

Welcome to WETPOL 2023 !

On behalf of the organizing committee, welcome in Bruges for this 10th edition of the Wetland Pollutant Dynamics and Control Symposium.

In this program book, you will find all practical information about the conference:

- The program schedule, featuring all keynote and oral presentations
- A list of poster presentations, on display in the catering hall
- A map with the locations of the conference venue, the conference diner, and the bus parking for the field trips
- Some further practical information about the fieldtrips

The book of abstracts is available as a pdf document on the website www.wetpol.org.

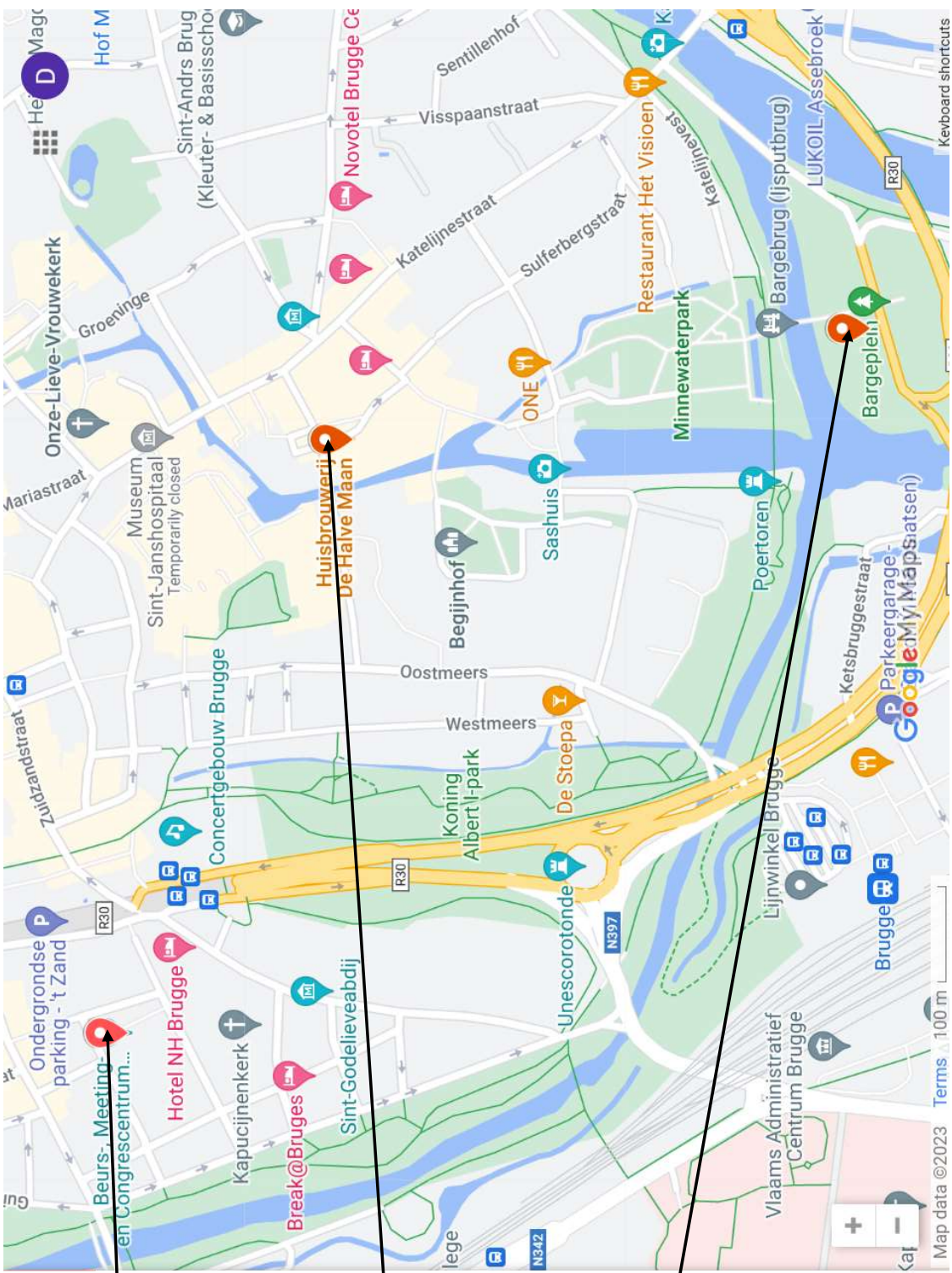
Any last minute changes or other important information will be announced on the television screens spread throughout the meeting venue BMCC.

If you have any further questions, do not hesitate to ask one of the WETPOL team members!

We hope you enjoy the conference.

The WETPOL 2023 organizing committee

Diederik Rousseau – Ghent University, Belgium
Gijs Du Laing – Ghent University, Belgium
Stijn Van Hulle – Ghent University, Belgium
Huma Ilyas – Ghent University, Belgium
Flor Louage – Ghent University, Belgium
Bart Van Der Bruggen – KU Leuven, Belgium
Mireille Martens – HZ University of Applied Sciences, The Netherlands
Emma Mc Ateer – HZ University of Applied Sciences, The Netherlands
Dion Van Oirschot – Rietland, Belgium & The Netherlands
Birgit De Bock – Aquafin, Belgium



BMCC

Conference venue
Beursplein 1

De Halve Maan

Conference diner
Walplein 26

Bargeplein (Katelijneparking)

Bus parking field trips
Bargeweg

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Registration & Welcome Coffee

Plenary session I (Chairs: Diederik Rouseau & Gijs Du Laing)

CONFERENCE OPENING AND WELCOME

WETPOL OC

WELCOME TO BRUGES

Dirk De fauw (Mayor of Bruges)

WATER RELATED CHALLENGES IN FLANDERS

Tom De Vits (Cabinet of the Flemish Minister of Environment)

KEYNOTE: WETLANDS: A PROMISING SOLUTION IN A CHANGING FRAMEWORK – PERSPECTIVES FROM AQUAFIN, THE REGIONAL WASTEWATER TREATMENT COMPANY OF FLANDERS (BELGIUM)

Birgit De Bock, Aquafin, Belgium

KEYNOTE: INTERREG AQUATUUR PROJECT: ENHANCING CLIMATE RESILIENCE BY INCREASING FRESHWATER AVAILABILITY WITH NATURE-BASED GREEN-BLUE SOLUTIONS IN THE SCHELDT MOUTH REGION

Simon De Paepe, Vlakwa, Belgium

Coffee & posters

Plenary session II (Chair: Emma McNeer)

KEYNOTE: THE IMPACT OF HIGH RELATIVE SEA LEVEL RISE ON NUTRIENT BIOGEOCHEMISTRY OF COASTAL WETLANDS: "A HARBINGER OF CHANGE FOR THE 'WORLD'S STABLE COASTLINES'"

John R. White, USA

KEYNOTE: USING WETLANDS TO MITIGATE NON-POINT SOURCE POLLUTION

Karin Tonderski, Sweden

Lunch & posters

HCH and PFAS removal (Chair: Pascal Molle)

WETLAND-[®] TECHNOLOGY FOR TREATMENT OF HCH-CONTAMINATED WATER

Miroslav Cernik, Czech Republic

ASSESSMENT OF INTENSIFIED CONSTRUCTED WETLAND FOR REMOVING PERSISTENT, MOBILE AND TOXIC (PMT) COMPOUNDS FROM GROUNDWATER AND WASTEWATER

Alicia Cano, Spain

BEHAVIOR AND IMPACT OF PER- AND POLYFLUOROALKYL SUBSTANCES WITHIN TREATMENT WETLAND MESOCOSMS

Isaac Timofeev-Maberly, Canada

INSIGHT INTO THE CONSTRUCTED WETLAND-MICROBIAL FUEL CELL TECHNOLOGY: ELECTRODE MATERIALS, PLANT CULTIVATION, AND PFAS EXPOSURE

Yaqian Zhao, China

Interreg project Aquatuur start meeting

Microplastics I (Chair: Carmen Hernandez-Crespo)

IMPACT OF MICROPLASTICS IN URBAN CONSTRUCTED WETLANDS

Tanveer Adayel, Australia

OBSERVATIONS ON MICROPLASTIC FROM WASTEWATER IN TREATMENT WETLANDS OF THE SURFACE FLOW TYPE – REMOVAL VARIABILITY AND ATMOSPHERIC DEPOSITION AS POTENTIAL EXPLANATION

Una Bångener, Finland

MICROPLASTICS IN HORIZONTAL SUBSURFACE FLOW CONSTRUCTED WETLANDS

Qintong Wang, Belgium

CSO treatment (Chair: Margit Köiv-Vainik)

NEW GERMAN CODE OF PRACTICE ON SPECIAL APPLICATIONS OF TREATMENT WETLANDS FOR CSO AND STORMWATER

Katharina Tondera, Germany

FIRST MONITORING RESULTS OF AERATED WETLAND FOR COMBINED SEWER OVERFLOW UPSTREAM THE WWTP OF MERONE (IT)

Riccardo Bresciani, Italy

FORCED AERATION IN A VERTICAL FLOW WETLAND TO TREAT COMBINED SEWER OVERFLOW

Daniella Portela, France

LIMESTONE FOR RE-CARBONATION OF TREATMENT WETLANDS FOR COMBINED SEWER OVERFLOWS

Julia Storath, Germany

Coffee & posters

15:40 - 16:00

16:00 - 16:20

16:20 - 16:40

16:40 - 17:00

17:00 - 18:30

Interreg project Aquatuur
start meeting



Vertical flow wetlands I (Chair: Hana Brunthoferova)
RED CERAMIC, AUTOCLAVED AERATED CONCRETE AND CHEMICALLY ACTIVATED AERATED CONCRETE AS NOVEL MATERIALS FOR VERTICAL SUB-SUPERFICIAL CONSTRUCTED WETLANDS TREATING SYNTHETIC EFFLUENT

Karina De Canelho, Brazil

INTEGRATING CIRCULAR ECONOMY AND BIODIVERSITY IN UPGRADING CONSTRUCTED WETLANDS (LIFE RENATURWAT)

Carmen Hernandez Crespo & Nùria Oliver, Spain

PERFORMANCE EVALUATION OF OPERATIONAL CHANGES IN MODIFIED VERTICAL FLOW TREATMENT WETLANDS WITH ORNAMENTAL PLANTS UNDER ARID CONDITIONS

Ismael Vera-Puerto, Chile

DECENTRALISED WASTEWATER TREATMENT AND WATER REUSE FOR REGIONS WITH SEASONAL DROUGHT STRESS

Jan Schütz, Germany

Microplastics II (Chair: Qintong Wang)
FATE OF MICROPLASTICS IN A FREE-WATER SURFACE CONSTRUCTED WETLAND - REMOVAL, MICROBIAL COLONIZATION AND ANTIMICROBIAL RESISTANCE (AMR)

Jannis Wenk, UK

MICROPLASTICS OCCURRENCE, CHARACTERIZATION, AND REMOVAL IN FULL-SCALE COMBINED SEWER OVERFLOW-CONSTRUCTED WETLAND SYSTEMS UPSTREAM CENTRALIZED WASTEWATER TREATMENT PLANTS

Chiara Sarti, Italy

DO MICROPLASTICS IMPACT THE TREATMENT EFFICIENCY OF POLLUTANTS IN CONSTRUCTED WETLANDS?

Saurabh Dwivedi, India

Microbial ecology (Chair: Otto Stein)
GREY WATER AN ISSUE IN URBAN SLUMS – MICROBIAL COMMUNITY

Uwe Kappelmeyer, Germany

NOVEL LIGHTWEIGHT SUBSTRATE IN CONSTRUCTED WETLAND FOR DOMESTIC WASTEWATER TREATMENT: PREPARATION, PERFORMANCE AND MICROORGANISM COMMUNITY

Ting Wei, China

MICROBIAL COMMUNITY DYNAMICS IN A COLD CLIMATE TREATMENT WETLAND

Stephanie Ayotte, USA

Posters & drinks

08:30 - 09:00

Registration & Coffee

Antibiotics removal & antimicrobial resistance (Chair: Pedro Carvalho)

THE UK'S EFFORTS TO UNDERSTAND AND TACKLE ANTIMICROBIAL RESISTANCE (AMR): THE ROLE OF NATURE-BASED SOLUTIONS

Tao Lyu, UK

ANTIBIOTICS AND MICROBIAL COMMUNITY DYNAMICS IN ESTUARINE ECOSYSTEMS AND WETLANDS (SALTMARSHES) ROLE IN POLLUTANTS REMOVAL

Marisa Almeida, Portugal

REMOVAL OF ENROFLOXACIN USING EICHHORNIA CRASSIPES IN WETLANDS AT MICROCOSM SCALE

Maria Maine, Argentina

A REVIEW ON ANTIBIOTICS REMOVAL: COMBINING GREY PROCESSES WITH GREEN PROCESS/CONSTRUCTED WETLAND

Peiyang Kang, China

Intensification (Chair: Dion van Oirschot)

NITRIFICATION AND DENITRIFICATION IN TAVA, A FILL AND DRAIN CONSTRUCTED WETLAND

Keren Aizenberg, Israel

RHZOSPFAIR – A SINGLE STAGE “FRENCH” TREATMENT WETLANDS FOR NITROGEN REMOVAL: 2-YEARS MONITORING OF INDUSTRIAL-SCALE PILOTS

Alain Petitjean, France

PRACTICAL EXAMPLES OF AERATED TREATMENT WETLANDS IN THE CZECH REPUBLIC

Vit Rous, Czech Republic

INTEXT PLATFORM: INNOVATIVE HYBRID INTENSIVE – EXTENSIVE TECHNOLOGIES FOR WASTEWATER TREATMENT IN SMALL COMMUNITIES.

Rubén Hervás, Spain

HYBRID CONSTRUCTED WETLANDS FOR THE TREATMENT OF FLORICULTURE DRAINAGE WATER

Flor Louage, Belgium

Non-point source pollution I (Chair: Marco Hartl)

FAVOURABILITY MAPS FOR PLANNING NATURE-BASED SOLUTIONS FOR AGRICULTURAL WATER MANAGEMENT IN EUROPE

Fabio Masi, Italy

USING SMALL RIPARIAN WETLANDS FOR SURFACE WATER PURIFICATION: EFFECT ON WATER NUTRIENT CONCENTRATION AND BIOFILM FUNCTION

Anne-Kirstine Dybdahl, Denmark

ADDRESSING NUTRIENT REMOVAL FROM AGRICULTURAL RUNOFF AND SUBSURFACE DRAINAGE USING TWO PILOT NATURE-BASED SOLUTIONS, AUSTRIA

Eriona Canga, Austria

ARE RIPARIAN BUFFER STRIPS EFFECTIVE FOR NUTRIENT RETENTION UNDER COLD FROZEN CONDITIONS?

Mathieu Kumwimba, China

IMPROVING THE RISK ASSESSMENT OF PHOSPHORUS LOSS FROM REVETTED RIPARIAN WETLANDS IN DENMARK

Dominik Zak, Denmark

Resource recovery & pathogen removal (Chair: Gabriela Dotro)

ASSESSING THE EFFECTIVENESS OF CONSTRUCTED WETLAND-DERIVED SLUDGE AS BIOFERTILIZER

Ana Cano, Spain

APPLICATION OF CONSTRUCTED WETLAND-DERIVED COMPOST: ASSESSMENT OF THE CIRCULARITY POTENTIAL

Francesco Chioggia, Italy

EFFECT OF GRANULOMETRY AND LOADING RATE IN VERTICAL SAND BED FILTER FOR PATHOGEN REMOVAL OF MUNICIPAL WASTEWATER

Mayang Perdana, Czech Republic

NUTRIENTS RECOVERY AND PATHOGEN REMOVAL FOR WASTEWATER REUSE COMBINING MICROALGAE AND CONSTRUCTED WETLAND SYSTEMS

Enrique Lara, Spain

ELECTROCHEMICAL DISINFECTION SYSTEMS FOR WATER RECLAMATION FROM CONSTRUCTED WETLAND EFFLUENTS

Suanny Mosquera-Romero, Ecuador

09:00 - 09:20

09:20 - 09:40

09:40 - 10:00

10:00 - 10:20

10:20 - 10:40

10:40 - 11:10

Coffee & Posters

Antibiotics & pharmaceuticals removal (Chair: Huma Ilyas)

NATURE-BASED SOLUTIONS TO REDUCE ANTIBIOTICS AND ANTIMICROBIAL RESISTANCE IN AQUATIC ECOSYSTEMS

Victor Matamoros, Spain

INNOVATIVE HYBRID INTENSIVE – EXTENSIVE RESOURCE RECOVERY FROM WASTEWATER IN SMALL COMMUNITIES

Cristina Avila, Spain

TREATMENT WETLANDS FOR CONTROLLING WASTEWATER-BORN ANTIBIOTIC EMISSIONS

Pedro Carvalho, Denmark

Biochar (Chair: Asheesh Yadav)

BIOCHAR FROM RECOVERED CELLULOSE AS NEW SUBSTRATE FOR MICROPOLLUTANT REMOVAL IN A CIRCULAR ECONOMY PERSPECTIVE

Joachim Hansen, Luxembourg

ASSESSMENT OF AGING BIOCHAR PROPERTIES IN CONSTRUCTED WETLANDS

Hafiz Khan, Belgium

IMMOBILIZATION OF CHROMIUM ENHANCED BY ARBUSCULAR MYCORRHIZAL FUNGI IN SEMI-AQUATIC HABITATS WITH BIOCHAR ADDITION

Zhongbing Chen, Czech Republic

REMOVAL MECHANISMS OF PERSISTENT ORGANIC POLLUTANTS BY BIOCHAR AND ITS POTENTIAL APPLICATION IN CONSTRUCTED WETLANDS

Jingyu Wang, Denmark

Non-point source pollution II (Chair: Birgit De Bock)

VERTECO® RAFT – LAB-SCALE AND PROTOTYPE TESTING AND DEVELOPMENT OF A FLOATING WETLAND SYSTEM TO MITIGATE EUTROPHICATION IN THE BALTIC SEA

Marco Hartl, Austria

PILOT SCALE OPTIMISATION OF FLOATING TREATMENT WETLAND DESIGN FOR CLEANING OF THE WATER CHANNELS OF HO CHI MINH CITY

Piet Lens, Ireland

EAST FORK WETLAND: LESSONS LEARNED FROM 14 YEARS OPERATION OF A 745-HA TREATMENT MARSH

Tim Noack, USA

CONSTRUCTED WETLANDS FOR THE REMEDIATION OF CYANOTOXINS: A STORY OF BACTERIA, FUNGI AND TRANSFORMATION PRODUCTS

Alba Martinez, Denmark

Other wetland applications (Chair: Fabio Masi)

OPTIMIZING SEWAGE SLUDGE DEWATERING USING CONSTRUCTED WETLANDS: A LARGE EXPERIMENTAL STUDY IN GREECE

Alexandros Stefanakis, Greece

ASSESSMENT OF BASIC PROCESSES AND BACTERIAL COMMUNITY IN RED BED SYSTEMS FOR BEACH WRACK TREATMENT

Alicja Kupczyk, Poland

ASSESSMENT OF WATER BALANCES IN RE-DESIGNED ZERO DISCHARGE WILLOW EVAPOTRANSPIRATION SYSTEMS FOR TREATING DOMESTIC WASTEWATER IN AREAS WITH LOW PERMEABILITY SOILS

Laurence Gill, Ireland

FIRST EXPERIENCES WITH NATURAL TREATMENT BASED ON WILLOWS FOR CONCENTRATE OF REVERSE OSMOSIS

Thomas Rogier, Belgium

12:30 - 13:40

Lunch & posters

13:40 - 14:00	Natural wetlands, restoration & maintenance (Chair: Suzanne Lettens) TIDAL MARSH RESTORATION ON SAPELO ISLAND: A LEGACY OF R.J. REYNOLDS, JR., EUGENE ODOM AND THE UNIVERSITY OF GEORGIA MARINE INSTITUTE <i>Christopher Craft, USA</i>	Post-treatment (Chair: Flor Louage) LONG-TERM MONITORING OF TWO FULL-SCALE WETLANDS POLISHING URBAN WASTEWATER TREATMENT PLANT EFFLUENTS <i>Giuseppe Mancuso, Italy</i>	Non-point source pollution III (Chair: Karin Tonderst) CARBON AND NUTRIENT SEQUESTRATION IN NATURAL WETLANDS FED BY AGRICULTURAL RUNOFF AND DRAINAGE <i>Jan Vymazal, Czech Republic</i>	Vertical flow wetlands II (Chair: Magda Gajewska) INFLUENCE OF MEDIA SIZE AND PLANT SPECIES ON NITRIFICATION IN UNSATURATED VERTICAL FLOW WETLANDS <i>Christopher Allen, USA</i>
14:00 - 14:20	TRACKING COASTAL WETLAND AREA CHANGE INTEGRATING REMOTE SENSING WITH FIELD-BASED MEASUREMENTS	NATURE-BASED HYBRID SOLUTIONS TO REMOVE NITROGEN FROM MUNICIPAL WASTEWATER IN ARCTIC REGIONS	ASATURATED BUFFER ZONE AS COST-EFFECTIVE NATURE-BASED SOLUTION TO MITIGATE THE AGRICULTURAL NUTRIENT POLLUTION OF STREAMS IN DENMARK <i>Dominik Zak, Denmark</i>	THE USE OF VERTICAL FLOW CONSTRUCTED WETLANDS TO PHOSPHORUS AND NITROGEN REMOVAL FROM DOMESTIC WASTEWATER
14:20 - 14:40	<i>John White, USA</i> ENVIRONMENTAL CONDITIONS MEDIATING DECOMPOSITION AND NUTRIENT RELEASE IN FORESTED PEATLANDS	<i>Heini Postila, Finland</i> CONSTRUCTED WETLANDS TO REDUCE FIRST FLUSH AMMONIUM PEAKS IN WASTEWATER TREATMENT PLANT EFFLUENT: AN EXPLORATORY STUDY	ENHANCED DENITRIFICATION IN A CONSTRUCTED WETLAND BY RESHAPING SEDIMENT / WATER COLUMN INTERFACE: CHALLENGES WITH UPSCALING <i>Julien Tournebise, France</i>	PARTIAL SIPHON OPERATIONAL STRATEGY STRENGTHENS THE NITROGEN REMOVAL PERFORMANCE THROUGH INTENSIFIED OXYGEN SUPPLY AND CARBON UTILIZATION ABILITY IN PARTIALLY SATURATED VERTICAL FLOW WETLAND <i>Shangwu Zuo, China</i>
14:40 - 15:00	<i>Lipe Mendes, Ireland</i> MAINTENANCE OF OXIDATION PONDS FOR WASTEWATER TREATMENT IN KENYA - CAN IT BE MADE EASIER BY USE OF AMPHIBIAN TRACTORS?	<i>Joost van den Bulk, The Netherlands</i> THE ROLE OF TREATMENT WETLANDS IN POTABLE WATER REUSE	ASSESSMENT OF NUTRIENT ACCUMULATION AND TRANSLOCATION IN PLANT BIOMASS IN A MATURE FREE-WATER SURFACE TREATMENT WETLAND MITIGATING DIFFUSE AGRICULTURAL POLLUTION <i>Margit Koiv-Vainik, Estonia</i>	ADAPTING VERTICAL-FLOW CONSTRUCTED WETLANDS FOR ON-DEMAND NUTRIENT REMOVAL FROM GREYWATER <i>Carlo Morandi, Germany</i>
15:00 - 15:20	<i>Ruud Kampf, The Netherlands</i> REMOVAL OF NITROGEN AND EMERGENT POLLUTANTS FROM MUNICIPAL WASTEWATER WITH WOODCHIP BIOREACTORS <i>Matthew Hopkins, Finland</i>	<i>Rafael Vazquez-Burney, USA</i> REMOVAL OF NITROGEN AND EMERGENT POLLUTANTS FROM MUNICIPAL WASTEWATER WITH WOODCHIP BIOREACTORS	HYDRAULIC FLOW GRADIENTS AND PLANT-BED/DITCH SYSTEM IN FOUR CONSTRUCTED ROOT CHANNEL WETLANDS <i>Weidong Wang, China</i>	TWO-STAGE VERTICAL FLOW TREATMENT WETLAND USING OPERATIONAL CONTROLS <i>Otto Stein, USA</i>
15:20 - 15:50				

Coffee & Posters

15:50 - 16:10	PPCP removal (Chair: Maria Alejandra Maíne) CONSTRUCTED WETLANDS FOR REMOVAL OF MICROPOLLUTANTS FROM WASTEWATER TREATMENT PLANT EFFLUENT: AN EXPLORATORY STUDY <i>Joost van den Bulk, The Netherlands</i>	Modelling (Chair: Nicolas Forquet) AUTOMATICALLY OPTIMIZING THE SIZING OF A WASTEWATER TREATMENT WETLAND CHAIN - CASE STUDY OF THE FRENCH SYSTEM <i>Zoé Legat, France</i>	Bio-electrochemical systems (Chair: Carlos Arias) BOOSTING ELECTRIC VOLTAGE AND POWERING AN UV LAMP FOR EFFLUENT DISINFECTION IN A ELECTRO-WETLAND SYSTEM <i>Yaqian Zhao, China</i>	Vertical flow wetlands III (Chair: Jan Vymazal) MODIFIED PLASTERBOARD SHEET WASTE FROM THE CIVIL CONSTRUCTION INDUSTRY AS SUBSTRATE IN VERTICAL-FLOW CONSTRUCTED WETLAND <i>Karina De Carvalho, Brazil</i>
16:10 - 16:30	ASSESSING AND MONITORING WETLAND EFFICIENCY WITH MINIATURISED BIOASSAYS - DOES THE SORPTION OF LIPOPHILIC SUBSTANCES TO PLASTIC MICROTITTER PLATES CONFOUND RESULTS ? <i>Eberhard Küster, Germany</i>	USING NUMERICAL EXPERIMENTS TO DETERMINE THE INFLUENCE OF DESIGN PARAMETERS ON THE PERFORMANCE OF VERTICAL FLOW WETLANDS <i>Bernhard Pucher, Austria</i>	EVALUATING THE IMPACT OF SEASONAL CHANGES IN TEMPERATURE ON SECONDARY WETLAND TREATMENT PERFORMANCE <i>Gabriela Dotro, UK</i>	FUNCTIONS OF THE SUCCESSIVE STAGES OF VERTICAL FLOW TREATMENT WETLANDS BASED ON BIOTIC AND ABIOTIC SOLID/LIQUID INTERACTIONS <i>Mathieu Gautier, France</i>
16:30 - 16:50	ORGANIC MICROPOLLUTANTS ON MULTISOURCE PILOTS: RESULTS FROM A NON-TARGET SCREENING ANALYSIS <i>Valdotas Kisielius, Denmark</i>	HYDRAULIC CHARACTERIZATION IN A HYBRID AERATED VERTICAL FLOW-HORIZONTAL FLOW TREATMENT WETLAND <i>Caroline Miyazaki, France</i>	MICROBIAL ELECTROCHEMICAL TECHNOLOGY CONSTRUCTED WETLAND FOR MUNICIPAL WASTEWATER TREATMENT <i>Elisangela Heiderscheidt, Finland</i>	FULL SCALE CONSTRUCTED WETLAND WITH NOVEL POST-TREATMENT STEP AND CONTINUOUS MONITORING, AS ALTERNATIVE FOR SEWERAGE IN RURAL FLANDERS <i>Jente Leys, Belgium</i>
16:50 - 17:10	DEGRADATION AND TRANSFORMATION OF E2-3S IN HORIZONTAL FLOW CONSTRUCTED WETLAND <i>Ting Wei, China</i>	MODELLING OF ARSENIC REMOVAL, FATE AND DISTRIBUTION IN SUBSURFACE FLOW CONSTRUCTED WETLANDS: PRELIMINARY RESULTS USING A PROCESS-BASED TOOL <i>Diego Bravo-Riquelme, Chile</i>	A DECADE OF ELECTROACTIVE CONSTRUCTED WETLANDS - ACHIEVEMENTS AND THE WAY FORWARD <i>Asheesh Yadav, India</i>	5 YEARS OF PERFORMANCE OF A NOVEL DESIGN INVOLVING VERTICAL AND HORIZONTAL FLOW CONSTRUCTED WETLANDS FOR SEWAGE TREATMENT IN INDIA <i>Nadeem Khalil, India</i>
17:15 - 18:15	YWP event <i>Nadine Sossalla, Norway & Marco Hartl, Austria</i>			
19:00 - ...				

Conference dinner @ Brewery De Halve Maan (Address: Walplein 26, Bruges)

Wednesday 13 Sept
FIELD TRIPS: see separate program
buses are leaving from the Bargeplein (Kattelijparking) along the Bargeweg in Bruges !!

08:30 - 09:00							Registration & Coffee
09:00 - 09:20	SUDS I (Chair: Mireille Martens)	Green roofs & walls & greywater treatment (Chair: Tamara Avelian)	Micropollutants removal (Chair: Jaime Nivala)	Special wastewaters (Chair: Yaqian Zhao)			
09:20 - 09:40	MULTISTAGE CONSTRUCTED WETLAND FOR WATER PROTECTION AGAINST URBAN DRAINAGE POLLUTION	GUIDELINES FOR DESIGNING GREEN ROOFS AND GREEN WALLS FOR GREYWATER TREATMENT AND REUSE	PERFORMANCE OF ARTIFICIAL WETLAND TO REDUCE PESTICIDE FLOWS: A REVIEW OF 10 YEARS OF MONITORING COUPLING MESOCOSM AND FIELD RESULTS.	SET-UP AND PERFORMANCE OF A CONSTRUCTED WETLAND SYSTEM TO IMPROVE LANDFILL LEACHATE MANAGEMENT CONTAINING PFAAS IN A CONVENTIONAL WASTEWATER TREATMENT PLANT			
	<i>Magdalena Gajewska, Poland</i>	<i>Fabio Masi, Italy</i>	<i>Julien Tournebize, France</i>	<i>Nicola Celadon, Italy</i>			
09:40 - 10:00	WHERE TREATMENT WETLAND KNOWLEDGE MEETS SUSTAINABLE DRAINAGE SYSTEM ? AN OVERVIEW ON DESIGN LINKS AND FUTURE RESEARCH TRENDS	VERTICAL GREENING SYSTEMS AS MULTIFUNCTIONAL SYSTEMS FOR URBAN WATER TREATMENT REUSE AND CIRCULARITY	PERFORMANCE OF CONSTRUCTED WETLANDS FOR THE REMOVAL OF PERSONAL CARE PRODUCTS	IMPLEMENTATION OF LANDFILL LEACHATE TREATMENT WITH NATURE-BASED SOLUTIONS: LIFE GREEN ADAPT PROJECT			
	<i>Anacleto Rizzo, Italy</i>	<i>Bernhard Pucher, Austria</i>	<i>Huma Ilyas, Belgium</i>	<i>Luz Herrero, Spain</i>			
10:00 - 10:20	POLLUTANT REMOVAL IN BIOSWALES	VERTECO® - VERTICAL GREEN WALL SYSTEM DEMONSTRATION FOR DOMESTIC WASTEWATER TREATMENT AND ON-SITE WATER AND NUTRIENT REUSE	PESTICIDE IN PONDS AND AT THE CATCHMENT SCALE	CARBAMAZEPINE AND DICLOFENAC REMOVAL FROM REAL INDUSTRIAL WASTEWATER USING HYBRID CONSTRUCTED WETLAND: PILOT STUDY			
	<i>Emil Jespersen, Denmark</i>	<i>Marco Hartl, Austria</i>	<i>Julien Tournebize, France</i>	<i>Othman Al-Mashaqbeh, Jordan</i>			
10:20 - 10:50	QUALITATIVE AND QUANTITATIVE ASSESSMENT OF NATURE-BASED SOLUTIONS TO TACKLE URBAN STORMWATER	NATURE-BASED SOLUTIONS FOR GREYWATER REUSE TO REDUCE THE CONSUMPTION OF DRINKING WATER: THE POTENTIAL FOR PUBLIC BUILDINGS IN LUXEMBOURG	EMERGING CONTAMINANT BEHAVIOUR WITHIN A FULL-SCALE FREE WATER SURFACE CONSTRUCTED WETLAND	COAL MINE DRAINAGE IN FULL-SCALE LAGOONS			
	<i>Loïc Maurer, France</i>	<i>Silvia Venditti, Luxembourg</i>	<i>Emma Vaughan, UK</i>	<i>Oluwanisola Okeleji, UK</i>			

Coffee & Posters

10:50 - 11:10	SUDS II (Chair: Mathieu Gautier)	LCA & sustainability (Chair: Alexandros Stefanakis)	Role of plants & hydraulics (Chair: Maurizio Borin)	Greenhouse gases & sequestration (Chair: Ülo Mander)			
11:10 - 11:30	TREATMENT CAPACITY OF ENHANCED RAIN GARDEN – CASE STUDY IN GDANSK	A WHOLELIFE COST AND CARBON PERSPECTIVE OF ALTERNATIVES TO SEPTIC TANKS UTILISING AEROBIC WETLANDS	NATIVE CANADIAN PLANTS TO PHYTOREMEDIATE TRICLOSAN IN CONSTRUCTED WETLANDS	GREENHOUSE GAS EMISSIONS FROM A COLD-CLIMATE TREATMENT WETLAND			
11:30 - 11:50	PREFERENTIAL FLOW IN PARTIALLY SATURATED TREATMENT WETLAND AND ITS IMPACT ON POLLUTANT RESIDENCE TIME	RAPID ASSESSMENT FOR SUSTAINABLE SUITABILITY OF CONSTRUCTED WETLANDS	BENEFITS OF THE PRESENCE OF PLANTS IN WETLAND+ SYSTEM, TREATING HIGH POLLUTED SITES.	COMPARING ANALYSIS OF CARBON SINKS EFFECTS BETWEEN CONSTRUCTED WETLANDS AND NATURAL WETLANDS			
	<i>Magdalena Gajewska, Poland</i>	<i>Gabriela Dotro, UK</i>	<i>Laurianne Bedard, Canada</i>	<i>Stephanie Ayotte, USA</i>			
11:50 - 12:10	THE ROLE OF NATURE-BASED SOLUTIONS FOR THE WATER FLOW MANAGEMENT IN A MEDITERRANEAN URBAN AREA	TAMARA AVELIAN, FINLAND SURVEY ON SOCIO-ECONOMIC IMPACT OF THE WETLAND+® TECHNOLOGY FOR TREATMENT OF HIGH-CONTAMINATED WATER	CARLOS ARIAS, DENMARK EFFICIENCY OF HORIZONTAL MACROPHYTIC PONDS WITH PHRAGMITES AUSTRALIS AND ITS INFLUENCE ON THE POLLUTANTS ASSIMILATION BY THE PLANTS	LEI YANG, TAIWAN MICROPOLLUTANT REMOVAL AND MICROBIAL COMMUNITY DYNAMICS OF A 3-YEAR OLD CONSTRUCTED WETLAND WITH ADSORPTION SUBSTRATE			
	<i>Ania Morvammou, France</i>	<i>Tamara Avelian, Finland</i>	<i>Renata Ferreira, Portugal</i>	<i>Thomas Wagner, The Netherlands</i>			
12:10 - 13:40	CIRCULAR URBAN WATER SOLUTIONS WITH NATURE-BASED SOLUTIONS: URBAN REAL LABS IN SPAIN	LIFE CYCLE ASSESSMENT OF ENHANCED CONSTRUCTED WETLANDS FOR MICROPOLLUTANT REMOVAL FROM MUNICIPAL EFFLUENT	SIMULATION OF THE HYDRAULIC BEHAVIOUR OF A TREATMENT WETLAND IN THE MEDITERRANEAN AREA USING HYDRUS	PERFORMANCE OF FLOATING TREATMENT WETLANDS IN PONDS WITH HIGH EUTROPHIC LEVEL DURING DIFFERENT SEASONS OF THE YEAR			
	<i>Liviana Scuto, Italy</i>	<i>Pavla Svermova, Czech Republic</i>	<i>Feliciana Licciardello, Italy</i>	<i>Eusebia Olguin, México</i>			
	<i>Rubén Hervás, Spain</i>	<i>Hana Brunhoferova, Ireland</i>					

Lunch

Thursday 14 Sept

AUDITORIUM A (1st FLOOR)

AUDITORIUM B (1st FLOOR)

ROOMS 1+2 (3rd FLOOR)

ROOMS 4+5 (3rd FLOOR)

CATERING ROOM (4th FLOOR)

13:40 - 14:20

Plenary session III (Chair: Gijs Du Laing)
KEYNOTE: ARE WETLANDS A SOURCE OR SINK OF GREENHOUSE GASES?

[Ülo Mander, Estonia](#)

14:20 - 15:00

KEYNOTE: TREATMENT WETLANDS 3rd EDITION
[Jaime Nivala, France](#)

15:00 - 15:30

Coffee

15:30 - 16:10

Plenary session IV (Chair: Diederik Rousseau)
KEYNOTE: MAKING THE BUSINESS CASE FOR NATURE-BASED SOLUTIONS

[France Guertin, USA](#)

16:10 - 16:45

AWARDS AND CONFERENCE CLOSING SESSION
[WETPOL OC](#)

List of poster contributions

The posters are continuously on display in the catering hall on the 4th floor, up to and including the morning coffee break on Thursday 14 September. Afterwards all posters have to be removed.

On Monday 11 September, there is a dedicated poster session with drinks, from 17:00 until 18:30.

#	Presenter	Country	Poster title
1	Guna Bavithra	Portugal	TESTING LOCAL AGRO-WASTE MATERIALS AS SUBSTRATE CANDIDATES FOR CONSTRUCTED WETLANDS TREATING CYANOTOXIN CONTAMINATED WATER
2	Alisson Borges	Brazil	AUXIN AND GIBBERELIN AMMENDMENT FOR FLUORIDE PHYTOREMEDIATION: A SCREENING STUDY
3	Alisson Borges	Brazil	CONSTRUCTED WETLANDS FOR WATER DEFLUORIDATION
4	Nathan Bourke	Ireland	THE EFFECTS OF LEAD/ZINC MINE WASTEWATER ON MACROPHYTE STRESS
5	Yamei Cai	P.R. China	SCENARIO ANALYSIS OF MICROPLASTICS FLOW IN CONSTRUCTED WETLAND
6	Oyku Comez	Czech Republic	THE IMPACT OF BIOFILTER MEDIA ADDITIVE AND IRRIGATION METHOD ON THE REMOVAL PERFORMANCE FOR MICROPOLLUTANTS FROM LIGHT GREYWATER
7	Elisa Costamagna	Italy	CONSTRUCTED WETLANDS HYDRODYNAMIC MODELLING FOR ENZYMATIC ACTIVITY ANALYSIS
8	Gisela Di Luca	Argentina	PERFORMANCE OF CANNA INDICA FLOATING TREATMENT WETLANDS IN THE REMOVAL OF CR SPECIES
9	Natalia Donoso	Ecuador	SWOT ANALYSIS FOR THE IMPLEMENTATION OF CONSTRUCTED WETLANDS TREATING COFFEE PROCESSING WASTEWATER IN ECUADOR
10	Vittoria Giannini	Italy	WATER REQUIREMENTS AND SAP FLOW SPEED IN POPLAR PLANTATION UNDER DIFFERENT AGRONOMIC MANAGERMENTS
11	Hernan Haddad	Argentina	ROOT MORPHOMETRICAL RESPONSE IN PLANTS GROWING IN A WETLAND CONSTRUCTED FOR THE TREATMENT OF A METALLURGICAL EFFLUENT
12	Marco Hartl	Austria	DIVAGRI - MULTIFUNCTIONAL CONSTRUCTED WETLANDS WITH A FOCUS ON PRODUCTIVE PLANTS FOR FURTHER VALORISATION IN SEVEN AFRICAN PILOT SITES
13	Perry Hoendervangers	Belgium	BENCHMARKING AND THE INTEGRATION OF NATURE-BASED SOLUTIONS AND ENGINEERED TECHNOLOGIES FOR ENHANCED PESTICIDE REMOVAL
14	Ashlene Hudson	Ireland	MICROBIAL COMMUNITY AND SEDIMENT QUALITY OF A CONSTRUCTED WETLAND TREATING ALKALINE LEACHATE AFTER 5.5 YEARS OPERATION
15	Peiyong Kang	P.R. China	THE OCCURRENCE AND TOXICITY OF EMERGING CONTAMINANTS AND THEIR REMOVAL USING CONSTRUCTED WETLANDS: A REVIEW

#	Presenter	Country	Poster title
16	Vladimir León	Peru	ACID ROCK DRAINAGE REMEDIATION WITH CONSTRUCTED WETLANDS IN ANCASH HIGHLANDS - PERÚ
17	Maria Maine	Argentina	CONSTRUCTED WETLANDS FOR FINAL POLISHING OF SLAUGHTERHOUSE EFFLUENT
18	Adrian Martinez	Spain	ASSESSMENT OF SURFACE FLOW ARTIFICIAL WETLANDS IN THE CONTROL OF POLLUTION FROM URBAN RUNOFF IN L'ALBUFERA DE VALENCIA NATURAL PARK.
19	Lipe Mendes	Ireland	RECOVERY OF WATER QUALITY FROM DRAINED FORESTED PEATLANDS WITH BIOCHAR
20	Mercedes Mufarrege	Argentina	ROOT MORPHOMETRY AND TOLERANCE OF CANNA INDICA IN FLOATING TREATMENT WETLANDS FOR CR(III) AND CR(VI) REMOVAL
21	Fernanda Muniz Sacco	Luxembourg	PERSONAL CARE PRODUCTS REMOVAL FROM GREYWATER USING NATURE-BASED SOLUTIONS FOR WATER REUSE IN SUSTAINABLE BUILDINGS: THE "RE CARE" PROJECT APPROACH
22	Emanuel Nocetti	Argentina	COMPARISON OF HYBRID WETLAND ARRANGEMENTS FOR DAIRY WASTEWATER TREATMENT
23	Eugenia Olguín	México	FLOATING TREATMENT WETLANDS, COMPOSED OF Pontederia sagittata AND Cyperus papyrus, FOR THE REMOVAL OF MICROPLASTICS IN TWO URBAN PONDS
24	Dee Philips	UK	WASTEWATER TREATMENT AND GREENHOUSE GAS EMISSIONS: HERBACEOUS VS WOODY HORIZONTAL CONSTRUCTED WETLANDS
25	Pau Porras	Portugal	THE ROLE OF SPARGANIUM ERECTUM, SUBSTRATES AND MICROORGANISMS IN CONSTRUCTED WETLANDS TREATING ANAEROBIC DIGESTION EFFLUENTS
26	Tongxin Ren	Czech Republic	PARTIALLY-SATURATED CONSTRUCTED WETLANDS AS PERFORMANCE ALL-ROUNDERS FOR THE REMOVAL OF HOUSEHOLD MICROPOLLUTANTS
27	Ailen Soto	Portugal	VERTICAL FLOW CONSTRUCTED WETLANDS FOR ANAEROBIC DIGESTATE SAFE REUSE: MICROPLASTICS, METALS AND PATHOGENS REMOVAL, FATE AND PERSISTANCE
28	Joana Strycharz	Poland	REMOVAL OF ORGANICS AND NUTRIENTS IN FLOATING TREATMENT WETLANDS COMBINED WITH MICROBIAL FUEL CELLS UNDER DIFFERENT ORGANIC LOADING RATES
29	Ewa Wojciechowska	Poland	STRAW AND WOOD BIOCHAR APPLICATION TO MARGINAL SOIL FOR MISCANTHUS GIGANTEUS ENERGY BIOMASS PRODUCTION: A POT SCALE STUDY

FIELD TRIPS – PRACTICAL INFORMATION

All field trips will leave from the Bargeplein (Katelijnparking) along the Bargeweg in Bruges. This is a 20-25 minute walk away from the conference venue!

Below you can find a map indicating the tour, and an indicative timing. Please respect the departure time and be at least 15 minutes before departure present at the bus parking!

A packed lunch will be provided by the conference. Further information about the visits will be provided on the bus and on the sites.

<p>FIELDTRIP 1</p> 	<ul style="list-style-type: none"> ● 08:30: departure ● 10:30 – 12:30: visit Kamp C green wall & lunch ● 14:00 – 15:30: visit Microflor CWs ● 16:00 – 17:30: visit Aquafin CWs ● 18:30: estimated arrival Bruges
<p>FIELDTRIP 2</p> 	<ul style="list-style-type: none"> ● 09:00: departure ● 10:00 – 12:30: visit de Blankaart & lunch ● 13:00 – 15:00: visit IWVA ● 16:00: estimated arrival Bruges
<p>FIELDTRIP 3</p> 	<ul style="list-style-type: none"> ● 09:00: departure ● 10:00 – 13:00: visit het Zwin & lunch ● 14:00 – 16:00: visit CWs DOW/Evides ● 17:00: estimated arrival Bruges

