

# TECHNEAU

## Safe Drinking Water from Source to Tap State-of-the-Art and Perspectives

Conference: June 17-19, 2009  
Crowne Plaza Hotel  
Maastricht, the Netherlands



### TECHNEAU Conference Programme - Introduction

#### Leading podium for drinking water professionals

This conference will provide a leading podium for those professionals concerned with drinking water needs and technologies and will be focused on all aspects of the safe drinking water such as trends and adaptive strategies, technologies, sensors and monitoring, distribution and operation, small scale systems, risk assessment and risk management, simulation, consumer issues, alternative sources, nanotechnologies in water applications, climate change impacts and future of drinking water. Workshops and field trips will allow participants to contribute actively.

#### State of the art perspectives

The conference will present the state of the art and explore pathbreaking trends, ideas and technologies for the future of drinking water, especially in Europe, not only from a technical perspective, but from a more comprehensive point of view comprising topics such as:

- adaptation and integration of external factors, e.g. climate change, demographic shifts
- water and energy
- consumer relationship
- administrative and regulatory questions.

#### The conference target

This conference is targeted for scientists and researchers, engineers, consultants, academics, health officials, management in water supply companies and utilities;

Administration and regulators, implementing organizations, non-governmental organizations and governmental agencies;

Manufacturers and their umbrella organisations and the industrial community from Europe and abroad.

wml  
Limburgs drinkwater

IWA  
International Water  
Association

TECHNEAU  
www.techneau.eu



Organised by TECHNEAU in cooperation with the International Water Association (IWA), hosted by WML, Limburg Water Company and sponsored by ENWOR and EU

## Overall Program

### WEDNESDAY June 17

12.30	<i>Lunch</i>
13.30	Welcome addresses <b>Ria Doedel, Theo van den Hoven</b>
14.00	<b>1</b> Global challenges of the water sector <b>Paul Reiter</b> (IWA)
14.30	Meeting the challenges in water sector the role of science- <b>Wim van Vierssen</b> (KWR)
15.00	Techneau - a collective effort towards safe water supply - <b>Christian Kazner</b> (RWTH)
15.30	<i>Coffeebreak</i>
16.00	Highlights of ongoing research projects EC/DC Research & EU project coordinators
17.00	Demonstrating TECHNEAU outcomes in practice Including video with case studies
18.00	<b>Ian Walker</b> (WRc)
19.00	Welcome reception Maastricht townhall

### THURSDAY June 18

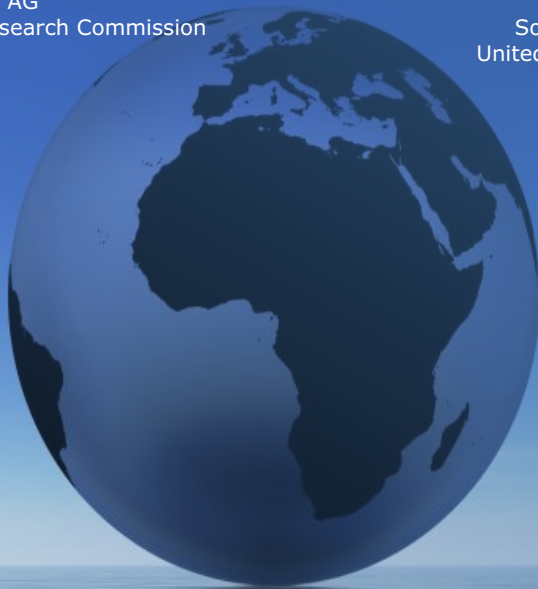
09.00	<b>2</b> Treatment State-of-the-art: <b>Marie-Renée de Roubin</b> (Veolia)	<b>3</b> Sensors & monitoring State-of-the-art: <b>Frank Sacher</b> (TZW)
11.00	<i>Coffeebreak</i>	
11.30	<b>4</b> RA/RM State-of-the-art: <b>Thomas Petterson</b> (Chalmers)	<b>5</b> Distribution State-of-the-art: <b>Sveinung Sægrov</b> (Sintef)
13.30	<i>Lunch</i>	
14.30	<b>6</b> Small scale systems <b>Boris Lesjean</b> (KWB)	<b>7</b> Simulation <b>Luuk Rietveld</b> (TUD)
15.30		
15.45	Introduction to targeted workshops: Cross-cutting issues:	
16.00	1. Future in water treatment research <b>Frans Schulting</b> (GWRC)	2. Connecting Policy and Research <b>Eddo Hoekstra</b> (JRC)
		3. Knowledge transfer of research outcomes <b>Carleen Mesters</b> (KWR)
17.30	Wrap-up of workshops	
18.00	Joint dinner	
18.30		

### FRIDAY JUNE 19

09.00	<b>8:</b> Climate change <b>Gertjan Zwolsman</b> (KWR)
09.30	<b>9:</b> Consumer involvement <b>Chris Fife-Schaw</b> (Surrey)
10.00	<b>10:</b> Nanotechnologies in water applications - potentials and risks <b>Eugene Cloete</b> (SUN)
10.30	<i>Coffeebreak</i>
11.00	<b>11:</b> Alternative water supply & sources <b>Thomas Wintgens</b> (FHNW)
11.45	<b>12:</b> Lessons learned from other continents <b>Mike Farrimond</b> (GWRC)
12.10	Closing address <b>Theo van den Hoven</b> (KWR)
12.30	<i>Lunch</i>
13.30	Technical tours:  A) Water softening plant Limburg, NL B) UF WTP Roetgen, D (close to Aachen)
17.30	

## TECHNEAU consortium

Alpha MOS	France
Anjou Recherche Veolia	France
Aqualyng	Norway
bbe Moldaenke	Germany
BioDetection Systems b.v.	The Netherlands
Chalmers University of Technology	Sweden
EAWAG	Switzerland
EUCETSA	Belgium
Free University of Berlin	Germany
IGB Institute of Freshwater Ecology and Inland Fisheries	Germany
IHE Institute for Water Education Delft	The Netherlands
Indian Institute of Technology Delhi	India
Kompetenzzentrum Wasser Berlin	Germany
KWR Watercycle Research Institute	The Netherlands
LNEC National Civil Engineering Laboratory	Portugal
Mekorot	Israel
National Institute of Public Health	Czech Republic
NTNU Norwegian University of Science and Technology	Norway
Opalium	France
Riga Technical University	Latvia
RWTH Aachen University	Germany
scan liquid monitoring networks	Austria
SINTEF	Norway
Swartz Water Utilisation Engineers	South Africa
TU Delft	The Netherlands
TZW Water Technology Center	Germany
University of Surrey	United Kingdom
vermicon AG	Germany
Water Research Commission	South Africa
WRc	United Kingdom



## Programme - Wednesday, June 17, 2009

12.30	Lunch
13.30	Welcome address General Director WML, <b>Ria Doedel</b> , Limburg Water Company (NL)
13.50	Welcome address <b>Theo van den Hoven</b> , coordinator TECHNEAU, KWR (NL)
<b>Challenges of the Water Sector</b>	
14.00	Global Challenges of the Water Sector - <b>Paul Reiter</b> , IWA (NL)
14.30	Meeting the challenges of the water sector - the role of science - <b>Wim van Vierssen</b> , KWR (NL)
15.00	TECHNEAU - a collective effort towards safe water supply - <b>Christian Kazner</b> , RWTH, Aachen (Germany)
15.30	Coffee break
<b>Highlights from EU Research</b>	
16.00	Highlights of ongoing EU research projects - <b>Andrea Tilche</b> , EC/DG Research
16.15	SWITCH - Urban Water - <b>Kala Vairavamoorthy</b> , UNESCO IHE (NL)
16.30	RECLAIM WATER - Managed Aquifer Recharge for Safe IPR - <b>Thomas Wintgens</b> , FHNW (CH)
16.45	ACQWA - Water Resources in Mountain Regions - <b>Douglas Cripe</b> , EPFL (CH)
<b>Demonstrating TECHNEAU outcomes</b>	
17.00	Delivering TECHNEAU Benefits in Practice - Including a video "Safe Water from Source to Tap" featuring the Case Study Partners - <b>Ian Walker</b> , WRc Plc (UK)
19.00	Welcome reception Maastricht townhall

## Programme 1 - Thursday, June 18, 2009

### Water Treatment *chair: Marie-Renée de Roubin*

- 9.00 Current and Emerging processes to meet the challenges of drinking water treatment - **Jean-Christophe Schrotter**, Anjou-Recherche (F)
- 9.30 Development and evaluation of a new concept for drinking water treatment: The OBM process - **Kamal Azrague**, NTNU (N)
- 9.50 Direct and hybrid ceramic membrane filtration in water treatment  
**Emile Cornelissen**, KWR (NL)
- 10.10 Treatment of NF concentrates: organic micropollutant and NOM removal -  
**Catherine Daines**, Anjou Recherche (F)
- 10.30 Applications of quantitative structure-activity relationships for rejection modeling of organic solutes - **Victor Yangali/Maria Kennedy**, UNESCO IHE
- 10.45 MAR and RBF as natural treatment options- **Gesche Grützmacher**, KWB (Germany)

11.00 Coffee break

### Risk Assessment and Risk Management *chair: Thomas Petterson*

- 11.30 International outlook on WSP tools/standards - **Thomas Petterson**, Chalmers (S)
- 12.00 Scaling-up Global WSP Implementation: Networks, Tools and Advocacy -  
**Tom Williams**, IWA (UK)
- 12.20 Quantative risk assessments of water supply systems from source to tap -  
**Lars Rosén**, Chalmers University (S)
- 12.40 TECHNEAU Hazard Database and Risk reduction Option Database -  
**Ralph Beuken**, KWR (NL)
- 13.00 RA/RM case study 1: Breznice, Czech Rep - **Frantisek Kozisek**, SZU (CZ)
- 13.15 RA/RM case study 2: Upper Mnyameni South Africa -  
**Chris Swartz**, Swartz Engineers (ZA)

13.30 Lunch

### Small Scale Systems *chair: Boris Lesjean*

- 14.30 SSS for decentralised water supply and relevance of membranes,  
**Boris Lesjean**, KWB (Germany)
- 15.00 Fouling potential of polysaccharides in gravity-driven UF,  
**Wouter Pronk**, EAWAG (CH)
- 15.15 First results of a 5 m<sup>3</sup>/d gravity driven UF pilot unit, **Eric Hoa** - KWB (Germany)

15.45 **Workshops** See overall program

18.30 **Joint Dinner**

## Programme 2 - Thursday, June 18, 2009

### Sensors and Monitoring *chair: Frank Sacher*

- 9.00 State-of-the-Art in drinking water monitoring - **Frank Sacher**, TZW (Germany)
- 9.30 GCX-GC TOFMS: a novel approach for assessment of emerging contaminants-  
**Auguste Bruchet**, Suez (F)
- 9.50 Advances in microbiological methods: flow cytometry, assimilable organic carbon and pathogen growth potential - **Frederik Hammes**, EAWAG (CH)
- 10.10 Effect-directed analysis of harmful compounds in water: genotoxicity and endocrine disruption - **Minne Heringa**, KWR (NL)
- 10.30 The Versatility of Online UV/Vis- Spectrometry- an Overview -  
**Joep van den Broeke**, s::can (A)

10.50 Discussion

11.00 Coffee break

### Distribution *chair: Sveinung Sægrov*

- 11.30 Discolouration in drinking water distribution systems: Who is to blame? -  
**Jan Vreeburg**, KWR (NL)
- 12.00 Water treatment: Optimization with respect to what? -  
**Bjørnar Eikebrokk**, SINTEF (N)
- 12.20 Corrosion and corrosion modeling - **Stein Østerhus**, SINTEF (N)
- 12.40 Optimised flushing concepts - **Sebastian Richardt**, TZW (Germany)
- 13.00 Taste and odor problems in distribution networks - **David Benanou**, Anjou (F)
- 13.15 Embedding water quality changes in hydraulic modeling -  
**Helena Alegra**, LNEC (P)

13.30 Lunch

### Simulation *chair: Luuk Rietveld*

- 14.30 The European water treatment plant simulator - **Luuk Rietveld**, TU Delft (NL)
- 15.00 Modeling of biological activated carbon filtration - **Rene van der Aa**, TU Delft (NL)
- 15.15 Modelling of NOM removal by coagulation - **Bjørnar Eikebrokk**, SINTEF (N)

15.45 **Workshops** See overall program

18.30 **Joint Dinner**

**Future developments** chair: *Christian Kazner*, RWTH (Germany)

- 9.00 Adaptive strategies for drinking water production in The Netherlands - *Gertjan Zwolsman*, KWR (NL)
- 9.30 Consumer Involvement - *Chris Fife-Schaw*, University of Surrey (UK)
- 10.00 Nanotechnologies in water applications - potentials and risk - *Eugene Cloete*, University of Stellenbosch (ZA)

10.30 Coffee break

**Alternative Sources** chair: *Thomas Wintgens*

- 11.00 Recycled water and desalinated seawater replenish and replace drinking water in Australia - *Stuart Khan*, UNSW (AUS)
- 11.20 Drinking water safety: routine monitoring, trace organics, pathogenic indicators and salinity - comparing different water sources - *Jürgen Menge*, City of Windhoek (NAM)

11.45 Lessons learned from other continents - *Mike Farrimond*, GWRC (UK)

12.10 Closing Address - *Theo van den Hoven*, coordinator TECHNEAU, KWR (NL)

12.30 Lunch

**Technical Tour A**

- 13.30 Water softening plant Limburg WML, the Netherlands
- 17.30 Return to Maastricht

**Technical Tour B**

- 13.30 UF Water treatment plant Roetgen ENWOR, Germany
- 17.30 Return to Maastricht



UF Water treatment plant Roetgen ENWOR, Germany © ENWOR



Water softening plant Limburg Water Company WML © WML

## Participation Conference

Organised by TECHNEAU in cooperation with the International Water Association (IWA), hosted by WML, Limburg Water Company and sponsored by ENWOR and EU



### Registration

Registration is possible on the website:

<http://www.techneau.eu>.

The website also contains further information on hotel possibilities.

### Participant Fees

	Early Bird	Regular
IWA Member	€ 300	€ 350
Non-Member	€ 400	€ 450
Student/LIC	€ 150	€ 200

## Conference proceedings and publications

The conference language is English. There will be no simultaneous translation. The proceedings with the full papers will be handed over to the participants at the registration desk. The best papers from this conference are published in a book:

*TECHNEAU: Safe Drinking Water from Source to Tap State-of-art & Perspectives*, covering the themes of challenges of the water sector and adaptive strategies, treatment, distribution, risk assessment and risk management, sensors and monitoring, small scale systems, simulation, alternative water supply & sources, consumer involvement, and future drinking water. It will be available after june 15 2009.

Additional information:

[diana.marquardt@avt.rwth-aachen.de](mailto:diana.marquardt@avt.rwth-aachen.de)



[www.techneau.eu](http://www.techneau.eu)

TECHNEAU is an integrated project funded by the European Commission under the Sixth Framework Programme, Global Change and Ecosystems thematic priority. The project was launched in January 2006 and will run to December 2010.