

# 9<sup>th</sup> International SedNet Conference 23-26 September 2015 Krakow Poland

# Solving societal challenges; working with sediments

# Preliminary programme

Hosted and co-organized by Faculty of Geology, Geophysics and Environmental Protection AGH University of Science and Technology Al. Mickiewicza 30, 30–059 Krakow, Poland

Sed Net



# Background

Sediments and society – what is the connection? Sediments – unseen or unnoticed most of the time – have a variety of impacts on human activities and vice versa, particularly along rivers. If the river is used for shipping, too much sediment may become an obstacle. The foundations of bridges may become unstable if too little sediment is available, creating a safety risk. After flooding, sediments are distributed over flood plains and with increased construction in natural flood plains these sediments add to the clean-up efforts and may become a health issue if contaminated. Even more dangerous are the mud and debris flows that can occur during larger floods.

Our aquatic resources are linked to sediment with its many and sometimes conflicting ecosystem services: recycling of nutrients, providing habitats for fish, adsorbing pollutants... But different ecosystem services are accompanied by different interests. How to deal along a watershed with too much or too little sediment? What to do about contaminated sediment that is mobile and may be taken downstream with the next flood? Or what about the contamination that stays in place but affects the local ecology and regional communities? Does contaminated mean "dangerous"? What is "too much" or "enough" sediment in a river and does it justify e.g. dredging or sand exploitation or are there alternatives?

Different countries have different experiences with the quantity and quality of sediments in their rivers, and with dealing with the challenges that arise from there. The role, attributed function and perception of sediments influence the way it is managed in a river system. At the core of the SedNet conference in 2015 will be the link between sediment and society, and the exchange of knowledge and respective experiences on an international level. Sediments are an integral part of the river system. Is this role acknowledged in a sufficient way?



# **Conference Programme**

The conference programme consists of thematic platform sessions, special sessions, a workshop and working group sessions. Further there are poster sessions, an excursion, and ample room is available for networking and starting up new initiatives, like thematic working groups.

### **Platform Sessions**

The following platform sessions are organised:

- Sediments and society (23 September, morning)
- Sediment quality and perception (23 September, afternoon)
- Sediment in historical and recent mining areas (23 September, afternoon)
- Sediment remediation and uses (23 September, afternoon)
- Valuing sediments and their services (24 September, morning)
- Understanding sediment fluxes and budgets on a river basin scale (25 September, morning)
- Building with dredged material and/or sediment (25 September, morning)



#### Special Session: Impact of Fine Sediment on Ecology (24 September, afternoon)

Excessive fine sediment loadings delivered to rivers from a variety of sources including agriculture have detrimental impacts on aquatic ecology and thereby degrade the ecological status of freshwater as well as estuarine and marine environments. Therefore there is a need to improve knowledge of the linkages between excess fine sediments and aquatic organisms in order to develop revised targets for guiding catchment management. These targets can be used to assess compliance to the Water Framework Directive and other environmental policies and should be accepted by Member States. This Special Session will review recent work examining the impact of excessive fine sediment loads on freshwater as well as estuarine/marine biology (fish, macroinvertebrates, diatoms, macrophytes) and the development of frameworks for supporting targeted decision-making for fine sediment management. A possible outcome may be a proposal for how to advance the scientific state-of-the-art in this field.

#### Special Session: How to Build Public Trust for Sediment Management? (25 September, morning)

The handling of sediments in the Elbe estuary is the key issue of a dialogue that began in late 2013. A group comprised of 40 regional stakeholders (environmental NGOs, business representatives, Ministries, communities, fishery and tourism organizations) is discussing future options for sediment management, the role of sediment remediation and river engineering measures. Within 16 meetings more than 35 measures have been identified, discussed and assessed. The extended value of this consultation becomes obvious when looking at the non-technical aspects added to the discussion by stakeholders representing societal, economic and environmental interests - sediments play a vital role for all of them.

The session during the SedNet conference aims at discussing stakeholder involvement in general. The Elbe case will be presented as recent example and will lay ground for an open discussion with the SedNet community to share experiences with communicating and building trust with a broader public on complex issues involving sediments.

#### Workshop: Sediment Discharge Test (24 September, morning)

A tool, consisting of an Excel-application and Guidance Document developed in the Netherlands by Rijkswaterstaat (RWS) and Deltares, which enables its user to assess the effect of contaminated sediments on the water quality – COME AND TRY IT YOURSELF!

The Water Framework Directive (WFD) does not have compulsory standards to remediate contaminated sediments. There might be national legislation of course, but the only European obligation is that contaminated sediment may not hamper the WFD water quality standards and biological quality elements. However, it is not so easy to quantify the relationship between sediment and water quality or ecology in surface waters. Several tools are developed in the Netherlands to solve this problem. RWS and Deltares developed a Guidance Document for Sediment Assessment (including an Excel-application SEDIAS) to determine whether existing sediments threat the WFD objectives. If they do, remediation of the sediments will be part of the WFD measures.

However, sediments are often dredged or reused for other reasons, such as navigational depth. Licence agencies have to decide whether these activities threat compliance with the WFD-objectives. The Sediment Discharge Test is a simple Excel-application for water managers and authorities to decide whether they can give a permit. It basically fits in the approach of discharge licenses; that is why it is called Sediment Discharge Test. Typical examples of activities that can be evaluated by the SDT are: creating a new (historically) contaminated top layer of sediment after 1) maintenance dredging, 2) erosion of historically contaminated river banks as a result of hydraulic changes in the river bed, 3) deepening of a navigation channel, or 4) expanding the river area by adding a former industrial site.

At the workshop you will get some background information, an explanation of the tool, but most of the time you will be trying out the tool yourself by executing some practical exercises on a computer. If you wish, you can adjust the exercises to fit your own specific cases. You should have basic knowledge of MS Excel.

The English version of both the Guidance Document for Sediment Assessment and its SEDIAS Excel-application and the Guidance Sediment Discharge Test and its Excel-application can be found on www.helpdeskwater.nl (go to *English – Sediment*).

### Working Group Sessions (24 September, afternoon)

### SedNet Working Group: Sediments in a Changing Environment

In aquatic surroundings, especially in river basins, sediments are

- transported by natural processes over long distances
- manipulated due to construction, nautical causes etc.
- transferred to land by natural events
- deposited on land by man
- inhabited by organisms
- etc.

Mobile sediments – whether by natural or management processes – are exposed to changing environmental conditions which may have an impact on the quality of the material. For example, attached contaminants may become more or less bioavailable with changing pH, UV-radiation, redox potential, organic carbon... Changing conditions could therewith impact various sediment ecosystem services such as, for example, nutrient recycling, quality of habitat, storage of pollutants, but also e.g. capacity of land disposals.

In environmental sciences, a lot of information has been gathered on the effect of individual parameter changes on sediment quality, on bioavailability of single contaminants, on experiences with sediments that are transported to floodplains during floods. But do we have an idea, what the consequences are, when climate change leads to an increase of temperature?

While there will hardly be overall general trends that can be easily identified, with this WG we would like to gain insight into any environmentally relevant conclusions from the current, fragmented knowledge, identify research gaps and plan the way ahead towards further investigations that should help us to improve our understanding of the sediment environment.

The WG session during this SedNet conference 2015 is supposed to strengthen the formation of an active WG by people that are interested in this topic. All potential participants are invited to share ongoing discussions within our Linkedin discussion group "sediments in a changing environment" prior to and after the meeting, while this is not imperative for joining the WG session during the conference. For access to the discussion group please contact Eric de Deckere (Eric.deDeckere@haven.Antwerpen.be) or Susanne Heise (Susanne.heise@haw-hamburg.de). The WG session in the afternoon will be divided into two parts:

Part 1 will focus on the topic "when sediment becomes soil and soil becomes sediment". There will be an introductory talk and statements/ input from the participants are welcome. Please contact Susanne Heise about any presentations that you would like to give on that topic. Part 2 will be dedicated towards further topics of interest that should be followed up in this WG, possibly in the form of future workshops lasting several days, supported by SedNet. The outcomes of these workshops that SedNet envisions should be a state of the art of that respective topic, a collection of relevant questions and knowledge gaps and preferably a draft/suggestions on how to proceed in the coming future.

#### Getting Sediment at the European Strategic Research Agenda – Meeting of the SedNet Working Group Sediment Science and Policy Interfacing (SPI)

At the SedNet conference in Lisbon in 2013, some 30 sediment SPI enthusiasts – kicked-off the SedNet WG Sediment SPI. The objective of this WG is to strengthen the connection between science and policy for improved sediment management. The message the WG wishes to get across is that sustainable sediment management is an aid to reach the goals set in related EU policies (like WFD, MSFD, NATURA 2000, etc.). Furthermore, a better understanding of the (crucial) role and value of sediment in nature and aquatic systems will enable more sustainable sediment management. However, so far sediment does not receive proper attention in EU research programmes and Horizon 2020 (H2020) in particular.

Now a window-of-opportunity opens to get this changed!

The EC H2020 Coordination and Support Action project INSPIRATION aims to provide for Europe a Strategic Research Agenda (SRA) – including suggestions for (alternative) funding models – for the soil-sediment-water-system and land-use. This also in relation to using the soil-sediment-water-system for solving societal challenges. The 3-year project started 1st of March 2015. More information on the project can (soon) be found on: www.inspiration-h2020.eu.

At our SedNet conference in Krakow, INSPIRATION is right in the middle of collating the following information: 1) preferred topics for the SRA; 2) experiences regarding the use of scientific knowledge to tackle societal challenges (incl. improving of business opportunities); 3) predominantly used as well as promising alternative, national funding schemes/mechanisms/programmes for knowledge production and dissemination; 4) experiences regarding the use of any trans-national, common budget for scientific knowledge production. You are invited to join this session to bring in and discuss your sediment related suggestions for these four topics. The session will be interactive.

All SedNet conference participants are welcome to join the SedNet SPI WG and this session in particular.

#### **New SedNet Working Groups**

SedNet welcomes new initiatives – brought forward by the network – on sediment research and management. Any conference participant who would like to organise a brainstorm on any topic in the field of sediment research and sediment management will be given the possibility to organise a working group meeting. Those meetings are open for any conference participant to join and thus contribute to the discussion. The outcome of these WG-meetings will be presented very briefly in the plenary session at the end of the conference.

The most promising working group initiatives may get some support from SedNet to kick-off the execution of activities that they propose.

Please contact the SedNet Secretariat if you have a proposal for a new working group.

#### **Poster Session**

During the conference posters will be exposed in the coffee break area near the main conference room.

Extra attention will be paid to the posters on 23 September early evening and 24 September around lunchtime.

In addition to the general poster session, "Poster corners" will be organized around the following specific topics: "Sediment Remediation

and Management", "Sediment Issues in Poland", and "Strategies of Managing Sediments in River Basins". At these Poster Corners, authors will shortly present the highlights of their posters, followed by discussion with the audience.

The conference participants will be invited to give their votes for the best of all posters. The winner will be awarded with a prize.

#### Excursion to the Wieliczka Salt Mine and dinner (24 September, evening)

On Thursday 24 September, in the evening, an excursion by bus is organised to the Wieliczka Salt Mine.

Wieliczka is located at 20 minutes by bus from Krakow. The mine was built in the 13th century and produced table salt continuously until 2007, as one of the world's oldest salt mines still in operation. Commercial mining was discontinued in 1996 due to low salt prices and mine flooding.

The mine's attractions include dozens of statues and four chapels that have been carved out of the rock salt by the miners. The oldest sculptures are augmented by the new carvings by contemporary artists.

The Wieliczka mine is often referred to as "the Underground Salt Cathedral of Poland."

It is a world class monument, featuring among twelve objects on the UNESCO's World Cultural and Natural Heritage List. Dinner will be served in the mine.

#### Excursion to Tyniec (26 September, morning)

Saturday morning the conference participants can join an excursion by boat to the historical village of Tyniec, a former fortified settlement that was founded in the 7th-5th century BC. The rivercruise starts near Wawel castle in the historical centre of Krakow. During the 2 hour trip to Tyniec, we will pass Krakow Zoo, the Norbertine Monastery (12th century), the Church of the Holy Saviour (11th/12th century), the Bielany forests, and the Kosciuszko Dam that regulates the water level on the Vistula River.

We will get off board at Tyniec, and spend an hour to make a stroll and visit the Benedictine Monastery that was founded in the 11th century. On the way back to Krakow, lunch will be served on board.



# Wednesday 23 September 2015

08.30-09.15	Registration
	Opening Session
09.15-09.40	<ul> <li>Opening and welcome by</li> <li>Marc Eisma, Port of Rotterdam Authority, NL / Chairman SedNet</li> <li>Adam Piestrzynski, dean Faculty of Geology, Geophysics and Environmental Protection, AGH University of Science and Technology, Poland</li> <li>Edeltrauda Helios-Rybicka, on behalf of the AGH-local organizing team</li> </ul>
	<b>Sediments and Society</b> Chairman: Marc Eisma, Port of Rotterdam Authority, NL / Chairman SedNet
09.40-10.00	Making sediment "relevant" to policy/decision makers: linking urban sediment management to social benefits and sustainability Eugene Peck, Viridian Alliance, USA
10.00-10.20	Economic modelling of the management of dredged marine sediments Joe Harrington, Cork Institute of Technology, Ireland
10.20-10.40	ls scientific knowledge enough? Considerations on sediment management. Mafalda Carapuço, Universidade de Lisboa, Portugal
10.40-11.00	Social, geographical, technical, environmental and economic approaches to strengthen marine sediment reuse options through the CEAMaS project <i>Tristan Debuigne, CD2E, France</i>
11.00-11.30	Coffee break
	<b>Sediments and Society (continued)</b> Chairman: Richard Eertman, Rijkswaterstaat, NL
11.30-11.50	In situ management of contaminated sediment, habitat restoration, and community interests – can they co-exist? Rebecca Gardner, Anchor QEA, Norway
11.50-12.10	The role of the municipality in cleanup of contaminated sediments, lessons from the Thea Foss Waterway in Tacoma, Washington Philip Spadaro, The Intelligence Group, USA
12.10-12.30	Expert centre PFCs - Addressing the problem of emerging contaminants and new substances for policymakers and land owners Martijn van Houten, Witteveen+Bos, NL
12.30-12.50	Human health risk assessment guidance for dredging and dumping at sea of marine and estuarine sediments Julie Droit, Cerema, France
12.50-14.20	Lunch

	<b>Sediment Quality and Perception</b> Chairpersons: Carmen Casado and Benoît Ferrari, Centre for Applied Ecotoxicology EAWAG-EPFL, Switzerland	<b>Sediments in Historical and Recent Mining Areas</b> Chairman: Peter Heininger, Federal Institute of Hydrology, Germany	
14.20-14.40	Contamination of sediments in large riverine systems – assessment and its apprehension Ewa Szalinska, Cracow University of Technology, Poland	Dismissed mines along the coast of Sulcis Iglesiente (west Sardinia, Italy) and their impact on the coastal marine area <i>Elena Romano, ISPRA, Italy</i>	
14.40-15.00	The complexity of sediment contamination in backwaters f the Elbe River, what can we learn from it and does it matter? States and the set of Applied Sciences, ermany States and the set of the States a		
15.00-15.20	Evaluation of the quality and significance of stormwater discharge to sediment quality in urban waterways <i>Katherine Cronin, Deltares, NL</i>	A comprehensive assessment of mercury loading, fate and transport within a mining impacted watershed <i>Eric Blischke, CDM Smith, USA</i>	
15.20-15.40	Multi-decadal records of endocrine-disrupting compounds (PCBs, dioxins, furans, hormones, and parabens) in Rhône River sediment cores Brice Mourier, Groupement de Recherche Eau Sol Environnement (GRESE), France	Environmental risk assessment from historical and recent mining and smelting contamination of the Odra River System with selected metals <i>Ewa Adamiec, AGH University of Science and Technology,</i> <i>Poland</i>	
15.40-16.10	Coffee break	Coffee break	
	<b>Sediment Quality and Perception (continued)</b> Chairperson: Susanne Heise, Hamburg University of Applied Sciences, Germany	<b>Sediment Remediation and Uses</b> Chairperson: Samira Brakni, CD2E, France	
16.10-16.30	Contamination of coastal sediments from historic landfills: A ticking time-bomb Francis O'Shea, Queen Mary University of London, UK	Handling sediment transfer in practice Dietrich Bartelt, DB Sediments, Germany	
16.30-16.50	Marine sediment indicators in the Gulf of Gdańsk and Oslofjord – a comparison of climate change impacts on the ecosystem Gijs Breedveld, Norwegian Geotechnical Institute, Norway	Strategic placement of dredged sediment to support surrounding resources Joseph Gailani, US Army Corps of Engineers, USA	
16.50-17.10	The importance of understanding sediment dynamics to achieve a good chemical status in harbor environments <i>Johnny Teuchies, University of Antwerp, Belgium</i>	Transport of suspended sediment in ports, due to propeller activity Anita Whitlock Nybakk, NGI, Norway	
17.10-20.00	Welcome reception and Poster Session		

# Thursday 24 September 2015

	<b>Valuing Sediments and their Services</b> Chairperson: Jos Brils, Deltares, NL	<b>Workshop "Sediment Discharge Test"</b> Convenors Marieke Prins, Rijkswaterstaat, NL and Leonard Osté, Deltares, NL
	a. Mapping and assessment of sediment related ecosystem services	For background information of this workshop, see page 3
09.00-09.30	Invited key-note: Mapping and assessment of ecosystems and their services (MAES) MAES expert (speaker to be confirmed)	<ul> <li>Welcome</li> <li>Sediment quality and the objectives of the Water Framework Directive</li> <li>Principles of the Sediment Discharge test (SDT)</li> </ul>
09.30-09.50	Recommendations for mapping and assessment of sediment related ecosystem services <i>Miguel Peréz Quesada, University of Technology Darmstadt,</i> <i>Germany</i>	by Marieke Prins The Excel-application of the SDT by Leonard Osté
09.50-10.10	Discussion	Working with the SDT - Introduction Cases
	b. Examples of applying sediment related ecosystem services	by Marieke Prins and Leonard Osté
10.10-10.30	The utilization of bottom sediments to improve soil fertility Agnieszka Baran, University of Agriculture in Krakow, Poland	
10.30-11.00	Coffee break	Coffee break
11.00-11.20	Microbial biostabilization – an important ecosystem service at microscale Sabine Gerbersdorf, University Stuttgart, Germany	Working with the SDT - Practical Exercises by Marieke Prins and Leonard Osté
11.20-11.40	Lift up of lowlands, looking at the reuse of sediments on peat meadows by looking at the physical, chemical and biochemical properties in relation to the local situation <i>Arjan Wijdeveld, TU Delft, NL</i>	Summary, evaluation, conclusions by Marieke Prins
11.40-12.00	Quantifying ecosystem service trade-offs at the catchment scale: from landscape management to aquatic protection <i>Sabine Apitz, SEA Environmental Decisions, UK</i>	
12.00-14.00	Poster Session and lunch	
	<ul> <li>Parallel Activities</li> <li>A. SedNet Working Group: Sediments in a Changing Environr</li> <li>B. Getting Sediment at the European Strategic Research Ager Science and Policy Interfacing</li> <li>C. Special Session on the Impact of Fine Sediment on Ecolog</li> </ul>	nda – Meeting of the SedNet Working Group Sediment
14.00-17.30	<b>A. SedNet Working Group: Sediments in a Changing Environme</b> Convened by Susanne Heise, Hamburg University of Applied S Authority, Belgium	
	For background information on this Working Group session see po	age 4
	The session will be divided into two parts: Part 1 will focus on the topic "when sediment becomes soil ar and statements/input from the participants are welcome. Plea about any presentations that you would like to give on that to Part 2 will be dedicated towards further topics of interest that the form of future workshops lasting several days, supported	ase contact Susanne Heise (susanne.heise@haw-hamburg.de) opic. : should be followed up on in this working group, possibly in

14.00-17.30	<ul> <li>B. Getting Sediment at the European Strategic Research Agenda – Meeting of the SedNet Working Group Sediment Science and Policy Interfacing (SedNet WG Sediment SPI) Moderators: Adriaan Slob (TNO, NL), Linda Maring and Jos Brils (both Deltares, NL, and representing H2020 project INSPIRATION)</li> <li>For background information on this Working Group session see page 4</li> <li>An interactive session to collate and discuss <ol> <li>preferred topics for the Strategic Research Agenda;</li> <li>experiences regarding the use of scientific knowledge to tackle societal challenges (incl. improving of business opportunities);</li> <li>predominantly used as well as promising alternative, national funding schemes/mechanisms/programmes for knowledge production and dissemination;</li> <li>experiences regarding the use of any trans-national, common budget for scientific knowledge production.</li> </ol> </li> </ul>		
	You are invited	d to join this session to bring in and discuss your sediment related suggestions for these four topics.	
14.00-17.30	<ul> <li>C. Special Session on the Impact of Fine Sediment on Ecology</li> <li>Convened by</li> <li>Adrian Collins, Rothamsted Research, UK</li> <li>Iwan Jones, Queen Mary University of London, UK</li> <li>Mike Stone, University of Waterloo, Canada</li> <li>For background information on this Special Session see page 3</li> </ul>		
	14.00-14.20	Linking agricultural fine sediment pressure and impacts on aquatic ecology for informing catchment management across England and Wales <i>Adrian Collins, Rothamsted Research, UK</i>	
	14.20-14.40	Using innovative geotextile constructions to control fine sediment transport and to improve water quality <i>Paul Stook or Gustav Egbring, Tauw Group, NL</i>	
	14.40-15.00	Exploring the linkage between fine sediment, phosphorus and stream ecology in wildfire impacted watersheds <i>Mike Stone, University of Waterloo, Canada</i>	
	15.00-15.20	Effect of diatoms on flocculation of suspended bed-sediments in a large shallow lake: consequences for ecology and sediment transport processes <i>Miguel de Lucas, Deltares, NL</i>	
	15.20-15.50	Coffee break	
	15.50-16.10	Optical effects on aquatic ecosystems of fine suspended sediment, and optical methods for its monitoring and management Rob Davies-Colley, National Institute of Water and Atmospheric Research, New-Zealand (to be confirmed)	
	16.10-16.30	Sediment source risks in landscapes: from field scale scoring to Bayesian approaches Sabine Apitz, SEA Environmental Decisions, UK	
	16.30-16.50	Marker Wadden: sediment management for ecological restoration Roel Posthoorn, Vereniging Natuurmonumenten, NL	
	16.50-17.10	Development and independent testing of a new biotic index of stream macroinvertebrate community response to deposited fine-grained sediment <i>Iwan Jones, Queen Mary University of London, UK</i>	
	17.10-17.30	Discussion and closure of session	
18.00-22.00	Visit to and dir	nner at the Wieliczka Salt Mine (see information on page 5)	

# Friday 25 September 2015

	<b>Understanding Sediment Fluxes and Budgets on a River</b> <b>Basin Scale</b> Chairman: Gijs Breedveld, Norwegian Geotechnical Institute, Norway	<b>Building with Dredged Material and/or Sediments</b> Chairperson: Astrid van Vosselen, Flemish Government, Belgium		
09.00-09.20	Towards an integrated and cooperative management of fine sediment fluxes in a large transboundary basin: the case of Upper Rhône River <i>Christophe Peteuil, Compagnie Nationale du Rhône, France</i>	Management decision process of beneficial reuse of marine sediments in civil engineering applications Faycal El Fgaier, Ecole Centrale de Lille, France		
09.20-09.40	Sediment flux from the Elbe River into the Elbe Estuary – indications from Multibeam Sonar Surveys Christian Svenson, Federal Institute of Hydrology, Germany	Concrete achievements containing dredged sediment carried out under of the "Sédimatériaux" approach in Nord- Pas de Calais region <i>Samira Brakni, CD2E, France</i>		
09.40-10.00	The VERSEAU – TRACKSED - DRASTIC Project: Quantification of sediment fluxes in the Loire hydrographic basin <i>Rosalie Vandromme, BRGM, France</i>	A tool for pre-selecting beneficial uses of dam fine sediment Antoine Faure, EDF R&D, France		
10.00-10.20	Suspended sediment and contaminant transport monitoring in navigable and unnavigable waterways (Wallonia, Belgium) Anne-Cécile Denis, Institut scientifique de service public / University of Liège, Belgium	avigable and unnavigable waterways Bruna Oliveira, Wageningen University and Research Centre, I im) is, Institut scientifique de service public /		
10.20-10.50	Coffee break	Coffee break		
	<b>Understanding Sediment Fluxes and Budgets on a River</b> <b>Basin Scale (continued)</b> Chairman: Gijs Breedveld, Norwegian Geotechnical Institute, Norway	Special Session: How to Build Public Trust for Sediment Management? Convened by: Maik Bohne and Henrich Röper, Hamburg Port Authority, Germany		
10.50-11.10	Contaminant fluxes across the sediment-water interface Paul Frogner-Kockum, Swedish Geotechnical Institute, Sweden	This session aims at discussing stakeholder involvement in general. The Elbe case will be presented as recent example and will lay ground for an open discussion with the SedNet community to share experiences with communicating and		
11.10-11.30	Modelling of the historical and current hydrodynamics and mud balance of the Scheldt estuary Dieter Meire, Flanders Hydraulic Research, Belgium	building trust with a broader public on complex issues involving sediments. The session will start with a 30 minutes introductory precentation by Maik Bohne and/or Henrich Pöper and is		
11.30-11.50	Hydraulic and morphological model investigation of the River Oder along the Polish-German border Thorsten Hüsener, Bundesanstalt für Wasserbau, Germany	presentation by Maik Bohne and/or Henrich Röper, and is followed by a discussion session. For more information see page 3		
11.50-12.10	Erosion modeling towards, and sediment transport modeling in the unnavigable watercourses in Flanders, Belgium Bram Ferket, Antea Group, Belgium			
12.10-12.30	Predicting sediment yield with a GIS-based USLE model in a small mountainous catchment (Northern Portugal): influence of lithology Anabela Reis, University of Trás-os-Montes e Alto Douro / University of Coimbra, Portugal			
12.30-14.00	Lunch			

	<b>Wrap-up</b> Marc Eisma, Port of Rotterdam Authority, NL / Chairman SedNet
14.00-15.00	Wrap-up of conference sessions and working groups by session chairmen/convenors
15.00-15.15	SedNet Poster Prize 2015
15.15-15.30	Closing and adjourn

# Saturday 26 September 2015

09.00-14.00

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On the way to Tyniec we pass: <b>The Zoo</b> – long time ago this place used to be a village in the suburbs of Krakow, where there were royal gardens, the one that King Sigismund gave Bona Sforza. In the garden herbs, flowers and vegetables were grown.
<b>Norbertine Monastery</b> - founded in the 12 <sup>th</sup> century for the monks and nuns of St. Norbert from Doxan in the now Czech Republic. Over the centuries, the monastery has been repeatedly attacked and destroyed by the Tatars.
<b>Church of the Holy Saviour</b> - was founded at the turn of the 11 <sup>th</sup> and 12 <sup>th</sup> century. Famous for painting/picture of the image of Christ on the cross, dressed in expensive clothes, shoes embroidered with pearls, with a golden crown on his head.
<b>Bielany</b> – these are forests and hills near Srebrna Góra, with the church and monastery of Camaldolese monks perched on top. In the monastery garden there are bungalows of hermits.
<b>The Kosciuszko Dam</b> – it regulates the water level on the Vistula River. The dam, opened in 1990, is located near the western border of Krakow. It is one of the elements of the Upper Vistula Cascade.
<b>Tyniec</b> - a former fortified settlement that was founded in the 7 <sup>th</sup> to 5 <sup>th</sup> century BC. Until the 18 <sup>th</sup> century it had a fortress with its own military attachment.
<b>Benedictine Monastery in Tyniec</b> - founded in the second half of the 11th century, the Benedictine Fathers were brought to Krakow probably by King Boleslaw the Brave. The first Romanesque church survived only in fragments, like the later Gothic temple. It is now a three-nave Baroque Basilica
In the abbey in Tyniec there will be an hour break, and the possibility to visit the abbey. On the way back to Krakow a light lunch will be served on board.

Excursion by boat on the Vistula River to the historical village of Tyniec



Pictures of excursion SedNet Oslo 2008

### Registration

For the conference registration form see www.sednet.org Deadline for registration is **1 September 2015**.

## **Conference Fee**

Regular fee:400 euroStudents:100 euroIf a student has submitted an abstract that has been selected for oral<br/>presentation, then his/her fee is waived.

The fee includes admission to the whole conference programme, social (dinner) events on the evenings of 23 and 24 September 2015 and an excursion on 26 September. The fee excludes 23% Polish VAT.

### Language

The conference language will be English. No translation facilities will be provided.

### **Conference Venue**

The event will be hosted at the Faculty of Geology, Geophysics and Environmental Protection of AGH University of Science and Technology, Al. Mickiewicza 30, 30-059 Krakow, Poland. www.agh.edu.pl/en

### **Hotel accommodation**

Suggestions for hotels can be found on the conference webpage on www.sednet.org

### **For Further Information**

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#### SedNet

SedNet is the European network which aims to incorporate sediment issues and knowledge into European strategies to support the achievement of good environmental status and to develop new tools for sediment management. Its focus is on all sediment quality and quantity issues at the river basin scale, ranging from freshwater to estuarine and marine sediments. SedNet brings together experts from science, administration, industry and consultants. It interacts with the various networks in Europe that operate at national or international level or that focus on specific fields (such as science, policy making, sediment management, industry, education).

Special attention was devoted in recent years to the integration of sediment management in the WFD implementation process, and particularly in the River Basin Management Plans.

For further information about SedNet see www.sednet.org

