

## Editorial

### Proposal for a directive of the European Parliament and Council concerning flood assessment and prevention

On 27 June 2006 the Environmental Advisory Board of the EU unanimously reached political agreement on *the proposal for a Directive of the European Parliament and Council concerning flood assessment and prevention* as one of the final official acts of the Austrian presidency.

By way of political consent a basis was established for risk-oriented flood assessment and prevention on the European level. The directive is intended to apply to all river and coastal areas in Europe. At the same time a suitable transitional regulation will ensure that preparatory work already undertaken on a national level aimed at fulfilling the directive may also be included.

Flood risk is defined as a combination of the probability of occurrence of a flood event and the flood-related potential negative effects on human health, the environment and economic activities. During the past six months the directive has been intensively discussed within and with the member states. It was thereby possible to reach agreement on modifications which not only clarified certain issues but also led to a reduction in the workload resulting from the directive.

The directive is conceived in such a way that it is closely coupled to the Water Framework Directive (WFD) in terms of both organization and content. For example, the river basin units of the WFD must also be assessed with regard to flooding according to the existing draft. In the case of coastal regions it was possible to define individual coastal zones based on the degree of flooding resulting from storm surges.

The essential working steps demanded in the proposals are:

- Provisional assessment of flood risk (by December 22, 2012)
- Flood hazard maps and flood risk maps (by December 22, 2013)

- Strategic plans for flood risk management (by December 22, 2015)

The **preliminary assessment of flood risk** permits an estimation to be made of potential risks based on available or easily derivable information. The significant negative effects on humans, industry and the environment resulting from past flood events with a known probability of reoccurrence in a similar form should thereby be represented in suitable maps for all flood-endangered regions. This should also include the extent of flooding as well as an assessment of the negative effects of these flood events.

The **flood hazard maps** only cover those regions which might possibly be flooded as a result of the following scenarios:

- Floods with a low probability of occurrence or scenarios for extreme events
- Floods with an average probability of occurrence (return period: 100 years);
- Depending on the circumstances, floods with a high probability of occurrence.

The extent of flooding and the maximum attained water level should also be documented in each case.

The flood risk maps indicate potential flood-related negative effects resulting from the above-mentioned scenarios. Among other factors, the following information should be documented:

- number of potentially affected inhabitants
- industrial activities as well as
- potentially endangered conservation areas

For coastal regions already sufficiently protected, member states are free to restrict the preparation of flood hazard maps to coastal regions threatened by extreme events.

On the basis of the flood hazard maps and flood risk maps the member states are expected to draw up **plans for flood risk management** outlining flood prevention, flood protection and precautionary measures. This requires the definition of appropriate objectives and measures for flood risk management, which should concentrate on reducing the negative effects on

### Imprint

KFKI-Head Office  
German Coastal Engineering Research Council  
Wedeler Landstraße 157  
22559 Hamburg  
Phone: +49 40 81908-312  
Fax: +49 40 81908-578  
Email: kfk-sekretariat@baw.de

KFKI-Scientific Library  
Wedeler Landstraße 157  
22559 Hamburg  
Phone: +49 40 81908-378  
Fax: +49 40 81908-578  
Email: kfk-bibliothek@baw.de

Homepage: <http://kfk.baw.de>

English translation by Dr. Ian Westwood, Burgwedel

human health, the environment and the economy, and where applicable, should also focus on non-structural initiatives (disaster control) and/or a minimization of flood probability. Additional aspects such as e.g. costs/benefits, land utilization, water management, regional planning, land use designation, nature conservation, shipping and harbour infrastructure should also be taken into consideration.

The *North Sea Coastal Managers Group*, in which the senior coastal protection authorities for the North Sea region are represented, is responsible for the exchange of experience and information, research, and sound engineering practice in coastal protection management. During their annual meeting from June 13 to 16, 2006 they discussed the draft of the directive and accepted the proposal. As considerable differences exist in causal relationships and management options between coastal and inland flood protection, the *North Sea Coastal Managers Group* emphasizes the need to take due consideration of coastal protection management (coastal protection) in order to meet its special requirements and necessities.

As the directive has not yet come into force, we recommend our readers to first download the most recent version issued by the European Council from the Internet and acquaint themselves with the content. Before commencing with work, national agreement on a common course of action should first be reached, especially in the field of coastal protection.

**Bernd Probst**

**Ministry of Agriculture, the Environment and Rural Areas of the state of Schleswig-Holstein**

**KFKI Chairman (2006-2007)**

## Integrated Coastal Zone Management (ICZM)

Eiko Lübbe

German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV)

National report relating to coastal protection/coastal research

The German cabinet ratified a national ICZM report on March 22, 2006, thereby accepting a recommendation by the European Parliament and Council of May 5, 2002 to report back to the EU commission within the framework of the ICZM. The report was prepared in collaboration with representatives of participating federal and state departments, environmental and nature conservation associations as well as industry, and was presented by the presiding Federal Ministry of the Environment at a meeting on April 29, 2006 in Bremen.

This report may also be found in the Internet under [www.ikzm-strategie.de](http://www.ikzm-strategie.de).

Reporting back by the participating member states has proved to be very sluggish and the reports differ considerably in terms of content and the themes dealt with. The Netherlands and Denmark, for example, submitted reports of less than 20 pages which were limited to very general statements and topics.

Because the ICZM does not represent an independent formal planning instrument, it is therefore unable to replace political and administrative guidelines or bodies of competence and responsibility. The ICZM serves rather as a mission for political and social involvement on all levels (primarily local and regional), and should be interpreted as a continuous process for evaluating changes, planning strategies and the implementation of measures for the sustainable utilization of affected coastal regions. In summarizing, this basically concerns local to regional integral spatial planning along the coastline and the coastal hinterland.

Three fields identified in the inventory of the ICZM report are of special importance for coastal protection/coastal research:

### 1. Sand and gravel extraction

Commercially interesting sand and gravel deposits, which are also used for beach replenishment, are found in the shallower areas of the North Sea in depths ranging from 6 to 20 m. Although ICZM does not object to this type of utilization in the future, it is pointed out that the ecological effects of dredging should be minimized in order to avoid conflicts with nature conservation, and that potential changes in coastal morphology may be detrimental to coastal protection.

### 2. Sediment Management

It is claimed that the re-deposition of dredged material is necessary for sustaining maritime shipping, as this is of considerable economic importance. In this connection, reference is made to the Technical Committee on Dredged Material of the Port Engineering Society (HTG) ([www.htg-baggergut.de](http://www.htg-baggergut.de)) and the European Sediment Network ([www.sednet.org](http://www.sednet.org)). With regard to the handling of dredged material, possible conflicts may arise in the areas of nature conservation, water pollution control, tourism and the fishing industry.

### 3. Coastal protection

It is recognized that the existing level of protection provided by the coastal protection structures on the coastlines of the North Sea and Baltic Sea is an important precondition for safeguarding economic and social interests. It is also recognized that it has been possible to significantly reduce conflict potentials in recent years, especially with regard to nature conservation. At the same time, the extent of ecological damage essentially depends on future coastal protection strategies, which in turn will be influenced by the foreseeable global climate change, the rise in sea level and extreme storm surge events. Moreover, a broader understanding of coastal dynamic processes, the functional reliability of coastal protection structures as well as vulnerability analysis may well place new

demands on coastal protection.

Within the framework of INTERREG IIIB projects, e.g. COMCOAST ([www.comcoast.org](http://www.comcoast.org)) and SAFECOAST ([www.safecoast.org](http://www.safecoast.org)), Germany is very much involved in the further development of coastal protection strategies.

With regard to sea level rise and its effects on the coastal zone, the reader is referred to the BMBF project KRIM ([www.krim.uni-bremen.de](http://www.krim.uni-bremen.de)), and regarding the effects of sea level rise on the wadden sea, the reader is referred to the Coastal Protection and Sea Level Rise (CPSL) working group of the Trilateral Wadden Sea Cooperation ([www.waddensea-secretariat.org](http://www.waddensea-secretariat.org)).

Wide-cast ICZM concepts are also funded in a further BMBF sponsorship programme ([www.ikzm-oder.de](http://www.ikzm-oder.de) and [www.coastal-futures.org](http://www.coastal-futures.org)).

On the basis of the inventory, strengths and weaknesses are indicated regarding the sustainable development of the coastal zone. The latter also offers a starting point for future research. Among other things, it is found that there are significant shortcomings in the transfer of knowledge and experience due to poor availability of scientific data. NOKIS thus represents a valuable tool in this respect.

Additional measures necessary within the framework of ICZM relating directly to coastal research are few in number and may be summarized as follows:

- Development of sustainable land management strategies (also multiple utilization)
- Development and application of methodical approaches for "vision building"
- Development and application of IKZM indicators.

## KFKI Morphodynamics workshop

### Motives objectives results

**Frank Thorenz**

**KFKI Head of Research**

The research strategy outlined in 2001 for the German Coastal Engineering Research Council provides a framework for the tasks, objectives and topics of KFKI research. A key aspect in this respect concerns problems relating to morphodynamics, which are directly addressed in the research programme covering *large and small-scale transport and shape evolution processes, dimensioning criteria and structural design* as well as *the modelling of natural processes*. A range of KFKI research projects have been undertaken in recent years which have contributed significantly to a widening of our knowledge in this field. Moreover, the technical possibilities in the mathematical modelling of morphodynamic processes have improved considerably. Also due to the potential new areas of application of mathematical models associated with the latter, the KFKI has received numerous project proposals dealing

with many diverse themes.

In view of this, the KFKI took steps to further concretize its research strategy in this field in order to structure and place special emphasis on morphodynamics research, especially with regard to mathematical modelling. The aim of the KFKI, i.e. to improve the accomplishment of tasks by the KFKI departments by way of applied research as well as to achieve maximum user orientation, formed an important cornerstone in this respect.

With this objective in mind, the KFKI felt it was important as a basis for future strategic planning to organize a workshop involving the following groups in order to jointly discuss research needs:

- Research institutes involved in the development and application of models in coastal engineering research
- Potential users of model results in waterways and navigation administrations, port administrations and coastal protection administrations as well as
- Institutes responsible for generating the data relevant to morphodynamic modelling

This workshop, which was greeted with great interest, was held in Büsum on September 21 and 22, 2005 with a limited number of participants of about 45. On the first day of the workshop, research needs from the viewpoint of users and modellers were presented to the audience in the form of presentations in order to create a wide basis for discussion among the participants.

On the second day of the workshop, working groups supervised by a moderator discussed research needs in the thematic fields of data, model quality, understanding of processes and modelling techniques. The results of the group work were finally presented and discussed in the plenum.

Referred to the above-mentioned thematic fields, the following major aspects may be summarized as



Group work during the workshop



follows:

#### A. Data inventories and availability

- A need for sedimentological and biological data as well as data on suspended materials
- Topography/bathymetry: A need to improve data consistency, and as far as possible, the realization of synoptic recordings and documentation
- Data specification and communication between data generators and modellers must be intensified
- Surveying of reference investigation areas exhibiting typical characteristics for the purpose of model calibration and validation

#### B. Model quality

- Information on model performance capability, application possibilities, and forecasting capability
- A need for validation and calibration documents to prove model quality, e.g. on the basis of reference investigation areas
- The need to distinguish between short-term and long-term modelling

#### C. Understanding of processes and process modelling

- Consideration of large-scale and small-scale processes (German Bight, coastal zone, foreshores and beaches with a surf zone, tidal flats, estuaries)
- Implementation of long-term forecasts in practice
- The importance of biological processes
- Properties and behaviour of fluid mud
- An understanding of processes in the bottom-water transition zone and near-bed transport
- Fractionated transport
- Importance of hydrodynamics (e.g. partial tides, wind-wave-flow interactions)

#### D. Modelling perspectives

- Importance of empirical models in conjunction with numerical models
- *Community models*, with open-source codes as a primary objective
- Definition and specification of interface standards, coupling of modules
- The need for faster, robust models for routine implementation
- Coupling of models with different time scales

Considered in overall terms, it was evident that the range of topics discussed was very diverse and that it was possible to impressively document research needs on a wide technical basis ranging from the coordination of routine task accomplishments via original KFKI research to fundamental research. The entire workshop was thereby marked by a very open, constructive and collegial atmosphere for discussion. The results of the workshop were very much greeted and intensively discussed by the KFKI. Considerable importance is attached to the targeted acquisition of data as well as

the information describing these data. In this connection the KFKI AG Synopsis serves as a basis for coordinating the requirements placed on hydrographic surveying between federal and state authorities. With the aid of planning tools within the scope of the KFKI research project NOKIS++ (North Sea and Baltic Sea Coastal Information System), which provide a comprehensive overview of survey campaigns, it is intended to further optimize the work carried out by the authorities.

The importance and opportunities attached to the implementation of NOKIS as an information system are impressively confirmed by the workshop, as the need for information on relevant data was a major topic of discussion. It has already been possible to win over a large number of institutes and projects in other European countries which implement NOKIS owing to the considerable and long-term advantages that the system offers to users. For this reason, researchers involved in KFKI projects are obliged to document their research findings via NOKIS in order to guarantee the long-term utilization potential offered by the system. In order to provide the users of model results with additional information on the application possibilities and limitations of mathematical models it is also intended in future KFKI research projects to place greater emphasis on a documentation of model calibration and validation.

In view of the multifarious aspects dealt with during the workshop, including aspects relating to fundamental research, the KFKI proposes to inform the German Research Foundation (DFG) of the pertinent results in



Workshop participants

order to encourage future research arising directly from the applications level.

Within the framework of research projects the KFKI very much welcomes the implementation of program systems which use standardized interfaces such as the OpenMI interface (European Open Modelling Interface and Environment from the EU project HarmonIT) in order to promote the transfer and further application of data.

Considered in overall terms, the KFKI is of the opinion that major work is still necessary to improve our

knowledge of processes and systems and further develop forecasts on different time scales. It is thereby considered appropriate to orientate future investigations mainly to reference investigation areas capable of providing an insight into governing physical processes.

A further structuring of this approach will follow in the second half-year within the framework of the KFKI. By detailing the contents of the research programme, it is hoped to provide potential researchers a guideline for research funding applications in the field of morphodynamics.

The author would finally like to thank the workshop participants for their commitment and readiness to

## Sediment classification

Dr. Hans-Christan Reimers<sup>1</sup>

Dr.-Ing. Frank Sellerhoff<sup>2</sup>

<sup>1</sup>Schleswig-Holstein State Agency for Nature Conservation and the Environment;

<sup>2</sup>smile Consult GmbH

### Background

New task areas in the ecological monitoring and assessment of coastal waters have arisen as a result of the EU Water Framework Directive.

In the future it will be necessary to investigate other parameters apart from biological and physical-chemical quality components. Besides the measurement of flow, waves and bathymetry, a description of seabed sediments is also a key aspect of so-called hydromorphological monitoring. The hydrology and morphology of the North Sea and the Baltic Sea have been traditionally investigated by coastal protection agencies as well as the pertinent state and federal departments. The distribution and composition of sediments on the other hand, have only been investigated so far within the framework of research projects rather than in routine monitoring surveys. Besides conventional sampling methods from research vessels, by divers or directly on the tidal flats, hydroacoustic techniques have been available for a number of years for this task. These techniques rely on echo-sounding technology, which, with the implementation of special evaluation software, is able to provide additional information on seabed sediments, their composition, layer thickness and fauna colonization characteristics. One of these methods is referred to as hydroacoustic seabed classification, which makes use of the fact that a defined substrate comprised of particular sediments and possibly also colonized by mussels or macrophytes back-scatters a transmitted acoustic signal in a characteristic manner (Fig. 1).

The implementation of this type of system on the laboratory research vessel MS *Haithabu* of the State Agency for Nature Conservation and the Environment in Schleswig-Holstein (LANU) marks the first application of hydroacoustic seabed classification in Germany for routine monitoring.

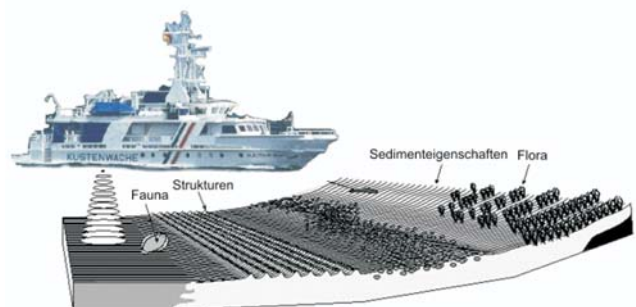
### Measuring system

The seabed classification system Echoplus supplied by the company Seatronics Ltd. has been implemented on the MS *Haithabu* since 2004. This system registers the back-scattered signals from the seabed between the transducer and the echo-sounding electronics and computes the parameters roughness and hardness from the received first and second echoes. In the case of this measuring system the signals with frequencies of 30 kHz and 200 kHz implemented by the survey sounder LiuGraph XL supplied by the company Dr. Fahrentholz are evaluated and continuously stored together with the remaining echo-sounding data. Because the actual measurements are virtually automatic and almost independent of the movement of the survey vessel, the system is operable under almost all conditions and is thus capable of surveying large seabed areas in routine monitoring work.

### The software tool

In order to evaluate the measurement system described in the foregoing section, a software tool referred to as JEDI (Java Sediment Classification Tool) was developed within the framework of the KFKI research project NOKIS++ (03F0412B). As is evident from the name of the software, this application permits a classification of the seabed on the basis of the physical parameters roughness and hardness.

This application requires a series of seabed files as input, and following successful classification, generates a map showing the spatial distribution of sediments and the epibenthos. This map may serve as a GIS dataset for the complementation of an existing map of the seabed. The classification procedure is described in detail in the following.



Schematic representation of the recording possibilities of seabed classification systems

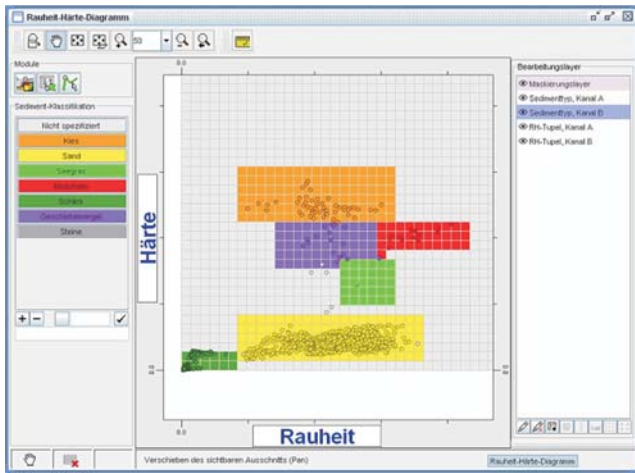


Fig. 2: Classification using the R-H diagram

### Classification

A seabed file, which generally represents one survey, consists of a large number of measurements. Each measurement is comprised of the components time mark, geographical coordinates, roughness and hardness, as well as water depth, each recorded on the two channels A and B with frequencies of 30 kHz and 200 kHz. Following successful import, the measurements are represented in a table for channels A and B separately. The individual measurements are classified by the allocation of a sediment and colonization type according to the parameters roughness and hardness. In JEDI the user is provided with a roughness-hardness diagram. In the RH-diagram it is possible to assign zones with a particular combination of roughness and hardness to a predefined sediment type. By means of the integrated zoom and pan functionalities it is possible to realize high-resolution allocations. It is also possible to store and re-import an allocation in order to transfer these to other datasets.

### Classification control

The data realizations profile plot and track plot offer a means of controlling the assigned sediment types. In the profile plot it is possible to represent the measurements as well as the assigned sediment type along the surveyed depth profile.

The track plot permits the representation of arbitrary parameters in plan view. By adding geo-referenced background images as well as shape files, the track plot may be matched to the particular needs of the user. For this purpose the geographical coordinates can be transformed into a variety of commonly-used coordinate systems.

Among the other special features offered by the application, it is possible to interactively select and pinpoint each measurement in all data representations. By this means, it is possible to monitor and process the classification.

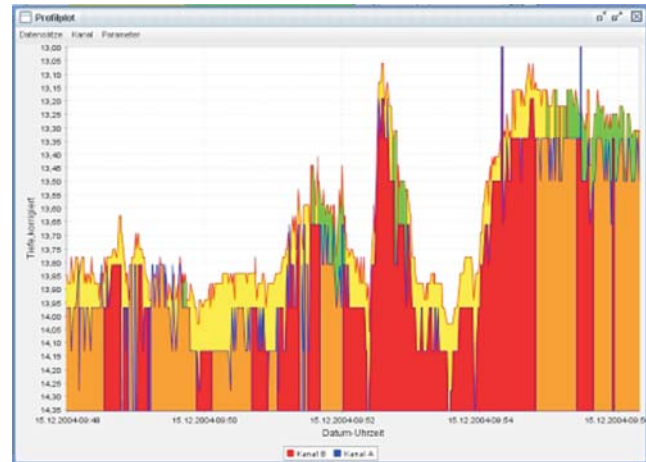


Fig. 3: Classification represented as a profile plot

### Creation of metadata

When exporting a classified dataset, metadata can be automatically generated in the NOKIS format. Recurring data may hereby be defined in a template. Context-specific information is automatically extracted from the processed dataset. Because the metadata may be stored in the form of an XML file, they may thus be imported e.g. into the NOKIS environment.

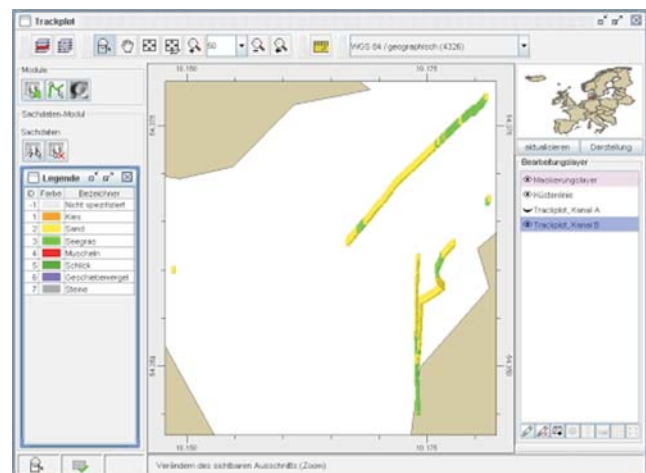


Fig. 4: Classification represented as a track plot



## ICCE 2008

Dr.-Ing. Holger Schüttrumpf

Federal Waterways Engineering and Research Institute (BAW-Hamburg)

Organisational status

The Port Engineering Society (HTG) ([www.htg-online.de](http://www.htg-online.de)) and the German Coastal Engineering Research Council (KFKI) ([kfki.baw.de](http://kfki.baw.de)) together with other national institutions and institutes have pledged their commitment to organize the 31<sup>st</sup> *International Conference on Coastal Engineering* (ICCE) from August 31, 2008 to September 5, 2008 in the Hamburg Congress Centre (CCH).

Plans for the ICCE 2008 have now become more concrete and it has been possible in the meantime to successfully meet a number of important milestones.

The Local Organizing Committee (LOC) will be supported by the company Interplan Congress, Meeting and Event Management AG from Hamburg ([www.interplan.de](http://www.interplan.de)) in the organization, planning and staging of the ICCE. Among other things, the company Interplan will be responsible for dealing with registrations and hotel bookings, the organizational management of the congress including technical equipment, the organization and management of the congress exhibition and the accompanying programme as well as accounting.

Moreover, the CCH Hamburg Congress Centre has already been booked for the conference ([www.cch.de](http://www.cch.de)). The CCH is the ideal venue for a conference of this size in view of the diverse facilities offered, such as large lecture halls, exhibition areas, accompanying gastronomy services, direct connections between the CCH and the inter-regional transport network, extremely attractive hotel offers in different price categories in the immediate vicinity as well as the short distance from Hamburg's city centre with its shops, cultural highlights and sightseeing attractions. Members of the LOC of the ICCE 2008 will participate in the ICCE 2006 in San Diego in September this year. The LOC of the ICCE 2008 will be represented with their own conference stand in San Diego in order to campaign for the ICCE 2008, establish contacts and attract potential exhibitors. The chairman of the ICCE 2008, Herr Dr.-Ing. H.P. Dücker will then announce an invitation to the ICCE 2008 during the dinner at the close of the conference.

With the staging of the ICCE 2008 the LOC hopes to advertise for German construction companies and engineering consultants, present a wide range of findings from fundamental and applied research by way of numerous German conference contributions, reinforce the national importance of research and development in the field of coastal engineering and give an incentive boost to young coastal engineers including, of course, a large number of participants

from Germany. The LOC is thus intent on attracting all professionals and bodies of competence with an interest in coastal engineering in Germany in order to guarantee a successful and sustainable conference in the year 2008. In order to achieve this goal the LOC is counting on a wide range of support from members of the coastal engineering community in Germany.

First call for papers

All interested colleagues are requested to take part in the call for papers procedure and submit a short summary of a proposed conference contribution in English dealing with one of the key topics of the ICCE 2008. These concern processes and structures in the coastal zone and in estuaries, harbours and canals, risks in the coastal region as well as the development of the coastal zone. The deadline for submitting short summaries in digital form in PDF format is July 15, 2007. In this connection, the title of the short summary, the conference topic and information on the author/authors should be sent to the Internet homepage:

[chl.erdc.usace.army.mil/chlconf/](http://chl.erdc.usace.army.mil/chlconf/)

Once these data have been submitted, a number will be automatically assigned to each short summary. The abstract itself should then be sent with this number to the email address:

[icce@erdc.usace.army.mil](mailto:icce@erdc.usace.army.mil)

The abstract should not exceed 2 pages in length and a file size of 1 MB. Further information on submitting abstracts may be found in Bulletin No. 1, which is available for download on the conference Internet homepage ([icce2008.hamburg.baw.de](http://icce2008.hamburg.baw.de)). Via the conference homepage it is also possible to be included in a mailing list in order to receive additional information on the conference.



The CCH in Hamburg with the Alster in the background

## Internal news/Die Küste

### Die Küste Contents of Volume 71

- SCHÜTTRUMPF, OUMERACI: Wellenüberlaufströmung an Seedeichen
- GROSSMANN, WOTH, VON STORCH: Localization of global climate change: Storm surge scenarios for Hamburg in 2030 and 2085
- MIEHLKE: Nachruf Stigge
- GURWELL: Nachruf Weiss
- WITTING, NIEMEYER: Mathematischen Modellierung von Wellenüberlauf an Deichen
- SCHLEIDER: Geographische Namen in den deutschen Küstengewässern
- KOHLHASE: Überlegungen zur Anlage von Sportboothäfen an sandigen Brandungsküsten
- VOLLMERS: Estuary Study Group
- JENSEN, MÜLLER-NAVARRA, RENNER, MUDERSBACH, BORK, KOZIAR: Modellgestützte Untersuchungen zu Sturmfluten mit sehr geringen Eintrittswahrscheinlichkeiten an der Deutschen Nordseeküste
- AHRENDT: Ein Beitrag zur holozänen Entwicklung Nordfrieslands
- SCHIMMELS, SANTEL, ZIELKE, HEIPKE: WAVESCAN - Automatisierte Erfassung und Modellierung von Brandungszonen auf Basis digitaler Bildsequenzen
- SELLERHOFF: Aktuelle Ansätze zur digitalen Geländemodellierung
- DIETRICH, RICHTER: Höhenänderungen im Küstenbereich der Ostsee
- WEISS: Vorschlag zum Bau eines Wellenbrechers an der Niehagener Küste
- WITTING: Reisebericht Konferenz Coastlines, Structures and Breakwaters 2005

## NOKIS Workshop from 1- 2 March

Carsten Heidmann

**Federal Waterways Engineering and Research Institute Hamburg**

On March 1 and 2, 2006 the first public workshop on the NOKIS++ project (03KIS049/03F0412B) was held on the premises of the German Federal Agency of Plant Varieties in Hanover. The workshop was attended by about 70 participants from administrations, universities and research institutes as well as from industry. Half of the programme consisted of lectures dealing with the NOKIS project and the other half was comprised of presentations from other participants. The workshop dealt with a large number of themes ranging from the basics of metadata and spatial data infrastructures to European questions arising from the Water Framework Directive and the proposed ICZM directive. By staging the workshop over two days with sufficient time for plenum discussions as well as discussions between individuals during the breaks, it was possible to assimilate new ideas concerning the further development of the project and also pass on useful tips to assist participants in their own work. A concrete result was the founding of an interest group comprised of participants from the Federal Waterways and Navigation Administration (WSV) and research institutes ready to work on the development of a common information transfer standard relating to research projects. The agreed strategy forms the basis for an extension of the NOKIS work environment for the management of project information.

Among other things, it became clear in the closing discussion that the NOKIS and NOKIS ++ workshops, by virtue of an overall view of a large range of questions, covered the need for comprehensive information in the field of metadata infrastructures and data infrastructures very well.

The workshop presentations as well as further information on NOKIS ++ are available on the website [www.nokis.org](http://www.nokis.org).

## Events in 2006

03. - 08. 09. 2006 **ICCE 2006** 30<sup>th</sup> International Conference on Coastal Engineering, San Diego, Kalifornien, USA  
www: [www.icce2006.com](http://www.icce2006.com)
06. - 08. 09. 2006 **River Flow**, Lissabon, Portugal  
www: [www.riverflow2006.org](http://www.riverflow2006.org)
10. - 13. 09. 2006 **ICHE 2006** 7th International Conference on Hydroscience and Engineering, Philadelphia, USA  
www: [thor.cae.drexel.edu/ICHE2006/intro.html](http://thor.cae.drexel.edu/ICHE2006/intro.html)
18. - 20. 09. 2006 **Littoral 2006** Conference "Costal Innovation and Initiatives", Gdansk, Polen  
www: [www.littoral2006.gda.pl](http://www.littoral2006.gda.pl)
24. - 26. 09. 2006 **KRING 2006**, Hull, England  
www: [kfki.baw.de/?id=112#623](http://kfki.baw.de/?id=112#623)
01. 11. 2006 **11. KFKI Statusseminar**, Bremerhaven  
www: [kfki.baw.de/index.php?id=115](http://kfki.baw.de/index.php?id=115)