Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
MONDAY, 20 May							
08:30 – 17:00	Pre-courses						
TUESDAY, 21 May							
09:00 – 10:30	Opening Session / Welcome / Keynote lectures in the Auditorium						
10:30 – 11:00	Coffee break						
11:00 – 12:30	3d1 Policy strategies of environmental concerns of emerging contaminations (1)	7a2 Sustainable soil management	4b1 Thermal treatment (1)	2d1 Ecological indicators for the assessment of soil quality and recovery	6a1 Valuation of soil-sediment-water systems	4a8 Advances in chemical remediation of heavy metal-polluted sites	
TUESDAY	**Chair:** **Dietmar Mueller-Grabherr**	**Chair:** **Richard Lord**	**Chair:** **Jan Haemers**	**Chair:** **Fred Coulon**	**Chair:** **Jenny Norrman**	**Chair:** **Wouter Gevaerts**	
	<u>Keynote:</u> Griet van Gestel | OVAM | Belgium: Policy on diffuse soil contamination and emerging contaminants: new sounds from Flanders	*Arense Nordentoft, Susanne Arentoft | Region Midtjylland | Denmark:* Sutainable soil management	*Quentin Hilbert | Haemers Technologies | Belgium:* Thermal Desorption of Highly-impacted mercury soils in an Urban Area	*Dan Berggren Kleja | Swedish Geotechnical Institute | Sweden* : A Triad based framework for ecological risk assessment (ERA) that accounts for inherent soil quality effects	*Inge Liekens | VITO | Belgium*: The Nature Value explorer: valuing the benefits of green and blue infrastructure.	*Yu Ting | National Taiwan University:* Reduction of aqueous mercury in contaminated sediment by activated carbon/clay-based active caps: a microcosm study with the horizontal flow and artificial turbation	
		Hans Bengtsson | Ramboll | Denmark: Sustainable conversion of a former sewage plant to "liveable nature". A new recreational industrial landscape	*Søren Eriksen | Krüger A/S | Denmark:* Pilot scale "in pile" thermal desorption remediation of mercury and mixed pesticides contaminated soil	*Frederic Coulon | Cranfield University | UK*: Linking bioavailability of complex chemical mixtures to toxicity changes to assess recovery of multi-contaminated soils	*Hans Slenders | Arcadis Netherlands | Netherlands:* LAND STEWARDSHIP, Investing in the Natural, Societal and Economical capital of Industrial Land	*Rosa Soria | The University of Sheffield | UK:* Biochar properties influence heavy metal immobilization on polluted soils and plant growth	
	Michiel Gadella | Rijkswaterstaat | NL: PFAS: a stress test for Sustainable soil management in the Netherlands	*Ellen Brand | RIVM | Netherlands:* Reuse of thermally-cleaned soil and tarmac granulate: health, environment and public emotions	*Gavin Grant | Savron | Canada:* Smouldering Combustion (STAR): Meeting Remedial Goals in Complex Environments	*Vyshal Delahaut | University of Antwerp | Belgium:* Mercury transfer through the food web of the three-spined stickleback (Gasterosteus aculeatus)	*Suzanne van der Meulen | Wageningen University and Deltares:* Towards multifunctional urban surface water: understanding current and future surface water uses	*Andrew Thomas | KIT | Germany:* Hexavalent Chromium Remediation by Green Rust Sulfate: How µm-Scale Structure of Reaction Byproducts can be Used to Evaluate Stability	
	Bart Meyns |Sertius|Belgium: Towards a remedial action plan for PFAS in soil and groundwater at an industrial site in Antwerp: results on research for treatment and reuse of soil and discharge of groundwater	*Valérie Cappuyns | KU Leuven – University of Leuven | Belgium:* Soil and circular Economy: state of the art on the reuse of excavated soil in Europe	*Christine Switzer | University of Strathclyde | UK:* Smouldering Remediation and Resource Recovery from Contaminated Soils and Waste Materials	*Maurice Henssen | Bioclear earth | Netherlands:* To use or not to use: Handling sewer overflow sludge	*Yevheniya Volchko | Chalmers University of Technology| Sweden:* Assessing costs and benefits of improved soil quality management in remediation projects: A case study from Sweden	*Alberto Leombruni | PeroxyChem | Italy:* A Review of Chemical Treatment Methods for Soil and Groundwater containing Arsenic and Chromium	

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
TUESDAY	*Martijn van Houten | Witteveen+Bos|Netherlands:* A framework for dealing with PFAS in the Netherlands	*Hans Groot | Deltares | NL:* The SURICATES project – Pilot reallocation of 200.000 tons of sediment within the river in Port of Rotterdam, the Netherlands	*Niels Ploug | Krüger A/S | Denmark:* First European thermal remediation of crystalline bedrock	*Daniel Hubé | BRGM|France:* Industrial scale destruction of old chemical ammunition of the Great War on the western Front The hundred-year-old vorgotten contamination			
12:30 – 14:00	Lunch						
14:00 – 15:30	4dSpS2 Our precious groundwater is going grey…. What can we do?	4c3 Combining chemical and biological remediation	4a7 Advances in *in-situ* chemical reduction (ISCR)	1c1 New digital and management developments	5cSpS3 Nature-based remediation workshop	3a1 Transport processes of emerging contaminants	4aCom1 New advances in the implementation of (bio) remediation additives: a policy perspective
TUESDAY	**Chair: Paul Verhaagen**	**Chair: Nora Sutton**	**Chair: Johan Gemoets**	**Chair: Hanneke van der Klis**	**Chair: Geert de Buysscher**	**Chair: Fred Coulon**	**Chair: Jan Haemers**
Presentation 1: *Nanne Hoekstra | Deltares | Netherlands:* How our groundwater goes grey Presentation 2: *Han Teunissen | Arcadis Nederland B.V. | Netherlands:* Are our water sources sufficiently protected? Presentation 3: *Frank Pels | Hannover Milieuen Veiligheidstechniek BV (HMVT) | Netherlands:* Constructed wetlands as cost-effective and energy-efficient solution	*Alberto Leombruni | Peroxy-Chem | Italy:* Full-scale application of EHC Liquid technology for the ISCR and ERD treatment of an aquifer contaminated with Tetrachloromethane and Chloroform	*Flavia Digiacomo | Arcadis Germany GmbH:* Transport of sulfidized zerovalent iron particles in porous media: need for a particle stabilizer	*Henri Molleron | COLAS SA | France:* BIM: the Dunkerque refinery cleaned up using an innovative digital tool	*Hans Bengtsson | Rambøll | Denmark (Anchorman)* Presenters of Session 5cSps3: *Mark Nielsen | Ramboll | United States* *Victor Magar | Ramboll | United States* *Jarno Laitinen | Ramboll Finland Oy | Finland* *Johan van Leeuwen | Deltares / Universiteit Utrecht | Netherlands*	*Ken Kiefer | ERM Australia:* Using groundwater mass flux tools for evaluating complex issues associated with PFAS – Lessons learnt at multiple PFAS impacted sites	*Mathieu Morlay | COLAS Environnement | France*: Production and use of a biosurfactant for the remediation of soils impacted by Polycyclic Aromatic Hydrocarbons
	Leah MacKinnon | Geosyntec Consultants | Canada: Application of Sequenced Chemical Oxidation and Bioremediation for Treatment of a Pharmaceutical Waste Mixture – Full Scale Application	*Katerina Hantzi | Capital Region of Denmark:* Development of a sustainable soil mixing technique using energy efficient binders and iron based reductive dechlorination	*Léa Pannecoucke | MINES ParisTech, PSL University | France*: Combining geostatistics and data from numerical simulations to improve estimations of pollution plumes in groundwater or soils		*Kevin Kuntze | Isodetect GmbH | Germany:* Evaluation of sources and sinks for chiral pesticides in groundwater – a case study	*Marika Sallot des Noyers | France:* *In-situ* solutions using Zero Valent Iron for the remediation of sites contaminated with chlorinated solvents
	Daniel Leigh | PeroxyChem| US: A Field Comparison of Biogeochemically Enhanced, Biological and Chemical Reduction for Treatment of Chlorinated Organics	*Stef Vansteenberge | A+E Consult bvba | Belgium:* Implementation of zerovalent iron for source zone treatment via soil mixing	*Timothy Saey | 3Dsoil| Belgium:* What's the potential of geophysics for mapping landfills and industrial sites?		*Damian Pietrzak | AGH University of Science and Technology | Poland:* Transport of selected neonicotinoids in groundwater: column experiment	*Jack Shore | REGENESIS| UK:* Successful biostimulation and bioaugmentation treatment of DNAPL and dissolved phase mixed chlorinated solvent contamination under an active commercial site
	Helena Nord | RGS Nordic | Sweden: Combining Strategies for Remediation of Different Gas Work DNAPL and LNAPL Groundwater Contaminants	*Kirsten Rügge | COWI A/S | Ecuador:* Comparison of ZVI-products for combined abiotic and biotic treatment of chlorinated solvents	*Jasper Schmeits | Tauw bv | Netherlands:* Use of drone as a sustainable solution for surveys		*Tessa Pancras | Arcadis | Netherlands:* Mapping PFAS contamination in the Netherlands	*Kris Maerten | REGENESIS| Belgium:* Performance of a New Activated Carbon Amendment for Bioremediating Petroleum-Impacted Sites
	Karina Suy | Mourik n.v. | Belgium: *In situ* chemical oxidation to enhance the performance of an air sparging and soil vapour extraction treatment of chlorinated VOCS in glauconitic sands on a Belgian site	*Daniela Zingaretti | University of Rome | Italy:* Horizontal permeable reactive barriers with zero-valent iron for preventing upward diffusion of chlorinated solvent vapors in the unsaturated zone	*Patrick Morren | Tauw bv | Netherlands:* Fieldworker of the future - Combination of Sensing and Augmented Reality			*Jeremy Birnstingl | Regenesis Ltd. | UK:* Engineered Retardation Factor Manipulation using Liquid Activated Carbon for Passive Management of Plume Dynamics

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
15:30 – 16:00	Coffee break						
16:00 – 17:30	4a10 Advances in nanoremediation technologies (2)	5b1 Remediation goals and strategies (1)	3b2 Risk managment of diffuseand emerging contamination (2)	2a4 Advanced monitoring approaches for biodegradation assessment	7bSpS2 Soil energy as smart low carbon technology for cost-effective climate mitigation	4c1 Innovative technologies for treating PFAS (1)	
TUESDAY	**Chair:** **Mette Christopherson**	**Chair:** **Karen van Geert**	**Chair:** **Nora Sutton**	**Chair:** **Nina Tuxen**	**Chair:** **Nanne Hoekstra**	**Chair:** **Anders Christensen**	
	Sadjad Mohammadian | University of Duisburg-Essen| Germany: Removal of heavy metal contamination from groundwater using iron-oxide nanoparticles: A Field application	*Jacob H. Christiansen | COWI A/S | Denmark*: Using Lower Threshold Limits as a Stop Criteria to Prevent Overdoing Remediation. When is it Good Enough?	*<u>Keynote</u>: Arjen Wintersen | RIVM | Netherlands:* Screening values for polyfluoroalkyl substances (PFAS) PFOS and PFOA in soil and groundwater	*Heinrich Eisenmann | Isodetect GmbH | Germany:* Advanced Monitoring Tools for *In Situ* Remediation Measures – Conclusions from 233 Contaminated Site Investigations	Panel speakers: *Wouter Gevaers, Arcadis, Belgium* *Chris vd Meene, Municipality of Utrecht, Netherlands (local authority)* *Salvador Gorriz, Council Town of Nules, Spain (launching customer)* *Anne Mette Granhøj Hansen or Line Mørkebjerg Fischer from Capital Region of Denmark (regional authority)* *Paul Nathanail, professor of Engineering Geology, University of Nottingham, UK* *Mike vd Zanden, Nike, Belgium (end user)* *Frank Agterberg, BodemenergieNL* *A representative of the European Geothermal Energy Council –* *A representative from EU DG Energy, or DG Climate*	*Thomas Held | Arcadis Germany GmbH | Germany:* Evaluation of Established and Upcoming Remediation Technologies	
	Fabio Tatti | Sapienza University of Rome | Italy: Nanoparticles in remediation of heterogeneous aquifers: laboratory tests and numerical simulations	*Joytishna Jit | CRC CARE / University of South Australia:* Australia's National framework for the remediation and management of contaminated sites in Australia		*Sebastien Kaskassian |Tauw France, Jean-Michel Monier |Enoveo France:* The use of *in situ* biosensors to monitor a biostimulation pilot at a chlorinated solvents plume		*Karen Van Geert | Arcadis| Belgium:* Emerging impact of PFAS in Flanders – prioritization of risk locations and sampling campaigns to develop soil management strategies	
	Christos Tsakiroglou | Foundation for Research and Technology | Greece: Developing zero-valent iron nanoparticles (nZVI) suspensions from plant extracts and assessing their reactivity to hexavalent chromium	*Olga Vounaki | ERM BeNe | Belgium:* Defining Site specific water discharge values for 1,4-Di-oxane and other compounds – Applying the BATNEEC approach and sustainability principles to improve the overall performance of an ongoing P&T system	*Elisabeth van Bentum | Arcadis, The Netherlands:* Atmospheric deposition of PFOA and GenX around fluo-rochemical processing plants in Dordrecht and Helmond in the Netherlands	*Cecilie Ottosen | Technical University of Denmark:* Multiple lines of evidence approach to assess chlorinated ethenes degradation during treatment with liquid activated carbon and bioamendments		*Navid Saeidi |UFZ |Germany:* Tuning activated carbon adsorption by surface chemistry and electric potentials: Perfluorinated alkyl surfactants as target pollutants	
	Adrian Schiefler | Capital Region of Denmark/ University of Copenhagen: Interactions of sulfidized nano-zero-valent-iron with microbes	*tba*	*Grønning Hege Mentzoni| Norwegian Geotechnical Institute (NGI):* Sediments as a Source of PFAS in Biota – Two Case Studies from Norway	*Bastian Saputra | The University of Sheffield | UK*: Biosensors for measuring the bioavailability of heavy metals in the remediation of biochar-amended soil		*Charles-David Dubé | CNRC | Canada:* Taguchi optimization of process parameters in electro-chemical PFOS removal from contaminated groundwater	
	Jan Haemers | Haemers Technologies | Belgium: Combination of *In Situ* injection of Nanoparticles to fix heavy metals, with *In Situ* thermal desorption to address the organics	*Joke Van De Steene | DEME Environmental Contractors | Belgium*: Evaluation of the key success factor of complex remedia-tions based on a case study: "The Mariakerke acid tar dumpsite, Belgium"	*Kaat Touchant | VITO | Belgium*: The management of diffuse lead contaminated soil in Flanders and The Netherlands...	*Jeremy Birnstingl | Regenesis Ltd. | UK:* Estimation of Sorbed-Phase Biodegradation Rate in Activated Carbon Barriers Using Microbial Diagnostics, CSIA and *In Situ* Microcosms		*David Major | Savron | Canada*: PFAS Destruction through Smoldering Combustion (STARx)	
17:30 - 18:30	Poster session in the Marble Hall						

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
WEDNESDAY, 22 May							
09:00 – 10:30	4c4 Combined remediation technologies to treat chlorinated contaminants	4a11 Electro-based (bio) remediation	3b1 Risk management of diffuse and emerging contamination (1)	1b1 Data management and Visualisation	6bSps2 Towards land stewardship: The INSPIRATION Strategic Research Agenda on soil and land 1 year on…	Economic 1 Accounting rules	4cCom1 Surfactant enhanced re-mediation as a lead-out for ISCO or ISCR
WED	**Chair:** **Stefan Colombano**	**Chair:** **Lukas Wick**	**Chair:** **Johan Ceenaeme**	**Chair:** **Darren Beriro**	**Chairs:** **Detlef Grimski, Eline Toes**	**Chair:** **Dirk Nuyens**	**Chair:** **Glenn Heernaert**
	Stéfan Colombano | BRGM| France: Use of permittivity, resisi-tivity and optical density to quantify the efficiency of free product recovery of heavy chlorinated compounds	*Lukas Wick | UFZ | Germany:* The power of power: effects of electric fields on bacterial deposition and transport in porous media	*Liisa Koivulehto | Ramboll Finland Oy:* Prioritization model for risk management of groundwater bodies with poor chemical status in Finland – A new approach	*Wouter Gevaerts | ARCADIS| Belgium*: Innovative modelling and visualization methods in opti-mizing *in situ* remediation of contamination sources: way of working, opportunities and risks		Concept: o Discussion on accounting rules related to environmental liability o Short discussion Content: The idea is to give the non-accountant participant a good overview on the accounting framework for estimating, provisioning and managing environmental liabilities for publicly traded companies. It will discuss the convergence of the US/ International Accounting Rules and give more details on how these liabilities are being estimated and managed within an industrial/real estate portfolio, and what the position/experience is of auditor firms validating the company's results/value. The impacts of long-term remedial projects, engineering controls, usage restrictions, currency fluctuations, change of company structure, … will also be discussed. The non-financial reporting will also be discussed. Presenters: o KPMG: Patouche Van Staay o Baker & McKenzie : Werner Vandenbruwaene o ERM : David Cruickshank	Surfactant enhanced remediation as a lead-out for ISCO or ISCR remediation of high contaminated chlorinaterd solvents with a combined remediation technology Session from a business perspective
	Mette Christophersen|Rambøll Denmark: Combination of enhanced reductive dechlorination and aquifer thermal energy storage – pilot test	*Raphi Mandelbaum | LDD ADVANCED TECHNOLOGIES | Israel:* An Integrated Biogeochemical/ Electrochemical Method for Remediation of Contaminated Groundwater	*Andrea Aldas Vargas | Wa-geningen University | Neth-erlands:* Exploring the pesticide biodegradation potential in aquifers used for drinking water production	*Darren Beriro | British Geo-logical Survey | UK* Data driven conceptual site models using Groundhog Professional			
	Paolo Ciampi | Sapienza University of Rome | Italy: The first completed example in Europe for the remediation of an aquifer contaminated with chlorinated solvents by a combination of adsorption and biodegradation	*Bente Højlund Hyldegaard | COWI A/S | Denmark:* Investigation of electro-chemistry as a remedy for tetrachloroethylene plumes	*Raffaella Meffe | IMDEA Water Institute | Spain:* Pharmaceuticals, trace metals and metalloids in the surface water used for crop irrigation: natural attenuation or risk to health?	*Denny Schanze | Arcadis Nederland B.V.:* Remediation Dashboards – Real time remediation follow up and decision making			
	James Baldock | ERM | UK: An Adaptive Remediation Strategy to Mitigate Biofouling in a Hydraulic Containment and *Ex-situ* Treatment System	*Vojtech Stejskal | Czech Republic:* Electro-kinetically enhanced nZVI: experiences from France and Switzerland	*James Wragg | Geosyntec Consultants Ltd | UK:* Developing MNA and Remedial Strategies for Norbornene Flame Retardants and Insecticides	*Sabrina Cipullo | Cranfield University | UK:* Application of machine learning models to predict bioavailability and toxicity of complex chemical mixtures in a lab-based trial			
	Jeroen Vandenbruwane | Injectis Innovative Spin® injection technology pushes boundaries of *in situ* remediation	*Gabriele Beretta | Politecnico di Milano | Italy:* Cathodic autotrophic microbial communities able to stimulate hexavalent chromium reduction	*John van Tol, Annelies Voogt MSc. John van Tol | Tauw bv | Netherlands:* Improving decision making for contaminated land management using environmental risk levels	*Inge Genné | VITO | Belgium:* Water Management 4.0			
10:30 – 11:00	Coffee break						

Moderators:

Nele Bal (OVAM - Public Waste Agency of Flanders)

Sandra Boekhold (RIVM National Institute for Public Health and the Environment)

Marie Christine Dictor (BRGM)

Petr Klusáček (Institute of Geonics, Academy of Sciences of the Czech Republic)

Linda Maring (Deltares)

Paul Nathanail (Land Quality Management)

Esther Goidts (Public Services of Wallonia)

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
11:00 – 12:30	4dSps3 Improving the management and rehabilitation of contaminated soils with low-cost technologies and methods	5b2 Remediation goals and strategies (2)	3d2 Policy strategies of environmental concerns of emerging contaminations (2)	2a3 Monitoring approaches for vapor intrusion and risk assessment	7b1 Reuse and upgrading of materials for improved ecological functioning	Economic 2 Due Diligence	
WED	**Chair:** **Irene Jubany**	**Chair:** **Dietmar Mueller-Grabherr**	**Chair:** **Dominique Guyonnet**	**Chair:** **Sara Picone**	**Chair:** **Huub Rijnaarts**	**Chair:** **Geert De Buysschers**	
	Myriam Schmutz Copper soil content, soil characterization and plant vigor: what link? Application to a vineyard *Ángel Faz* Transfer of heavy metals to agricultural and natural plants and selection of plant species most suitable for phytostabilization trials *Christelle Gramaglia* The hidden socioeconomical costs of pollution. Surveying vulnerabilities and coping tactics in a French industrial town *Marilyne Soubrand* Investigating the relationship between speciation and oral/lung bioaccessibility of highly contaminated tailings and soils: a technical tool for health risk assessment *Maria Teresa Condesso de Melo* Development of a Decision Support System (DSS) in a GIS platform to integrate transport modelling results of soil-surface and groundwater contaminants *Eva Schreck* Tillandsias usneoides for air quality biomonitoring in the	*Dorien Gorteman | Arcadis Belgium:* Intensive historical review and sampling campaigns to validate potential hotspots of sediment pollution linked with (former) risk activities	*Corinne Merly | BRGM | Belgium:* Towards a less stringent groundwater body objective? Feedback from a French heavily industrial and urban study area	*Helen Dawson | Geosyntec Consultants, Inc | US:* Rapid Assessment of Potential Inhalation Risks due to the Vapour Intrusion Pathway Using Building Pressure Cycling and High Volume Subslab Testing	*Fouad Abo | GHD Pty Ltd | Australia:* How Does Contaminants Bioavailability Help Sustainable Soil Use – Science vs Reality	Concept: 3 Presentations related to due diligence Roundtable discussion Content: Land contamination is often an important factor in due diligence assessments of (former) industrial facilities. This session will provide insight on how to assess contaminated land liabilities in a transaction process. We will be informed on the benefits and limitations of so-called Phase II assessments, so that more informed investment decisions can be taken. We will zoom in on how the total cost of ownership is applied on a complex contaminated site using a case study. And we will be informed about due diligence tools applied on large portfolios of sites. The session will be closed by a panel discussion between the presenters, including interaction with the audience. Participants - Benefits and limitations of fie- ld investigations (Phase II) in an environmental due diligence process: Bertrand Latrobe (Ramboll)	
		Grzegorz Gzyl | Central Mining Institute | Germany: A Management Strategy to deal with Soil and Groundwater Contamination		*Harry O'Neill | Beacon Environmental Services | US :* Why the US EPA is Promoting the Collection of Time-Integrated, Passive Indoor Air Samples for Vapor Intrusion Risk Assessments	*Jonas Wittox | Verhoeve Milieu & Water | Belgium*: ZuNurec: purification and recupuration of nutrients for Flemish greenhouse waste-water		
		Kenneth Jones | ERM France: Chlorinated solvents and re-development of an industrial site: the importance of characterisation in the definition of an appropriate treatment strategy	*Paulo Valle | ERM | Belgium:* Multi-National Perspectives and Remedial Considerations for 1,4–Dioxane as Co-Contaminant at Chlorinated Solvent Sites	*Sine Thorling Sørensen | Capital Region of Denmark:* Direct distribution of soil gas in an older industrial building	*Ute Kalbe | Federal Institute for Materials Research and Testing (BAM) | Germany:* Monitoring of soil-like materials in view of potential re-use		
		Karolien Vermeiren VITO NV| Belgium: A digital explorer for contaminated stream sediments	*Baptiste Sauvaget | BRGM/ Mines ParisTech PSL | France:* Geochemical baseline of urban soils with undedicated datasets: link between methodology and environmental policies	*Trine Skov Jepsen | Dansk Miljoeraadgivning A/S (DMR A/S) | Denmark:* Quantification of PCE from contaminated building materials to indoor air – Tools and NxtGen conceptual understanding	*Mina Kiani | University of Helsinki, Finland:* Environmental Impacts of Lake Sediment Reuse as A Phosphorus-Rich Soil Amendment		
		Geert Roovers | Saxion University of Applied Sciences, Enschede/ Deventer| Netherlands: Governance strategies for finalizing contaminated areas	*Nanda Hermes | ERM | Belgium:* How compounds become identified as emerging/ new contaminants, and the implications for stakeholders	*Anne Gammeltoft Hindrichsen | Orbicon A/S | Denmark:* Risk of vapor intrusion to the indoor climate from groundwater contamination			
12:30 – 14:00	Lunch						
Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1

14:00 – 15:30	4b2 Thermal treatment (2)	2b1 Advances in *in situ* measurement and analytical techniques	4a4 Bioremediation of aliphatic/ aromatic hydrocarbons and fuel-additives (1)	5cSps1 Ports session: Dealing with pollution and land transition in times of the energy transition	7aSpS How to implement innovative environmental technologies in society to gain value from degraded and polluted sites?	Economic 3 Round table with stakeholders	5bCom1 Understanding Best Practices: ISCO with Activated Persulfates
WED	**Chair: Thomas Larsen**	**Chair: Ilse van Keer**	**Chair: Marcelle van der Waals**	**Chairs: Sophie Vermooten & Jan-Willem Meertens:**	**Chair: Marie-Odile Simonnot**	**Chair: Wouter Gevaerts**	**Chair: Michael Mueller**
	Alin Aline Jordens | Haemers Technologies | Belgium: Scaling up of Dioxin Contaminated Soil Thermal Desorption Treatment: Laboratory tests and pilot conception at Bien Hoa Airbase, Vietnam	*Pieter Buffel | EnISSA | Belgium:* Application of EnISSA-MIP at coal tar or creosote contaminated sites: Individual GCMS detection of (s)VOC's can tackle differences in trip time in the MIP system	*Marcelle van der Waals | Deltares | Netherlands:* Microbial degradation of fuel components	*Jan-Willem Meertens:* Coordinated approach remediation of the port of Rotterdam *Henriette Korpershoek (Havenbedrijf Rotterdam N.V.)* *Anthony Credoz (TOTAL S.A.):* Coordinated approach remediation of the port of Rotterdam *Matthijs Bonte (Shell Global Solutions International BV):* Coordinated approach remediation of the port of Rotterdam	*Jean Louis Morel | France* Innovation for a green future for brownfields *Rongliang Qiu | Sun Yat-sen University | China* Redevelopment of rare-earth mining sites *Marie-Odile Simonnot | France* Redevelopment of former coking plant site – the LORVER and TANIA projects *Tim Grotenhuis | Wageningen University and Research | Netherlands* Implementation of ATES & Bioremediation in society by the Living Lab approach Panel discussion: Which strategies to promote innovation and gain value from abandoned sites? *Moderator: Marie-Odile Simonnot | France*	Concept: Discussion related to the practise of environmental liability management: challenges and opportunities Presentations : Each participant explains (5') how he or she is dealing with financial liability management: - Point of view of Industry - Signify: Johan De Fraye - Shell : Jonathan Smith - Revive: Alexandre Hughe - Lucia Buve: Umicore Point of view of a lawyer Pascal Mallien (Baker & McKenzie) For the panel : Point of view of a regulator Johan Ceenaeme (OVAM, Flanders) Common Forum: Dietmar Müller-Grabherr	*Brant Smith | PeroxyChem | US:* Sodium and Potassium Persulfates: Characteristics, Chemistries, and Applications
	Paul Hegele | McMillan-McGee Corp.: *In Situ* Thermal Remediation ~ AMCO Superfund Site	*Anders Georg Christensen | NIRAS A/S Denmark:* Applications of the new Geoprobe® OIP systems for NAPL and tracer detection	*Brijesh Kumar YADAV | Indian institute of Technology Roorkee | India:* Behavior of LNAPL under Dynamic Groundwater Flow Conditions				*Jamie Cutting | CE Geochem Ltd | UK:* The Value of Bench Testing – Lessons Learned Examining Activated Persulfate Technologies
	Katia Pacella | Haemers Technologies | Italy: Thermal desorption with smart burners – case study for the *in-situ* treatment of unsaturated soils at the refinery of Gela (Italy)	*José Luis R. Gallego | University of Oviedo | Spain:* Comprehensive target and non-target analyses of Hg-As compounds and organic contaminants of mining, metallurgy and demolition waste in a brownfield	*Axel Lebreton | LIEC – CNRS/ Université de Lorraine | France:* Impact of the soil mineralogy on the contamination and the microbial communities during lab-scale bioremediation of petroleum-contaminated soil				*Vito Schifano | Ladurner Bonifiche Srl | Italy:* Integrated Remediation – Redevelopment of Contaminated Sites using ISCO-ISS Soil Mixing Technology
	James Baldock | ERM | UK: Sustainable Low Temperature Thermal Remediation of Pesticides	*Tuomo Nissinen | University of Eastern Finland:* On-site analysis of metal concentrations of natural waters	*Hans Baillieul | Sodecon | Belgium:* Innovative solution for difficult to treat a large TEX contamination: stimulation of the anaerobic bioremediation				*Gordon Bures | SENSATEC GmbH | Germany*: Targeted Soils Emplacement into Low Permeability Lithologies
	Timothy Warner | TRS Europe | Netherlands: Best methods for developing a thermal remediation project	*Thomas Van Hoestenberghe | Fluves NV | Belgium, Philip Spadaro:* Use of a Fiber Optic Temperature Sensor System to Evaluate EMNR/MNR at a Sediment Remediation Site	*Paul Iturbe-Espinoza | Vrije Universiteit Amsterdam | Netherlands* Biodegradation of crude oil by microbial consortia from Nigerian soils				*Judith Nathanail | Land Quality Management, Ltd | UK:* Projecting into the Future: Where does ISCO fit into Remediation in Years Ahead?
14:00 – 15:30	Coffee break						

16:00 – 17:30	4a1 Pilot and field scale biological reductive dechlorination (1)	4cSpS1 Foams for *in situ* treatments of vadose zones contaminated by hydrocarbons	4bSpS Workshop Bio-Geotechnology	2bSpS Harmonization of analytical protocols for chemical analysis of contaminants	6bSpS1 The implementation of soil and land-related Sustainable Development Goals at EU level	Flemish session	
WED	**Chair:** **Ernesto Marco Urrea**	**Chair:** **Nicolas Fatin-Rouge**	**Chair:** **Frank Volkering /** **Timo Heimovaara**	**Chair:** **Stany Pensaart**	**Chair:** **Linda Maring**	**Chair:** **Johan Ceenaeme**	
	John Dijk | Greensoil Group | Belgium: Complete Dechlorination of Chlorinated Ethenes and Chloroform in a Brackish Environment	*Nicolas Fatin-Rouge | Université de Bourgogne | France:* Foams for *in-situ* treatments of vadose zones contaminated by hydrocarbons	*Timo Heimovaara* *Delft University of Technology, Netherlands* *Frank Volkering* *Tauw bv* *Susanne Laumann* *Delft University of Technology, Netherlands* *Daniel Leigh* *PeroxyChem Environmental Solutions, US*	*Stany Pensaert | DEME | Belgium:* Environmental consultants and remediation contractors: how to deal with non harmonized standards for analysis? *Hendrik Van De Weghe | V.I.T.O. | Belgium:* Analysis procedures as source of (un)certainty *Marc Van Ryckeghem | SGS Belgium | Belgium:* Challenges of contracting in a globalized environment *Arjan Veldhuizen | Eurofins | Netherlands:* CEN working groups: the road to harmonization	*Linda Maring* *Deltares, Netherlands* *Detlef Grimski | German Emnvironment Agency | Germany* *Sophie Moinier* *Deltares, Netherlands* *Paul Bardos | R3 Environmental Technology Ltd | United Kingdom* *Niels Døssing Overheu | Capital Region of Denmark | Denmark*	*Johan Ceenaeme (OVAM – Public Waste Agency of Flanders)* *Nathalie Van Trier (OVAM - Flemish Waste Agency)* *Nele Bal (OVAM - Public Waste Agency of Flanders)* *Ann Cuykens (OVAM)* *Wouter Gevaerts (Arcadis Belgium)* *Karel Van Nieuwenhove (Antea Group)* *Pieter Schrooten (Cornet & Renard bvba)* *Marjan Joris (Antea Group)* *Siegfried D'haene (DEC – DEME Environmental Contractors nv)* *Hans Baillieul (Sodecon)* *Ellen De Wilde (Belgium)* *Johan Vos (VITO)* *Ilse Van Keer (VITO NV)*	
	Diederik Valcke: Active recirculation for enhanced reductive dechlorination of chlorinated VOCs in glauconitic sand on a Belgian site	*Iheb Bouzid | Université de Bourgogne | France:* Assessment of a new foam-based technology for enhanced oxidant delivery and treatment in unsaturated anisotropic hydrocarbon-contaminated soils					
	Natàlia Blázquez-Pallí | Litoclean | Spain: Enhanced anaerobic bioremediation of a site contaminated with chlorinated ethenes: from lab studies to full-scale implementation	*Douglas Pino Herrera | Université Paris-Est | France:* Selection of Micro-organisms and Transport with surfactant Foams for Enhanced *In Situ* Biological Treatment of Petroleum Hydrocarbon in Soil					
	Ondřej Lhotský | DEKONTA, a.s. | Czech Republic: The Effects of Hydraulic/ Pneumatic Fracturing Enhanced Remediation (FRAC IN) at a Site Contaminated by Chlorinated Ethenes	*Malorie Dierick | REMEA | France:* Field-tests: Enhanced *in situ* chemical oxidation of an anisotropic hydrocarbon-contaminated plant using foams					
	Firoozeh Arjmand | JACOBS| Italy: Enhanced *In-Situ* Bioremediation (EISB) Combined with *In-Situ* Chemical Reduction (ISCR) for the Remediation of a Heavy Contaminated Chlorinated Solvents Source Zone in an industrial site in South of Italy	*Quentin Giraud | INTERA | France:* 3D Numerical Foam Flow and Transport Modelling in the Porous Media Vadose Zone with the new simulator TMVOC++					

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
THURSDAY, 23 May							
09:00 – 10:30	4cSps2 How to bridge the innovation gap part 1	Legal 1 5aSps1 International developments soil pollution	4a3 (Bio)remediation of contaminants of emerging concern	2a1 Innovative and combined approaches for high resolution site characterization	7c1 Nature based solutions: effectiveness for long term ecosystem services for soil & water	4dSps1 Nature based remediation solutions: project examples of the power of bioremediation	4cCom2 Combined treatment technologies and technology trains
THUR	**Chair:** **Hasse Milter & Niels Døssing Overheu**	**Chair:** **Johan Ceenaem & Bernard Vanheusden**	**Chair:** **Marc Viñas**	**Chair:** **Johan van Leeuwen**	**Chair:** **Corinne Merly**	**Chair:** **Rogier de Waele**	**Chair:** **Huub Rijnaarts**
	Niels Døssing Overheu *The Capital Region of Denmark* *Hasse Milter* *Region Zealand – Denmark | Denmark* *Per Loll* *Dansk Miljoeraadgivning A/S (DMR A/S) | Denmark* *Julian Bosch* *Intrapore GmbH | Germany*	*Johan Ceenaeme | Belgium:* Legal aspects of the management of contaminated land *Jörg Frauenstein / UBA / Germany:* Pillars of a precautionary policy in the EU to avoid harmful soil and groundwater changes on installations according to IED *Francesca Motta | AECOM URS Italia S.p.A. | Italy:* Management of remediation programs at fuel retail stations in a selection of different European countries: from identification to delivery of remediation works *Steve Leroi | Belgium:* How to manage heavily impacted sites and complex remediation in fast evolving markets locked by legal and technology constrains.	*Sarah Suehnholz | UFZ | Germany:* Iron Minerals as Catalytic Activators for Persulfate: Performance and Mechanistic Studies	*Paolo Ciampi | Sapienza University of Rome | Italy:* Integrated Approach in the Management of a Jet Fuel Contaminated Site. The Decimomannu Air Base (CA, Sardinia)	*Richard Lord | University of Strathclyde, Glasgow | UK:* Long-term benefits of using green waste compost in land restoration as part of the Circular Economy	*Paul van Riet | Dow Benelux B.V. | Netherlands, John Dijk | GreenSoil International B.V. | Netherlands:* Nature based remediation of 1,4 Dioxane at a chemical plant (NL) – phytocontainment and biological source zone treatment *Leen Bastiaens | VITO NV | Belgium:* Innovative bioremediation of MTBE and organics: *in situ* bio-sparging and high yield MTBE bioreactor development *Marijke Van Camp | RSK Benelux Bvba | Belgium:* Cyclic bioremediation of a heavily impacted Xylene site in Westerlo (BE) – 100 % on site biological treatment of soil, groundwater and soil vapor	*George (Bud) Ivey | Ivey International Inc. | Canada:* Surfactant Enhanced Extraction to Expedite Remediation of a Carbon Tetrachloride Source Zone at an Active Grain Elevator Facility *Michael Mueller | PeroxyChem Environmental Solutions | Austria:* Combined Remedy: Alkaline Activated Persulfate with *In Situ* Solidification/ Stabilization (ISCO-ISS) in a Single Application *Marcello Carboni | REGENESIS (Italia) | Italy:* Treatment of a large industrial site impacted with chlorinated solvents using a combination of electron-donor substrates and a liquid activated carbon barrier
			Nora Sutton | Wageningen University | Netherlands: *In-situ* remediation of pesticides in groundwater used for drinking water production: the potential of DOM	*David Holmes | Ecologia Environmental | UK:* Advances in *in-situ* Automatous LNAPL and Water Level Monitoring by Guided Wire Radar: detailed analysis of LNAPL behaviour and improved site understanding	*Virtudes Martínez Hernández | IMDEA Water Institute | Spain:* Amended vegetation filters: a new nature based solution to treat wastewater, increase groundwater resources, recover nutrients and produce biomass		
			Alina Gawel | UFZ | Germany *In-situ* remediation of atrazine- and bromacil-contaminated groundwater: Application screening for two iron-containing reactive particles at the lab-scale	*Eugen Martac | Fugro Germany Land GmbH | Germany:* Reliable and cost-effective site characterization using a Dual LIF (simultaneous UVOST-TarGOST)-CPT approach	*Jules Simonis | BRGM | France:* To what extent can secondary mineral resources replace primary mineral resource?		
			William Fawcett-Hirst | Cranfield University | UK: Sustainable activated carbon for the remediation of insensitive high explosive contaminated water	*Patrik Nilsson | Projektengagemang AB | Sweden:* Innovative, multi technique investigation for residual NAPL presence in order to assess bedrock remediation at a site in Sweden	*Niels Van Putte | Universiteit Antwerpen | Belgium:* Tidal wetland restoration projects as a nature-based solution: characterization & design considerations		
			Elisabet Aranda | University of Granada | Spain: Penicillium sp. removes pharmaceutical compounds from hospital wastewater and outcompetes native bacterial and fungal community in fluidized batch bioreactors	*Jos Gompelman | ERM BeNe | Netherlands:* High resolution site characterization: the basis of your conceptual site model	*Inge De Vrieze | OVAM | Belgium:* From contaminated space toward a meaningful place: reactivating soil, land and cities		

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
11:00 – 12:30	4cSps3 How to bridge the innovation gap part 2	Legal 2 5aSps2 International developments policy on soil, land and groundwater	4a5 Bioremediation of aliphatic/ aromatic hydrocarbons and fuel-additives: (2)	2c1 Soil-sediment-water interaction and system dynamics	6cSpS Water Nexus as a source for innovation in the water security challenge	4b4 Challenges and complex issues	5cSps2 Progress in Sustainable Land Management Worldwide
THUR	**Chair:** **Hasse Milter & Niels Døssing Overheu**	**Chair:** **Johan Ceenaeme**	**Chair:** **Marc Viñas**	**Chair:** **Poul Bjerg**	**Chair:** **Huub Rijnaarts & Hans van Duijne**	**Chair:** **Richard Lord**	**Chair:** **Nicola Harries**
Hasse Milter *Region Zealand – Denmark |* *Per Loll* *Dansk Miljoeraadgivning A/S (DMR A/S) | Denmark* *Julian Bosch* *Intrapore GmbH | Germany*	*Sophie Capus | Administration de l'environnement Luxembourg | Luxembourg:* Luxembourg's cumbersome way towards a national soil law *Mentore Vaccari | University of Brescia | Italy:* Barriers limiting the remediation of contaminated sites in Italy and possible solutions *Sandra Boekhold | RIVM National Institute for Public Health and the Environment | Netherlands:* Decision-making on groundwater quality management: perspectives from competent authorities in the Netherlands	*Francesco Bianco | University of Cassino and Southern Lazio | Italy:* Removal of poly-cyclic aromatic hydrocarbons from contaminated marine sediments by biostimulation and thermal desorption *Douglas Pino Herrera | Université Paris-Est Marne la Vallée | France:* Mechanisms involved in the remediation of PAH-polluted soil using a slurry bioreactor *Jinlan Xu | China:* Improve subsequent bioremediation of long-chain crude oil in soil using bio-stimulated Fe-SOM Fenton pre-oxidation *Rogier De Waele | GreenSoil International B.V. | Belgium:* Innovative bioremediation of MTBE and organics: *in situ* bio-sparging and high yield MTBE bioreactor development *Geert Wijn | Arcadis Netherlands | Netherlands:* Upgrading biosparging from plume to source treatment for an ETBE/TBA impacted site	*Poul L. Bjerg | Technical University of Denmark:* Transport, fate and risk assessment of groundwater contaminants discharging to a stream: novel approaches and current understanding *Paul Frogner-Kockum | Swedish Geotechnical Institute:* Lower metal fluxes from fiberbank deposits than expected *Julia Gebert | Delft University of Technology | Netherlands:* Turnover of organic matter in river sediments – the BIOMUD project *Christian Opp | Philipps-Universität Marburg | Germany:* How influence metal concentrations in soils and in river beds the metal accumulation in a reservoir?	Participants: *Repr. Witteveen & Bos, Huub Rijnaarts, Henk Pool, Thomas Wagner, Hans van Duijne, repr. Ministry I&W* Round table: *o Huub Rijnaarts (intro project (incl. technology and natural system innovations))* *o Henk Pool (interest of the industry)* *o Thomas Wagner (system analyses & wetland technologies)* *o Representative of the Dutch government Min. of I&W)* *o Representative of Witteveen & Bos (moderator and introduction to interactive sessions)* Introduction (45 min) Introduction to Water Nexus *(Huub Rijnaarts)* * Which alternative water resources (e.g. wastewater, brackish water) are available and how to connect them to the users? (Thomas Wagner) * Challenges from the different stakeholders in the region when using alternative water resources (Henk Pool) * Objective and explanation of the session (Witteveen & Bos) Interactive (35 min) The audience will be split in several groups	*Lisandra Trine | Oregon State University | US:* Formation of PAH derivatives, increased developmental toxicity and risk assessment after SEE remediation of creosote contaminated soil from the Wyckoff/Eagle Harbor Superfund site *Mike Plimmer | GEA Ltd | UK:* Integration of innovative geotechnical and environmental solutions enables site redevelopment and protects sensitive off-site receptor from petroleum hydrocarbons *Art Lobs, Jonas Wittox | Verhoeve Milieu & Water | Belgium:* Electro Bio Reclamation (EBR) as part of a full scale soil remediation project in Ghent *Petra Grill | CDM Smith Consult GmbH | Germany* *Oliver Trötschler | University of Stuttgart | Germany:* Between caravans and boreholes – Challenges of performing *in-situ* remediation on a camping site in the Black Forest, Germany *Neal Durant | Geosyntec Consultants, Inc | US:* Full-Scale Remediation of a Coal Tar Source Area Using Combined *In Situ* Chemical Oxidation and Stabilization/ Solidification at the Former Søllerød Gaswork in Denmark	*Hayley Thoma, Barbara Maco, Laurent Bakker* *Tetsuo Yasutaka | National Institute of Advanced Industrial Science and Technology | Japan:* Progress in Sustainable Land Management Worldwide *Jonathan Smith | Shell Global Solutions (UK) Ltd | Netherlands:* Debunking myths about sustainable remediation *Hayley Thomas | Shell Global Solutions International B.V. | Netherlands:* Parallels between ISO 14001:2015 and the SuRF UK framework
12:30 – 14:00	Lunch						

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
14:00 – 15:30	4d1 Phytoremediation and ecological engineering and nature based solutions	Legal 3 5aSps3 Soil, sediments and waste	5c2 Sustainable remediation (2)	1a1 Geostatistics and modelling	7bSps1 Soil, sediment and groundwater in the circular economy – perspectives and opportunities	ThS 4a2 Pilot and field scale biological reductive dechlorination (2)	2a2 Passive sampling and mass flux measurements
THUR	**Chair:** **Alette Langenhoff**	**Chair:** **Isabelle Larmuseau & Leo Kerkstoel**	**Chair:** **Hans Slenders**	**Chair:** **Per Loll**	**Chair:** **Sophie Moinier**	**Chair:** **Kirsten Rügge**	**Chair:** **Goedele Verreydt**
	Xiaoming Wan |CAS | China: Comparison of four soil remediation techniques applied to trace elements contaminated soil: a three-year field experiment	*Steven Deleersnyder | Sertius | Belgium:* Legal framework for sediment study and remediation of water bodies in Flanders *Philip Spadaro | TIG Environmental | US* Who Should Pay for Sediment Cleanup? *Philip Spadaro | TIG Environmental | US:* Waterfront Contribution: A New Finance Paradigm for Cleanup of Contaminated Sediments *Juliette Payet, Julien Matha, Thierry Gisbert | ARCADIS France | France:* How to manage both costs, acceptable risk and stakeholders when excavating material containing asbestos in a context of Big Urban Projects?	*Lies Huysegoms | KU Leuven| Belgium:* Indicator use in soil remediation investments: views from policy, academics and practice	*David Trudel | Arcadis Switzerland | Switzerland:* Optimization of a Groundwater Monitoring Network using Geostatistics and Simulated Annealing	*Sophie Moinier, Linda Maring | Deltares | Netherlands* *Michiel Gadella | Rijkswaterstaat | Netherlands*	*Kevin Morris | ERM NA | US:* Replacing Pump and Treat System with Sustainable *In Situ* Bioremediation Strategy for Chlorinated Solvent Plume	*Elvio Amato | University of Antwerp | Belgium:* A novel active-passive sampling approach for monitoring a broad range of pollutants in water
	Felipe Sepulveda Olea | University of Glasgow | UK: Co-remediation of Pb and PAHs with fungi in urban soil		*Mathieu Morlay | COLAS Environnement | France:* Designing a sustainable remediation project with deep socio-economic impact	*Simon Gibbons | ERM | UK:* Using spill modelling to better predict environmental risk		*Antonio Molinari | Ramboll Italy S.r.l. | Italy:* Cheese whey injection in groundwater: Use of an economically and eco-friendly substrate for *in-situ* bioremediation of chlorinated solvents	*Anthony Credoz | TOTAL S.A. | France:* Innovative characterization solutions for monitoring of groundwater and dissolved contaminants dynamic
	Michel Chalot|Université de Bourgogne | France: Planting trees at phyto-management sites : recommendations from field trials		*Jenny Norrman | Chalmers University of Technology| Sweden:* Stakeholder involvement in sustainability assessment of remediation strategies – method and application	*Marnie McLean | University of Glasgow | UK, Matthijs Bonte | Shell Global Solutions International BV | Netherlands:* Statistical modelling of groundwater contamination monitoring data using GWSDAT: A comparison of spatial and spatiotemporal methods		*Mark Mejac | Ramboll | US:* Enhanced Anaerobic Dechlorination of TCE via Recirculation and Batch Injection Pilot Systems near São Paulo, Brazil	*Jarno Laitinen | Ramboll Finland Oy | Finland:* Field scale comparison of four passive sampling techniques for monitoring contaminant flux in groundwater CVOC plumes
	Edward Gatliff | Applied Natural Sciences, Inc. | US: PHYTO-INTEGRATED® Remediation: Expanding Phytoremediation by Combining Engineering, Treatment Media & Vegetation		*Lars Rosén | Chalmers University of Technology | Sweden:* Can sustainable remediation be efficient and effective?	*Gary Wealthall | Geosyntec Consultants | UK:* Making sense of environmental big data: applications for the sustainable management of contaminated soil and groundwater		*Neda Amanat | University of Rome "La Sapienza" | Italy:* Comparative evaluation of the polyhydroxylalkanoates (phas) fermentability from different sources for bioremediation applications	*Julien Michel | INERIS | France:* Contaminant mass flux measurement in groundwater with passive samplers coupled with flowmeter measurements
	Karen Van Geert | Arcadis Belgium & Dirk Dubin | bio-2clean bvba | Belgium: Phytoremediation: a practical guideline with decision tools for design, implementation, maintenance and monitoring		*Arnout Soumillion | Witteveen+Bos Belgium NV | Belgium:* Relieving community stress related to soil remediation by performing an elaborated on-site GC-MS air monitoring	*Claire Faucheux | Geovariances | France:* Integrated implementation of the environmental database platform EQuIS and the geostatistical software Kartotrak to perform pollution characterization and to design the remediation of industrial sites		*Pieterjan Waeyaert | JAN DE NUL GROUP | Belgium:* Enhanced reductive dechlorination of PCE and TCE in a source zone via recirculation: pilot test and results	*Bert Van Goidsenhoven | OVAM - Public Waste Agency of Flanders | Belgium:* Pollution flux measurements as part of risk assessment for the spreading of groundwater pollution
15:30 – 16:00	Coffee break						

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
16:00 – 17:30	4c2 Innovative technologies for treating PFAS (2)	Legal 4 5aSps4 Technician meets lawyer	4a6 Advances in *in situ* chemical oxidation (ISCO)	2d2 Human health and environmental risk assessment: framework, tools and practice	7cSps Beneficial and Nature-Based Sediment Use as a Resource for Circular Economy	4b3 Physical treatment	7a1 Circular land use and brownfield regeneration
THUR	**Chair:** **Joerg Frauenstein**	**Chair:** **Mark van Straaten**	**Chair:** **Renato Baciocchi**	**Chair:** **Johannes Lijzen**	**Chair:** **Luca Sittoni**	**Chair:** **Tim Grotenhuis**	**Chair:** **Hans van Duijne**
	Jürgen Buhl | Cornelsen Umwelt GmbH | Germany: Technical Solution for the Removal of PFAS from Water	*Rogier De Waele | GreenSoil International B.V. | Netherlands:* Bio-engineering solutions as catalyst for redevelopment of impacted sites *Karen Van Geert | ARCADIS | Belgium , Els Desair | Just Business Law | Belgium:* Bioengineering as solution for conflicting site clean-up and windmill constructions *Geert De Buysscher | GreenSoil International B.V. | Netherlands:* Ramboll and GreenSoil unlock development potential of a chlorinated solvent impacted land, using enhanced bioremediation techniques *Martijn van Paassen | GreenSoil International B.V. | Netherlands:* Acquisition of liability becomes possible through the use of an integral cyclical design *Domenico Fracchiolla | Ramboll Italy S.r.l. | Italy: 5A-01: Application of environmental forensic investigations to define the allocation of liabilities in insurance claims* *Sébastien Kaskassian | Tauw France | France:* Mass balance of a chlorinated solvent source zone: evaluation of uncertainties to secure remediation *contracting terms* *Willem Hendriks | Witteveen+Bos | Netherlands: From the perspective of the soil-expert: how to stimulate the development of brownfields* <u>Panel Discussion</u> *Martin Slooijer | GreenSoil International B.V. | NL* *Karen Van Geert | ARCADIS | BE* *Geert De Buysscher | Ramboll | BE* *Vincent Breij | Bodembeheer Nederland | NL* *Els Desair | Just Business Law BE*	*Laura Simone | Arcadis Germany GmbH | Germany:* ISCO with fracturing: challenges of full-scale application at an operative site	*Johannes Lijzen | RIVM | Netherlands:* Mixture exposure to PFAS: A Relative Potency Factor approach	*Luca Sittoni | EcoShape / Deltares | Netherlands*	*Victor Magar | Ramboll | US:* Sustainable sediment solutions: Stabilization of contaminated sediment	*Thomas De Romagnoli | Brussels Environment | Belgium, Pieter Schrooten | Cornet & Renard | Belgium:* Circular land use: every step counts
	Gareth Leonard | REGENESIS | UK: *In situ* remediation of PFAS using Colloidal Activated Carbon: A review of multiple case studies		*Filip Sanders | Witteveen+Bos Belgium NV | Belgium:* The use of *in-situ* chemical oxidation (ISCO): the application of ozone in combination with hydrogen peroxide	*Charline Darracq | ARCADIS France:* Polluted sites. French methodology, Example of a Best Practice		*Aurora Santos | Universidad Complutense de Madrid | Spain:* Remediation of a site polluted with lindane wastes: soil flushing pilot test	*Claire Faucheux | Geovariances | France, Coline Eychène | Soltracing | France:* Geochemical background over the Parisian Basin: from the setting up to the practical use for circular reuse of excavated soils
	Aurélien Vandekerckhove | Haemers Technologies | Belgium: Perfluoroalkyl and Polyfluoroalkyl substances in the environment: origins and feasability in thermal desorption		*Daniel Leigh | PeroxyChem Environmental Solutions | US:* Evaluation of Potassium Persulfate as an ISCO Based Permeable Reactive Barrier for Treatment of Comingled Contaminated Plumes	*Glauco Giordano, Jacek Wojciechowski | ARCADIS Sp. z o.o. | Poland:* How to deal with a "cocktail" of contaminants - Risk Assessment as a key tool for effective Remedial Strategy implementation in the new regulatory framework		*Dirk Van Look | RSK Benelux | Belgium:* *In-situ* zinc precipitation using inorganic sulphides	*Petr Klusáček | Academy of Sciences of the Czech Republic:* Challenges of brownfields regeneration for housing needs in urban space (case study area: Brno, a city in the Czech Republic)
	Rick Parkman | AECOM UK | UK: Electrochemical Oxidation Pilot Reactor Demonstration Project, Coupling Technology for PFAS Destruction		*Clotilde Johansson | SERPOL | France:* Oxidation of PAHs and their by-products (polar pacs) in the saturated zone of DNAPL-contaminated sub-soils batch and column experiments	*Stien Van Gestel | AECOM Belgium BVBA:* Developing a Flemish risk assessment tool for contaminated sediments		*Romain Aranda | BRGM; I2M, Université de Bordeaux | France:* Using the blocking effect of foam for remediation of high permeability contaminated aquifers	*Karol Pawelczyk | AECOM | Poland:* Remediation strategy for Gdansk Shipyard as an example of brownfield management in Poland
	Scott Grieco | JACOBS | US: PFAS Treatment of Soil: Demonstration of Multiple Pilot Tests		*Uri Stoin | Alpha Cleantec | Switzerland:* Superoxide radical as a green reagent and an ultimate solution for soil and water contamination	*Kurt Bouckenooghe | ANTEA Belgium nv:* Vapor intrusion study in a densely populated residential area (Mechelen, Belgium) impacted by a soil and groundwater pollution of turpentine and chlorinated ethenes beneath private homes		*Reinhard De Cleene | DEME Environmental Contractors | Belgium:* Remediation of a chemical waste landfill by means of immobilisation	*Eddy Wille | OVAM | Belgium:* Rawfill-project: Innovative characterization(or investigation) of landfills and smart decision-making as part of the circular economy
19:30 – 22:30	Conference Dinner at HORTA						

Time / Room	Okapi 2	Okapi 3	Gorilla 1	Gorilla 3	Gorilla 5	Darwin Hall	Okapi 1
FRIDAY, 24 May							
09:00 – 10:30	4a9 Advances in nanoremediation technologies (1)	4d2 Ecological engineering and nature based solutions	5c1 Sustainable remediation	6dSps Exploring care, knowledge and agency as levers to Soil+Land stewardship	2dSps Towards a decent and efficient procedure for groundwater quality assessment	5b3 Remediation goals and strategies (3)	
FRIDAY	**Chair: Johan Gemoets**	**Chair: Michel Chalot**	**Chair: Paul Bardos**	**Chair: Bernard Vanheusden**	**Chair: Frank Swartjes & Renato Baciocchi**	**Chair: Jing Song**	
	Jan Slunsky | LAC, s.r.o. | Czech Republic: Application of the novel sulfidated iron nanoparticles (S-nZVI) on a site heavily polluted by trichloroethene (TCE)	*Mathieu Scattolin | Mines Saint-Etienne | France:* Use of organic amendment and endomycorrhizal fungi for steel slags phytostabilization	*Tomer Ash | WSP | Israel:* Gone with the wind – Soil gas diffusion to street level mitigation plan during tunnel excavation in the TLV LRT Red Line project	*Co-chairs: Nele Bal (OVAM - Belgium)* *Ellen Luyten* *Bernard Vanheusden | Hasselt University | Belgium* *Philippe Vandenbroeck*: Introduction to the topic and lessons learnt so far	*Frank Swartjes:* *Setting the scene* *Charlotta Tiberg:* The importance of understanding the chemistry in groundwater risk assessment – Arsenic as an example *Peter Nadebaum | GHD Pty Ltd | Australia:* Natural source zone depletion (NSZD) in groundwater management *Hans Slenders:* Groundwater quality assessment from an area-wide perspective *Renato Baciocchi | University of Rome Tor Vergata | Italy:* The vapor intrusion pathway from petroleum contaminated groundwater *Dietmar Mueller-Grabherr:* What European Directives want from us – "Good status" – going beyond good quality?	*Huub Rijnaarts, Dilan Aydin | Wageningen University | Netherlands:* From Stand-and-Hold towards Enhanced Bioremediation: Bioremediation and 3D modelling at a former manufactured gas plant in Utrecht, the Netherlands	
	D. Baragaño | University of Oviedo | Spain: Comparing zero valent iron, magnetite and goethite nanoparticles to remediate concurrent inorganic and organic pollution in brownfield soil	*Dirk Dubin, Mario Clemmens | bio2clean bvba | Belgium:* Bacteria-assisted phytoremediation for soils and groundwater polluted with organics	*Pär-Erik Back | Swedish Geotechnical Institute | Sweden:* Do we have sufficient information to assess the sustainability?			*Johan van Leeuwen | Deltares | Netherlands:* From contaminated site containment and pump and treat, towards less intensive site management through biodegradation	
	Oriol Gibert Agulló | UPC | Spain: Synthesis, characterization and reactivity of hydroxyapatite coatings deposited on calcium carbonate micro- and nano-particles for the removal of heavy metals from contaminated water	*Thomas Wagner | University of Amsterdam & Wageningen University | Netherlands:* Hybrid constructed wetlands for the pre-treatment of cooling tower water prior to desalination	*Paul Bardos | R3 Environmental Technology Ltd | UK:* How SuRF-UK's detailed checklist of sustainability assessment criteria / indicators has been used to date in the UK and elsewhere and its 2019 revision			*Wolf Depraetere | Belgium:* Blue Gate	
	Chapman Ross | Geosyntec Consultants Inc. | US: Full-Scale *In Situ* Remediation of Chlorinated Solvents in Clay Till by Microscale ZVI Emplaced by Direct Push Jet Injection: Results after 4 Years	*Alette Langenhoff | Wageningen University & Research | Netherlands:* Fate and distribution of pharmaceutically active compounds in mesocosm constructed wetlands	*Theo Ferreira | GeoRem Environmental Contractors | South Africa:* Applying sustainability principles in evaluating alternatives for remediation projects in South Africa			*Goedele Verreydt | iFLUX | Belgium:* Flux-controlled remediation & risk management: strategy and examples	
	Vicenç Martí |UPC | Spain: Comparative adsorption of groundwater contaminants onto different sizes of particles obtained by two top-down approaches	*Marc Viñas | IRTA| Spain:* Sustainable organic subproducts to enhance denitrification in constructed wetlands treating highly nitrate polluted leachates from nurseries	*Luca Franceschini | Chalmers University of Technology | Denmark:* Sustainability Assessment of *In-Situ* Remediation Techniques Using the SCORE Method			*Oliver Maurer | Germany:* Sustainable Remediation in the Latin American Context	

10:30 – 11:00	Coffee break
11:00 – 12:00	Closing Session in the Queen Elisabeth Hall, Future outlook, Poster awards
12:30	Excursions from conference venue