under regular and extreme weather situations at four case studies in Norway, Sweden, Denmark and Germany.

Looking back on the activities of the past 3 years, it can be undoubtedly stated that DiPol has been a success story:

Tools to access and model the impact of climate change on the coastal zone due to loads of rivers with toxic contaminants and mixtures have been applied; data have been made available in a visualised format through the Web-based Knowledge Platform, and under active participation of local and regional stakeholders the communication and simulation tool SIMACLIM has been developed. Finally, the DiPol documentary – a video filmlet produced in a joint approach of students from Norway and Germany – has been developed. Just one, but one of the most remarkable result of the successful implementation of a transnational and transregional cooperation.

Enjoy reading the concluding DiPol Newsletter!

### DiPol's Final Conference in Hamburg – a short review

The Final Conference of the Interreg-IVB project DiPol took place September 15<sup>th</sup> 2011 in Hamburg, Germany.

During the conference, major project deliverables were presented and discussed among the 70 participants. By means of informative short presentations, activities and results from the different case studies have been highlighted. It became obvious, that DiPol contributed significantly towards an increased understanding of the climate change related processes to occur in surface waters. Successful transnational cooperation within the consortium



Project coordinator Prof. Wolfgang Calmano (TUHH) welcomed the participants & opened the conference.

has been demonstrated with the toxicity profiling approach: Here, samples from different countries been collected, have analysed and results evaluated, leading indications valuable regarding the relationships between climate change and water contamination.

A number of stakeholders were present and provided

feedback on the presented tools and models, thus contributed towards a final enhancement until the project's completion in June 2012.

the afternoon, representatives from national other and Interreg projects presented their approaches towards adaptation measures to climate change. It astonishing was see, how severe the impacts of climate



Poster exhibition at the foyer of the conference site (TuTech Innovation GmbH)

change may be in future; but at the same time the presented project results raised hope that reasonable countermeasures might be taken in due time. In this connection, also the DiPol documentary has to be mentioned. This short video, produced by students from Norway and Germany, clearly demonstrates that the next generation is aware of the changes and ready to cooperate across borders and regions.



Discussions during the reception at the Hamburg Town Hall.

The conference was concluded in the evening, when the consortium members and conference participants were welcomed by the Senate of Hamburg during a reception at the Town Hall.





### Sixth consortium meeting in Hamburg, Germany

During September 14<sup>th</sup> and 16<sup>th</sup> 2011, the DiPol consortium gathered for its 6<sup>th</sup> regular General Assembly in Hamburg, Germany. The meeting intended to wrap up the activities of the past six months, prepare for the September 2011 reporting round and to make final arrangements for the final conference on September 15<sup>th</sup>, 2011.

During the meeting it became apparent, that very comprehensive and valuable data have been generated from



Members of the DiPol consortium during the 6<sup>th</sup> General assembly.

the case studies. The integration of these information into the simulation and demonstration tools is, and will be, the major challenge of the remaining project runtime until its completion in summer 2012.



Inside the plant for Mechanical treatment of Harbour Sediments - METHA

Beside the organisational and scientific work, the consortium took advantage of the meeting location to acquainted with get Hamburg's technical solution harbour for sediments treatment at the **METHA** plant Finkenwerder. Since 1993

the plant separates and dewaters polluted dredged material from the river Elbe and the harbour basins. The plant produces a clean sand fraction for recovery and a polluted fine fraction for disposal on land. Positively influenced by decreasing pollutant loads over the past two decades (in consequence of the shut down of many industrial plants along the Elbe), it remains to be seen how climate change will impact on future sediment quality.

#### **SIMACLIM**

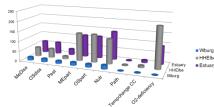
Through a series of workshops with regional stakeholders, specific problems of social relevance in an ecological context have been defined for the project's case studies. These outcomes of the workshops serve as assessment endpoints when setting up a Regional Risk Ranking Model for the case study regions. The aim is to identify relative risks in a risk region and to compare risks between different regions. Due to the fact that the number of possible risk combinations for each region would easily exceed 10,000 it is necessary to use programmed software: The SIMACLIM-4R-Model.

The objectives of the SIMACLIM-4R-Model are on the one hand the identification of data gaps whereas the main focus is on the visualisation of impacts caused by climate change. Furthermore, the approach includes the communication of the results (i.e. relative risks) back to the stakeholders. In this way, stakeholders are enabled to decide on potential

potential further actions (if necessary).

During the September 2011 reporting period the final version of the visual basic based program for the application of the SIMACLIM-4RM-Model on Microsoft office-versions 2003, 2007 and 2010 has been developed and tested for compatibility by the project partners. A new section "SIMACLIM" has been established on the DiPol website (www.interreg-dipol.de) including possibilities for program download, detailed instructions as well as general remarks regarding the SIMACLIM approach.





DiPol's SIMACLIM: Relevant variables (left) and risks from stressors (ri.).

#### Last but not least ...

Looking back on the past three years of scientific work both, in the field and lab, numerous meetings, workshops and conferences, transnational staff exchanges and collaboration, we probably have to ask ourselves: What is going to withstand after the project will be completed in June 2012?

First of all, the project definitely contributed towards a better understanding of climate change related impacts on water quality. The major deliverables, such as SIMACLIM or the Web-based Knowledge Platform will serve as useful tools for the transfer of project results to decision makers and the public. The background and the story of the project is told with the DiPol documentary – which will help to attain not only the attention of the young generation.

And finally, we made friends with each other. This is by far not trivial; in particular not, if a project consortium consists of 19 partners from five different countries. But is proves that the spirit of Interreg (i.e. the transnational approach) has been successful. In this spirit DiPol will live on and probably someday a follow up activity will be announced.

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