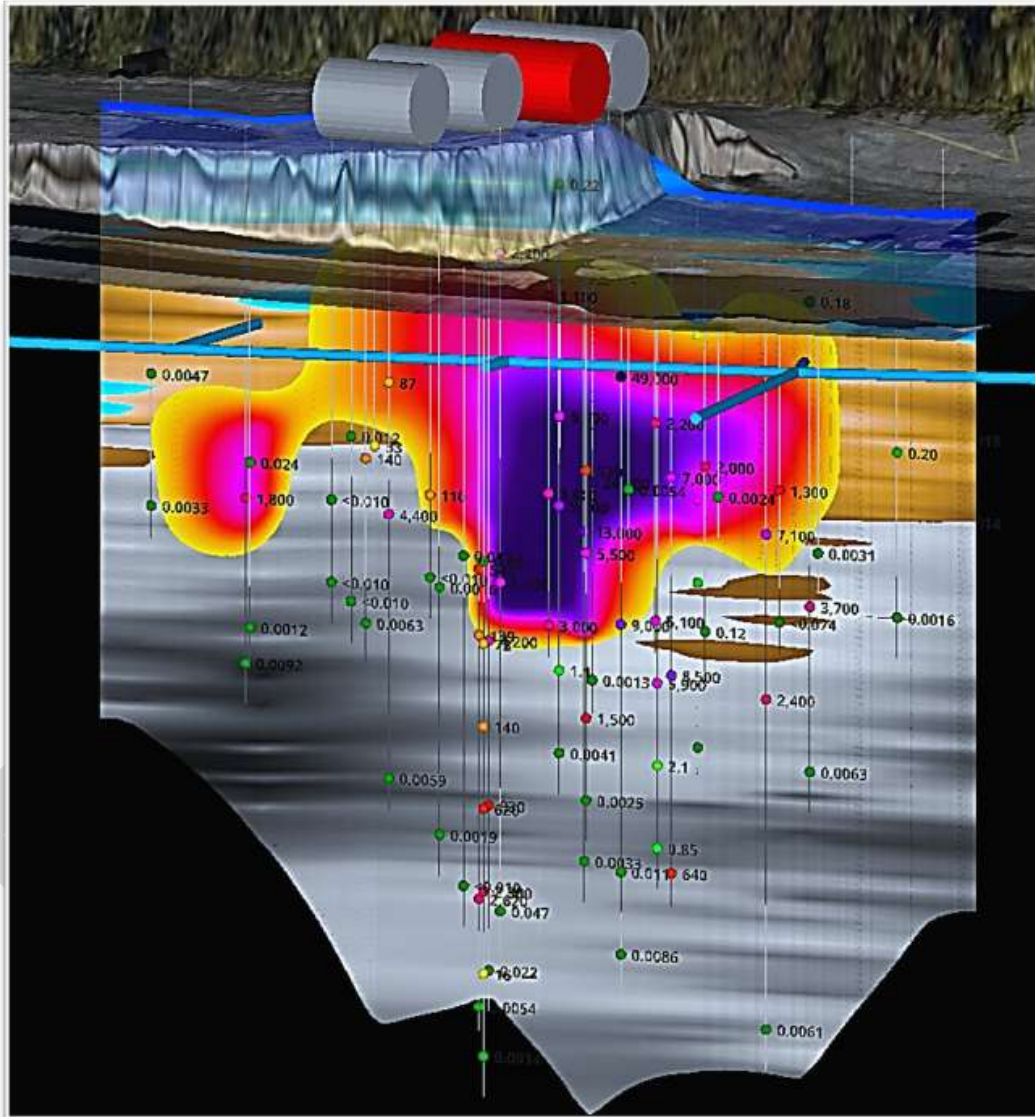


PROGRAM & EXHIBITION

18-22 September 2023



39 High level sessions






























15 Training courses
































2 Live Demo

1 Sustainability – 24h

<https://www.remtechexpo.com/it/remtech-europe/remtech-europe>



TIME ZONES	Mon 18 Sept ONLINE	Mon 18 Sept ONLINE	Tue 19 Sept ONLINE	Wed 20 Sept ONLINE
 CEST 09:00-11:00  CST 15:00-17:00  IST 12:30-14:30  EDT 03:00-05:00  BRT 04:00-06:00	 EUSO Dashboard		 SUSTAINATHON Sustainability the road to global value	 CLAIRE LEADING SUSTAINABLE LAND REUSE UK approach to risk assessment for coal mine gas emissions (10)
 CEST 11:30-13:30  CST 17:30-19:30  IST 15:00-17:00  EDT 05:30-07:30  BRT 06:30-08:30	for Soil Monitoring Directive and Clean Soil Outlook 2024		Sustainathon (24 hours from 14:00 CEST to 14:00 CEST) (3)	 CLAIRE LEADING SUSTAINABLE LAND REUSE Applied Sustainability Assessment (13)
 CEST 14:30-16:30  CST 20:30-22:30  IST 18:00-20:00  EDT 08:30-10:30  BRT 09:30-11:30	 US Army Corps of Engineers Risk Assessment Environmental Evaluation (2)	 SUSTAINATHON Sustainability the road to global value Sustainathon (24 hours from 14:00 CEST to 14:00 CEST) (3)	 ASTM INTERNATIONAL Helping our world work better 14:30 Sediment Background Concentrations (4) 15:30 Total PFAS, what does it mean? (5) 16:30 Adaptation to climate change (6) 17:30 Environmental Liability Disclosure (7) 18:30 PFAS Site Screening and Initial Characterization (8) 20:00 ASTM Environmental, Social, and Governance (ESG) (9)	 SERDP DOD • EPA • DOE ESTCP Tools and Approaches to Quantify PFAS F&T (17)
 CEST 17:00-19:00  CST 23:00-01:00  IST 20:30-22:30  EDT 11:00-13:00  BRT 12:00-14:00				 SERDP DOD • EPA • DOE ESTCP In Situ Post-Remediation Performance Evaluation (20)

TIME ZONES	Thu 21 Sept EUROPE ROOM – 2 ^o floor	Thu 21 Sept 13:50 - Pavillion 6	Fri 22 Sept WHITE ROOM- 1 ^o floor		Fri 22 Sept EUROPE ROOM – 2 ^o floor
 CEST 09:00-11:00  CST 15:00-17:00  IST 12:30-14:30  EDT 03:00-05:00  BRT 04:00-06:00	Nature based solutions  23	<div style="border: 2px dashed red; padding: 10px;"> <p style="text-align: center;">13:50 CEST Pavillion 6</p> <p style="text-align: center;">LIVE DEM</p> <p style="text-align: center;">DAY 2</p> </div>	  Zero pollution-ecotoxicology for safe and sustainable remediation  26		Soil Remediation  33
 CEST 11:30-13:30  CST 17:30-19:30  IST 15:00-17:00  EDT 05:30-07:30  BRT 06:30-08:30	Persistent organic Pollutants  25		Thu 21 Sept ONLINE 17:00-19:00  Contaminants of Emerging Concern  29	High Resolution Site Characterization  36	Fri 22 Sept ONLINE Groundwater sampling   37
 CEST 17:00-19:00  CST 23:00-01:00  IST 20:30-22:30  EDT 11:00-13:00  BRT 12:00-14:00	Heavy metals and mining  31	Thu 21 Sept ONLINE 20:00-22:00  ITRC Microplastics Guideline  32		Fri 22 Sept ONLINE Thermal Desorption   39	

MONDAY 18 September

SESSION 1

EUSO Dashboard for Soil Monitoring Directive and Clean Soil Outlook 2024

Mon 18 SEPTEMBER 09:00 – 13.00 CEST (ONLINE)



SESSION 2

Risk Assessment Environmental Evaluation

Mon 19 SEPTEMBER 14.30 – 19.00 CEST (ONLINE)



US Army Corps
of Engineers®

SESSION 3

Sustainathon

Mon 18 SEPTEMBER 14.00 CEST – Tue 19 SEPTEMBER 14.00 CEST (ONLINE)

TUESDAY 19 September

SESSION 3

Sustainathon

Mon 18 SEPTEMBER 14.00 CEST – Tue 19 SEPTEMBER 14.00 CEST (ONLINE)



SESSION 4

ASTM E3242 - Standard Guide for Determination of Representative Sediment Background Concentrations

Tue 19 SEPTEMBER 14.30 – 15.30 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

SESSION 5

Total PFAS, but what does that mean and how do you quantify it?

Tue 19 SEPTEMBER 15.30 – 16.30 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

SESSION 6

Adaptation to climate change: how to address climate impacts such as flooding, wildfires, extreme temperature, and economic disparities

Tue 19 SEPTEMBER 16.30 – 17.30 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

SESSION 7

Environmental Liability Disclosure

Tue 19 SEPTEMBER 17.30 – 18.30 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

REMTECH Europe

SESSION 8

PFAS Site Screening and Initial Characterization

Tue 19 SEPTEMBER 18.30 – 19.30 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

SESSION 9

Environmental, Social, and Governance (ESG) Disclosure Related to Climate and Community

Tue 19 SEPTEMBER 20.00 – 22.00 CEST (ONLINE)



ASTM INTERNATIONAL
Helping our world work better

WEDNESDAY 20 September

SESSION 10

UK approach to risk assessment for coal mine gas emissions

Wed 20 SEPTEMBER 09.00 – 11.00 CEST (ONLINE)



SESSION 11

Sediment management and remediation

Wed 20 SEPTEMBER 09.00 – 11.00 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 12

Landfills management

Wed 20 SEPTEMBER 09.00 – 11.00 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 13

Applied Sustainability Assessment: Case Study Walk Through

Wed 20 SEPTEMBER 11.30 – 13.30 CEST (ONLINE)



SESSION 14

In situ remediation techniques

Wed 20 SEPTEMBER 11.30 – 13.30 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 15

Sustainable remediation

Wed 20 SEPTEMBER 11.30 – 13.30 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 16

Live Demo - Day 1

Wed 20 SEPTEMBER 13.50 – 16.20 CEST (Pavillion 6 - hybrid)



REMTECH Europe

SESSION 17

Tools and Approaches to Quantify PFAS Fate and Transport in Subsurface Environments

Wed 20 SEPTEMBER 14.30 – 17.00 CEST (ONLINE)



SESSION 18

Life CAPTURE - Characterisation and risk assessment of PFAS contaminated sites for an efficient remediation design

Wed 20 SEPTEMBER 14.30 – 19.00 CEST (BLUE ROOM 1st floor - hybrid)



SESSION 19

Groundwater remediation

Wed 20 SEPTEMBER 14.30 – 16.30 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 20

In Situ Post-Remediation Performance Evaluation

Wed 20 SEPTEMBER 17.00 – 19.30 CEST (ONLINE)



SESSION 21

DNAPL and chlorinated compounds treatment

Wed 20 SEPTEMBER 17.00 – 19.00 CEST (WHITE ROOM 1st floor - hybrid)

THURSDAY 21 September

SESSION 22

PFAS models and microcosm studies

Thu 21 SEPTEMBER 09.00 – 11.00 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 23

Nature based solutions

Thu 21 SEPTEMBER 09.00 – 11.00 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 24

PFAS soil remediation

Thu 21 SEPTEMBER 11.30 – 13.30 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 25

Persistent organic Pollutants

Thu 21 SEPTEMBER 11.30 – 13.30 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 26

Live Demo - Day 2

Thu 21 SEPTEMBER 13.50 – 16.20 CEST (Pavillion 6 - hybrid)



SESSION 27

Contaminated sites management

Thu 21 SEPTEMBER 14.30 – 16.30 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 28

PFAS groundwater remediation

Thu 21 SEPTEMBER 14.30 – 16.30 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 29

Contaminants of Emerging Concern

Thu 21 SEPTEMBER 17.00 – 19.00 CEST (ONLINE)

SESSION 30

LNAPL and hydrocarbons remediation

Thu 21 SEPTEMBER 17.00 – 19.00 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 31

Heavy metals and mining

Thu 21 SEPTEMBER 17.00 – 19.00 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 32

ITRC Microplastics Guideline

Thu 21 SEPTEMBER 20.00 – 22.00 CEST (ONLINE)



FRIDAY 22 September

SESSION 33

Soil remediation

Fri 22 SEPTEMBER 09.00 – 11.00 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 34

Zero pollution- ecotoxicology for safe and sustainable remediation

Fri 22 SEPTEMBER 09:00 – 13.00 CEST (WHITE ROOM 1st floor - hybrid)

SESSION 35

Aeriforms measurements and management

Fri 22 SEPTEMBER 11.30 – 13.30 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 36

High Resolution Site Characterization

Fri 22 SEPTEMBER 14.30 – 16.30 CEST (WHITE ROOM 1st floor - hybrid)



SESSION 37

Groundwater sampling

Fri 22 SEPTEMBER 14.30 – 16.30 CEST (ONLINE)

SESSION 38

Wastewater treatment and remediation challenges

Fri 22 SEPTEMBER 14.30 – 17.30 CEST (EUROPE ROOM 2nd floor – hybrid)

SESSION 39

Thermal Desorption

Fri 25 SEPTEMBER 16.30 – 18.30 CEST (ONLINE)



Credit for the cover image: **JIM DEPA – JAKOB & HEFNER**

DRAFT

REMTECH Europe

CONFERENCE

RemTech Europe, International Conference and Exhibition on land and water remediation markets and technologies, is scheduled for 18-22 September 2023.

The first two days of the conference **18-19 September** will be **fully digital**, and broadcasted in streaming. The other three days **20-22 September** will be **hybrid** so in presence but also broadcasted through Remtech platform. Anybody in the world will be able to follow every session for all the 5 days.

The aim of the Conference is to share information on knowledge, innovation and case histories, to encourage the development of remediation processes and the application of new and sustainable technologies and bring together suppliers and problem owners of available services and technologies. RemTech Europe also provides a platform for discussion between stakeholders.

The agenda is rich and is designed to promote the sharing of knowledge and intercommunication between all relevant parties. It involves all leading European stakeholders.

The annual RemTech Europe conference will take a snapshot of the European market and the development trends. Participation is **free of charge**.



EXHIBITION

Remtech Europe will take place in the framework of RemTech Expo which is the European Environmental Technological Hub, specialized on the issues of rehabilitation, regeneration and sustainable development of territories and meets every year in September in Ferrara, Italy (20-22 September 2023).

RemTech Expo is not only a moment of representation of the current state and of sharing future perspectives, it is above all a network of international experts, operating on a permanent basis to give to public and private sector the opportunity to confront each other in a constructive and effective way by developing thoughts and projects in support of Europe. The event is organized every year in

collaboration with the main international authorities. The Hub is characterized by a qualified and broad community, made up of representatives of the public administration, supervisory bodies, private companies, innovative start-ups, universities, research centers, trade associations, professionals who develop ideas and proposals in the context of moments of discussion and intense networking, conference sessions, workshops, working groups, refresher courses, workshops for schools, technological pilot tests and cultural evenings. It consists of ten thematic segments and ten public-private Scientific Technical Committees for a total of over five hundred experts. The companies involved are over three hundred (300) among the most significant of the various supply chains involved. There are two hundred (200) congressional proposals and appointments, both national and international, with two thousand (2,000) between "Ambassadors" and speakers. One hundred (100) countries are represented, from all five (5) continents.



WHO WILL PARTICIPATE?

RemTech Europe will draw leaders and key stakeholders from academia, government, regulatory community as well as site owners, private consulting agencies and various other environmental professionals. Here are just a few of the job titles that you will find: CEOs, Chief Scientist, Chief Hydrogeologist, Director of Environmental Projects, Drinking Water Treatment Engineer, Environmental Chemist, Environmental Remediation Engineer, Environmental Project Scientist, Field Environmental Engineer, Principal Geochemist, Project Director, Regulator, Remediation Engineer, Research Microbiologist, Restoration Project Manager, Senior Engineering Geologist, Toxicologist, Vice President of R&D, Wastewater Treatment Engineer



HOW TO PARTICIPATE TO ONLINE AND HYBRID SESSIONS?

Participation as attendant is free upon registration for everybody. You may register yourself in your favorite sessions, submitting your details in the **Google Modules** provided not later than **11 September** before the starting of Remtech Europe. Our secretariat will send you the link and the password to connect at the email you provided. For the Certificate of Attendance, it is necessary two months at least. It will be sent to the same email of your registration.

ITRC INTERSTATE COUNCIL OF REGULATORY TOXICOLOGISTS
REMTECH Europe
Microplastics

ITRC Microplastics Guideline

Date: from 20:00 CEST of 21 September 2023 - to 22:00 CEST of 21 September 2023
Event address: Online (ZOOM platform) with free entrance

First Name *

Testo risposta breve

Last (Family) Name *

Testo risposta breve

HOW TO PARTICIPATE IN PRESENCE?

For who is joining us physically us in Ferrara (Italy), you have to register here not later than **18 September 2023** <https://ticket.remtechexpo.com>. **Don't wait till the last week.** You will then have to print your tickets (minimum quality 300 dpi) and bring them in Ferrara and in this way you would avoid the queue at the desk, going directly to the entrance gate. This is your **FREE TICKET**. You may also register on site but in this way, you have to pay a secretariat fee of 15 €/day. If you come by car, the parking has a cost of 7€/day. Exhibitors and sponsors would park for free.

E-mail *

remtecheurope@gmail.com

Soggetto partecipante / Attendee *

Persona fisica / Private Azienda / Company

Nome / Name *

Nome / Name campo obbligatorio / mandatory field

Cognome / Surname *

Cognome / Surname campo obbligatorio / mandatory field

Nazionalità / Nationality *

NESSUNA OPZIONE

Nazionalità / Nationality campo obbligatorio / mandatory field

Regione / Region * *obbligatori solo in caso di nazionalità ITALIA / mandatory only in case of nationality ITALY*

SCEGLI UNA REGIONE

Regione / Region campo obbligatorio / mandatory field

Province / Province * *obbligatori solo in caso di nazionalità ITALIA / mandatory only in case of nationality ITALY*

SCEGLI UNA PROVINCIA


Città / City * *obbligatori solo in caso di nazionalità ITALIA / mandatory only in case of nationality ITALY*

SCEGLI UN COMUNE

Registrazione avvenuta con successo

Grazie **MARCO** per esserti registrato all'evento "Remtech Expo 2023", puoi già ora ottenere il biglietto da questa pagina cliccando l'apposito pulsante oppure scaricarlo dalla mail che ti abbiamo inviato all'indirizzo indicato (controlla anche nella cartella spam).

*Thank you **MARCO** for registering for the "Remtech Expo 2023" event, you can already get the ticket from this page by clicking the appropriate button or download it from the email we sent you to the address indicated (also check your spam folder).*

 [SCARICA IL BIGLIETTO / DOWNLOAD TICKET](#)

[← TORNA ALLA HOME](#)

THEN PRINT YOUR FREE TICKET

**OPERATORE /
PROFESSIONAL**



**20-22
SETTEMBRE 2023**

20-22 SEPTEMBER 2023

remtechexpo.com

**STAMPA IL TUO
BIGLIETTO
ED ENTRA SUBITO
IN FIERA
PRINT YOUR TICKET
AND VISIT
THE SHOW**

**BIGLIETTO VALIDO PER 3
GIORNI, 1 INGRESSO AL
GIORNO (sono ammessi fino
a due rientri giornalieri).**

**Il biglietto è strettamente
personale e non cedibile e
deve essere conservato per
tutta la durata dell'evento. Il
personale all'ingresso potrà
effettuare controlli casuali
attraverso la verifica di un
documento di identità.**

*This ticket is strictly personal
and non-transferable and must
be kept for the entire duration of
the event. The staff at the
entrance will be able to carry
out random checks by verifying
an identity document.*

ATTENZIONE

Il biglietto deve essere stampato in buona qualità e con una risoluzione di almeno 300dpi (a colori o in bianco e nero). Usando il biglietto lei accetta di osservare le norme di accesso al quartiere fieristico. I biglietti non possono essere alterati o copiati e perdono validità se il codice risulta danneggiato e non leggibile. Per questo vanno conservati con cura.

NOTE

Your card must be printed in good quality and with a resolution of at least 300dpi (in color or black and white). By using the ticket, you agree to observe the rules of access to the fairgrounds. Tickets cannot be altered or copied and lose validity if the code is damaged and unreadable. This is why they must be kept with care.

ORGANIZE YOUR TRIP TO FERRARA (GMaps

<https://goo.gl/maps/nKBmiF9FqVUzYToe9>)

From Bologna Airport (BLQ)

Bologna's Guglielmo Marconi Airport is 45 km from the Ferrara Exhibition Centre.

'Ferrara Bus&Fly' shuttle bus service and arrive in Ferrara in just 60 minutes. The transfer to and from the airport includes 8 trips per day. For more information, visit <http://www.ferrarabusandfly.it/en/> or call +39 333 2005157. Cost is 17€ online, 20€ on board

Taxi is the fastest way as it takes 30 minutes and costs around 80-100 € (<http://www.taxiferrara.it/>, tel. +39 0532 900900)

Train takes from 35 to 50 minutes and is the cheapest way, the cost of regional train from Bologna to Ferrara is 5,20 € with more than 30 runs per day (<https://www.trenitalia.com/en.html>). To go from the Bologna Airport to the Bologna train station it takes around 25 minutes with the city bus BLQ with a cost of 6,00 €



From Venice Airport (VCE)

Train takes around 1h15 and is the cheapest way, the cost of train from Venezia Mestre to Ferrara is from 9,00 to 23,90 € depending on train type and service. There are more than 30 runs per day (<https://www.trenitalia.com/en.html>). To go from the Venice Airport to the Venezia Mestre train station it takes around 20 minutes with the ATVO Airport Express Bus or Line 15 with a cost of 9,00 €.

From Milan Malpensa Airport (FCO)

Train takes around 2h20 and is the cheapest way, the cost of train from Milano Centrale to Ferrara is from 25,00 to 50,00 € depending on train type and service. There are more than 20 runs per day (<https://www.trenitalia.com/en.html>). To go from the Milan Malpensa Airport to the Milano Centrale train station it takes around 50 minutes with the Malpensa Express Train with a cost of 13,00 € (<https://www.malpensaexpress.it/en/>).

From Rome Fiumicino Airport (FCO)

Train takes around 2h50 and is the cheapest way, the cost of train from Roma Termini to Ferrara is from 50,00 to 75,00 € depending on train type and service. There are more than 20 runs per day (<https://www.trenitalia.com/en.html>). To go from the Rome Fiumicino Airport to the Roma Termini train station it takes around 45 minutes with the Terravision Bus with a cost of 6,00 € (https://www.terravision.eu/airport_transfer/bus-fiumicino-airport-rome/?noredirect=en_US).

From Bergamo Orio al Serio Airport (BGY)

Train takes around 3h20 and is the cheapest way, the cost of train from Bergamo to Ferrara is from 28,00 to 60,00 € depending on train type and service. There are more than 20 runs per day (<https://www.trenitalia.com/en.html>). To go from the Bergamo Orio al Serio Airport to the Bergamo train station it takes around 15 minutes with the Airport Bus with a cost of 2,60 € (<https://www.atb.bergamo.it/en>).

From Munchen Airport (MUC)

Train takes around 7h and is the cheapest way, the cost of train from Munchen HBF to Ferrara is from 45,00 to 60,00 € depending on train type and service. There are 3 runs per day (<https://www.trenitalia.com/en.html>). To go from the Munchen Airport to the Munchen HBF train station it takes around 40 minutes with different means of transport and with a cost of 11-15 € (<https://www.munich-airport.com/public-transport-260822>).

Where to sleep? Suggested accomodation

CONVENTIONS RESERVED



HOTEL	SINGOLA	DUS	DOPPIA	TRIPLA	CONTATTI
	<i>SINGLE</i>	<i>DOUBLE SINGLE USE</i>	<i>DOUBLE</i>	<i>TRIPLE</i>	
HOTEL DE PRATI	€ 72,00	€ 98,00	€ 102,00		info@hoteldeprati.com +39 0532 241905
LUCREZIA BORGIA	€ 65,00	€ 75,00	€ 94,00	€ 130,00	info@hotellucreziaborgia.it +39 0532 909033
HOTEL TOURING	Discount of 10% for booking from the site www.touringfe.it and from the phone Discount code "RemTech"				info@hoteltouringfe.it +39 0532206200
B&B NETTUNO	€ 69,00	€ 69,00	€ 94,00		ferrara@hotelbb.com +39 0532 977155
HOTEL CARLTON	Discount 10%, Indicate discount promocode "RemTech" on site www.hotelcarlton.net				info@hotelcarlton.net +39 0532 211130
HOTEL IL DUCA D'ESTE	€ 75,00	€ 75,00	€ 95,00	€ 130,00	info@ilducadeste.it +39 0532 977676
HOTEL EUROPA	€ 67,00	€ 82,00	€ 100,00		info@hoteleuropaferrara.com +39 0532 205456
HOTEL NAZIONALE	€ 95,00	€ 145,00	€ 145,00		info@hotelnazionaleferrara.it +39 0532 243596
HOTEL OROLOGIO		€ 160,00	€ 190,00		info@hotelorologio.com +39 0532 769576
RADISSON HOTEL		€ 120,00	€ 135,00		info.ferrara@radisson.com +39 351 6645647

(#) TOURIST TAX EXCLUDED

At the moment of the booking, you are request to refer to the REMTECH EXPO 2023 AGREEMENT

For further information, please contact the Organizing Secretary: Tel. + 39 0532 900713

How to arrive from downtown Ferrara to the conference venue

FREE REMTECH COUCH

The most convenient way is the couch of Remtech, that will leave from the city centre, pass to the train station than it will arrive to the venue. Frequency is every 50 minutes starting from 8:10 and it is free. The bus stop named "**Stazione Ferroviaria**" is located at the exit of the railway station, on the left side, next to the bike parking (<https://goo.gl/maps/Bkzi57UHhduQ63Vy5>).

The bus stop named "**Castello Estense**" is in the city centre in Viale Cavour, in front of the Hotel Touring, behind the public gardens (<https://goo.gl/maps/M4AKxc9kYbqXpXrZA>).

You can easily recognize the shuttle by the RemTech logo.

The timetable could change according to the traffic, best choice is to take the first run.

Castello Estense Hotel Touring	Stazione Ferroviaria Railway Station	Quartiere Fieristico Exhibition center
8.15	8.25	8.40
9.00	9.10	9.25
9.45	9.55	10.15
10.35	10.45	11.00
-	11.15	11.30
-	11.45	12.00
-	12.15	12.30
-	12.45	13.00
-	13.15	13.30
-	13.45	14.00
-	14.15	14.30
-	14.45	15.00
-	15.15	15.30
-	15.45	16.00
-	16.15	16.30
-	16.45	17.00
-	17.15	17.30
-	17.45	18.00
18.20	18.30	18.45
19.05	19.15	19.30
19.55	20.05	-



BUS n.11

Bus n.11 from the Train Station "**Stazione FS**" (<https://goo.gl/maps/W3cvZhctmL6CCgFT8>) or from the Estense Castle "**Cavour Giardini**" stop (<https://goo.gl/maps/YasF8mKbm3das3DG8>) in the direction "**Chiesuol del Fosso**". The nearest stop to Ferrara fiere is "**Centro Congressi**" (<https://goo.gl/maps/NzsNWCPR4Fgvax6P7>) at 500 meters from FerraraFiere (<https://www.tper.it/fe-11>), cost is **1,50 €**. Runs from the central station (from Cavour Giardini add 5 minutes) 05.17 06.15 06.30 06.54 07.09 07.24 07.47 08.12 08.37 08.57 09.17 09.37 09.57 10.17 10.37 10.57 11.17 11.37 11.57 12.17 12.37 12.57 13.17 13.37 13.57 14.17 14.37 14.57 15.17 15.37 15.57 16.17 16.37 16.57 17.17 17.37 17.57 18.17 18.37 18.57 19.17 19.37 19.57 20.17 20.31 20.49. Timetable could change.

TAXI

Fastest way from downtown to the venue is the taxi, the cost is around **12,00-15,00 €** and the time is around 10 minutes according to the traffic (<http://www.taxiferrara.it/>, tel. +39 0532 900900)



WALKING

Walking is the most environmental sustainable way to reach the venue. It is 4 km from the City Centre, it takes around 50 min, but it is not suggested in hot hours and when you have luggage with you.

NOT ONLY REMTECH EUROPE – ENJOY FERRARA AND ENJOY ITALY- ACTIVITIES & IDEAS

CYCLETOURISM

Ferrara is the 'Italian city of bicycles'. Flat and surrounded by the water of the river Po and its tributaries, the entire Province of Ferrara is a richly evocative landscape in which land and water are the protagonists. From Cento to Comacchio, from the hinterland to the sea, there are hundreds of kilometres marked by a formidable network of cycling routes that wind between the city and the countryside, between protected oases and villages on the plains. There are simple and evocative routes such as the one along the banks of the Po River with restaurants along the way. The daily bicycle rental is 8 €. [LINK FOR MORE INFO](#)



FERRARA CITY CENTRE IS UNESCO WORLD CULTURAL HERITAGE

Ferrara's historic centre was awarded from UNESCO the prestigious title of 'Renaissance City' in 1995 as an '*admirable example of a city designed in the Renaissance, which preserves its historic centre intact and expresses urban planning canons that have had a profound influence on the development of town planning in the following centuries*'. Some truly characteristic streets such as Via delle Volte, as well as the main square (today Piazza Trento e Trieste), beside which stands the Romanesque-Gothic Cathedral (1135). An extraordinary period began in the 12th century when the Este family settled in Ferrara, with the construction of the Castello Estense (1385), Palazzo Schifanoia (1385) and Palazzo dei Diamanti (1492). <https://whc.unesco.org/en/list/733> Guided tour costi s 12€/person, [LINK FOR MORE INFO](#)



Some truly characteristic streets such as Via delle Volte, as well as the main square (today Piazza Trento e Trieste), beside which stands the Romanesque-Gothic Cathedral (1135). An extraordinary period began in the 12th century when the Este family settled in Ferrara, with the construction of the Castello Estense (1385), Palazzo Schifanoia (1385) and Palazzo dei Diamanti (1492). <https://whc.unesco.org/en/list/733> Guided tour costi s 12€/person, [LINK FOR MORE INFO](#)

THE HEART OF PO DELTA PARK ON HORSEBACK

The Delta breed horses, present at the Spiaggia Romea stud farm and of Camargue derivation, are ideal for peaceful walks immersed in the nature of the Po delta, thanks to their meek and docile temperament. Accompanied by a specialized guide, you can go horseback riding in an environment of extraordinary charm. Cost is 24€ [INFO LINK](#)



THE COMACCHIO'S LAGOONS BY BOAT

Boat trips along the inner waterways of the mirror lagoon, a unique environment and spectacular home to flamingos. The guided tour includes a visit to the fishing stations. Cost is 14€. [INFO LINK](#)



RELAX IN THE BEACHES IN “LIDI FERRARESÌ”

26 km of coast with beaches of white and thin sand, the seven Lidi Ferraresi are an ideal destination for a vacation at the sea with children, for the lover of open air activities and to relax. On its 26 km of coast 7 lidos follow one another: Volano, Nazioni, Pomposa, Scacchi, Porto Garibaldi, Estensi and Spina. All of them are characterized by safe beaches and equipped for families, with golden sand and a sea which reverses gently. [INFO LINK](#)



VISIT BOLOGNA, VENICE, PADUA, FLORENCE, PISA, ROME

All these destinations are easily reachable by train from Ferrara (<https://www.trenitalia.com/en.html>)



Bologna 35 min



Venice 1h15min



Padua 40 min



Florence 1h40min



Pisa 2h30min



Rome 2h50min



SESSION 1

EUSO Dashboard for Soil Monitoring Directive and Clean Soil Outlook 2024

MONDAY 18 SEPTEMBER
09.00 – 13.00 CEST (Central European Summer Time)

ONLINE

Opening

09:00 Inauguration of Remtech Europe 2023

Marco Falconi (Remtech Europe), Christian Wermeille (BAFU), Wouter Gevaerts (NICOLE), Alessandra Zampieri (Director, JRC, European Commission, tbc), Silvia Paparella (Remtech Expo)

09:20 Introduction from the Chairs

Piotr Wojda (JRC) Marco Falconi (Remtech Europe)

09:30 Session 1 “Soil Monitoring Directive and EUSO Dashboard”

- Overview on the proposal Directive (*tbd, Head of Unit, JRC, EC*) (30/40 min)
- The role of EUSO Dashboard in the Soil Directive (*Diana Vieira, Felipe Yunta, Calogero Schillaci, Arwyn Jones, Piotr Wojda, JRC, European Commission*)
- Soil Mission projects (*tbd, Kirsti Loukola-Ruskeeniemi - ISLANDR*)

11:00 Panel discussion, stakeholders questions and wrap up, *Piotr Wojda (EC JRC D3)*

11:15 Coffee break

11:30 Session 2 “Clean Soil Outlook 2024”

- Introduction (*Piotr Wojda, JRC, EC*)
- Sewage Sludge in arable soils, potential heavy metals contamination (*Felipe Yunta JRC, EC*)
- Land Degradation and the SDG 15.3.1 indicator reporting (*Calogero Schillaci JRC, EC*)
- Nature Restoration Law: the use of technosols as soil amendment (*tbd*)

12:45 Discussion and wrap up, *Diana Vieira, Felipe Yunta, Calogero Schillaci, Arwyn Jones, Piotr Wojda (EC JRC D3)*

13:00 End of the session

Register yourself in the Google form <https://forms.gle/vgrRLVy4aLBcHSXW7>



US Army Corps
of Engineers ®

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SESSION 2

Risk Assessment Environmental Evaluation

MONDAY 18 SEPTEMBER
14.30 – 19:00 CEST (Central European Summer Time)

ONLINE

Opening

- 14:30 Introduction from the Chairs**
Edith Martinez-Guerra (USACE), Marco Falconi (Remtech Europe)
- 14:45 Risk assessment environmental evaluation – Part 1**
Speaker to be confirmed (USACE)
- 16:25 Panel discussion**
Edith Martinez-Guerra (USACE)
- 16:35 Coffee break**
- 16:50 Risk assessment environmental evaluation – Part 2**
Speaker to be confirmed (USACE)
- 18:30 Panel discussion**
Edith Martinez-Guerra (USACE)
- 19:00 End of the session**

Register yourself in the Google form <https://forms.gle/f8WMX5zQgn1ebM5V7>

SESSION 3

SUSTAINATHON



Sustainability the road to global value

18-19 SEPTEMBER 2023

From 14.00 (18 September) to 14.00 (19 September) CEST – 24 HOURS

7 REASONS TO ATTEND

ONLINE

RELISH the progress being made towards one, more or all of the 17 UN SDGs by different countries.

ENJOY the variety of approaches and methods being used to deliver and monitor progress on individual targets for specific SDGs.

MANAGE your participation to fit with other commitments over the 24 hours – attend as little or as much of Sustainathon as you want.

TAKE AWAY inspiration and ideas that you can apply in your country, on your projects for your stakeholders.

EXPERIENCE the presentations at a time that suits you – whether you attend live or follow the recorded presentations when it is more convenient for your time zone.










CHAT online with other like-minded practitioners from around the world – during and after the event.

HONOUR those sharing their hard won experience – even if we cannot give them a warm round of applause

To reserve your seat and for the Certificate, register here <https://forms.gle/qRRibSwKWgcaNsci9>

Sustainathon Secretariat: Lana Kukobat – sustainathon2023@gmail.com

Some of the confirmed speakers

Guncha Annageldieva (TM) 	Aktaruzzaman Hasan (BD) 	Sher Shah Khan (PK) 	Sreelakshmi S Menon (IN) 
Diana Gutierrez 	Lisa Kurbiel (US) 	Marija Babović (RS) 	Reinhold Mangundu 
Scott Warner (AU) 	Amaru Aragon (PE) 	Olga Olson 	Vladica Jankovic 
Sawsan Elawady (EG) 	Varsha Ajmera (MY) 	Graeme Warnell (UK) 	Awa Niang Fall (SN) 
Bulat K. Yessekin (KZ) 	James Mwangi Ndiritu 	Juan Ignacio Tuccillo (AR) 	Ange Dorine Irakoze (BI) 
Terry Long (CA) 	Lucila Martelli (AR) 	Oo cheng Keat (MY) 	



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SESSION 4

ASTM E3242 - Standard Guide for Determination of Representative Sediment Background Concentrations

TUESDAY 19 SEPTEMBER

14.30 – 15.30 CEST (Central European Summer Time)

ONLINE

Opening

14:30 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

14:35 ASTM E3242 - Standard Guide for Determination of Representative Sediment Background Concentrations
Eric Litman (Newfields, ASTM International)

15:20 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

15:30 End of the training



Eric Litman

Register yourself in the Google form <https://forms.gle/FUTUK7UFVDzcbYzn7>

BRIEF DESCRIPTION OF THE TRAINING

ASTM E3242 (one of thirteen sediment-focused ASTM guides) is focused on the determination of representative sediment background concentrations used for remedial actions performed under various regulatory programs. This guide provides a framework, including specific statistical and geochemical considerations, as well as case studies, demonstrating the approach to determine representative sediment background concentrations. The presentation will discuss how to apply the guidance to contaminated sediment sites where sediment data have been collected and are readily available, as well as addressing collecting additional data. At many sediments sites, contaminants/chemicals of interest that exceed risk-based thresholds have been identified and the established risk-based thresholds are low enough to pose corrective action implementation challenges, and/or the site is subject to recontamination from ongoing anthropogenic and/or natural sources that are not controlled. In both cases, representative sediment background concentrations are useful for determining the extent of corrective remedial actions (when used as remedial goals), evaluating risks posed by representative background concentrations, and establishing appropriate post-remedial monitoring plans.

SESSION 5

Total PFAS, but what does that mean and how do you quantify it?

TUESDAY 19 SEPTEMBER

15.30 – 16.30 CEST (Central European Summer Time)

ONLINE

Opening

15:30 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

15:35 Total PFAS, But What Does That Mean and How Do You Quantify It?
Nick Nigro (Pace Analytical, ASTM International)

16:20 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

16:30 End of the training

Register yourself in the Google form <https://forms.gle/dnuW6kCeBxBaisnR6>

BRIEF DESCRIPTION OF THE TRAINING

This presentation will provide an international perspective on the evolving concept of “Total PFAS,” also described as evaluating “PFAS as a Class.”

First, we will offer an overview of the definition of PFAS using two categorical lenses: (a) per-, poly-, and polymers, vs. (b) volatile, semivolatile, and nonvolatile. Understanding these concepts will be central to the discussion of available laboratory methods.

Second, we will provide an international perspective on the definition of “PFAS” – how many compounds are there? And whose definition is correct?

Third, we will talk about the various jurisdictions and regulations where the concept of “total PFAS” is being discussed, including some stakeholders using TOF as a proxy estimate.

Finally, we will discuss the current and evolving methods for quantifying “total PFAS” (however so defined). With the rapid advancement of PFAS restrictions and bans in Consumer Products, this final section will discuss a wide range of environmental and commercial matrices.



Nick Nigro



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SESSION 6

Adaptation to climate change: how to address climate impacts such as flooding, wildfires, extreme temperature, and economic disparities

TUESDAY 19 SEPTEMBER

16.30 – 17.30 CEST (Central European Summer Time)

ONLINE

Opening

16:30 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

16:35 Adaptation to climate change: how to address address climate impacts such as flooding, wildfires, extreme temperature, and economic disparities. The New Guide for Climate and Community Mapping
Barbara Maco, Cynthia Annett, Stephanie Fiorenza (ASTM International)

17:20 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

17:30 End of the training

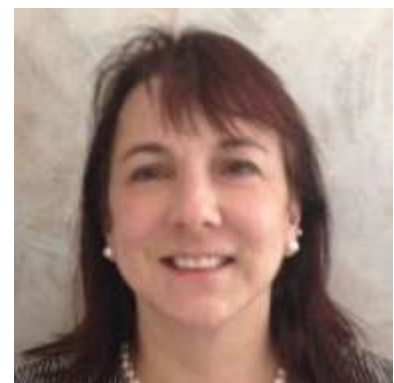
Register yourself in the Google form <https://forms.gle/Wkmic6kjZLdAeSq37>



Barbara Maco



Cynthia Annett



Stephanie Fiorenza



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SESSION 7 Environmental Liability Disclosure

TUESDAY 19 SEPTEMBER
17.30 – 18.30 CEST (Central European Summer Time)

ONLINE

Opening

17:30 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

17:35 Environmental Liability Disclosure
John Rosengard (Environmental Risk Communications, ASTM International)

18:20 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

18:30 End of the training

Register yourself in the Google form <https://forms.gle/ySvgyymbGUZpcKUoi7>

BRIEF DESCRIPTION OF THE TRAINING

With the development of Federal environmental laws, new accounting principles and stakeholder expectations have become part of the ASTM Standard setting activity. This course reviews ASTM standard guides covering the valuation, settlement and reporting of all types of environmental liabilities.



John Rosengard



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SESSION 8

PFAS Site Screening and Initial Characterization

TUESDAY 19 SEPTEMBER

18.30 – 19.30 CEST (Central European Summer Time)

ONLINE

Opening

18:30 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

18:35 PFAS Site Screening and Initial Characterization
Paul Sonnenfeld (ASTM International)

19:20 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

19:30 End of the training

Register yourself in the Google form
<https://forms.gle/KeGU3txkjFd9gzPB9>



Paul Sonnenfeld



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SESSION 9

Environmental, Social, and Governance (ESG) Disclosure Related to Climate and Community

TUESDAY 19 SEPTEMBER

20.00 – 22.00 CEST (Central European Summer Time)

ONLINE

Opening

20:00 Welcome from ASTM International and Remtech Europe
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

Presentations

20:05 Environmental, Social, and Governance (ESG) Disclosure
Related to Climate and Community
Eileen Snyder (Alpha Analytical, ASTM International)

21:50 Questions and Answers
Stephanie Fiorenza (ASTM International) Marco Falconi (ISPRA, Remtech Europe)

22:00 End of the training



Eileen Snyder

Register yourself in the Google form <https://forms.gle/feFhGFpK552AATFu5>

BRIEF DESCRIPTION OF THE TRAINING

ASTM (E50.07) task group WK77095 is in the process of developing a new standard guide for Environmental, Social, and Governance (ESG) Disclosure Related to Climate and Community. This new guide outlines the major ESG reporting frameworks and the regulations that require ESG disclosures, as well as resources for organizations that disclose this type of information. This guide includes information data sources and metrics; materiality determinations that address legal and financial reporting; and communications methods and best practices for making ESG disclosures. This task group, which formed in May 2021, is working through the ASTM ballot process. Once published, this new guide will be updated frequently as the ESG disclosures regulatory landscape changes.

SESSION 10

UK approach to risk assessment for coal mine gas emissions

WEDNESDAY 20 SEPTEMBER
09.00 – 11.00 CEST (Central European Summer Time)

ONLINE

Opening

09:00 Introduction from the Chairs

Nicola Harries (CL:AIRE) Marco Falconi (Remtech Europe)

09:10 UK approach to risk assessment for coal mine gas emissions

Steve Wilson and Amy Juden (Environmental Protection Group, CL:AIRE)

10:50 Panel discussion, stakeholders questions and wrap up, *Nicola Harries (CL:AIRE)*

11:00 *End of the Training*

Register yourself in the Google form <https://forms.gle/GycgVfxsGByR5pPq6>



Amy Juden - ERP, CL:AIRE



Steve Wilson - ERP, CL:AIRE

SESSION 11

Sediment management and remediation

WEDNESDAY 20 SEPTEMBER

09.00 – 11.00 CEST (Central European Summer Time)

White Room
1^o floor

Opening

09:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

09:05 Radionuclide concentration in the sediments of the sacca di Goro (Italy)
Chiara Telloli, Antonietta Rizzo (ENEA), Elena Marrocchino, Carmela Vaccaro (University of Ferrara)

09:20 Synthesis and possibility of application of magnesium titanates based photocatalysts for reduction of environmental contaminants in sediments
Jelena Beljin, Nina Đukanović, Nataša Slijepčević, Tamara Apostolović, Marijana Kragulj Isakovski, Snežana Maletić (University of Novi Sad) Iryna Matsukevich (National Academy of Sciences of Belarus)

09:35 Multi-level approach of the characterization of riverine sediments affected by unauthorized chemical wastes managements. Results from Contaminated Site of National Interest "Bussi sul Tirino"
Antonio Diligenti, Gianluca Marinelli (ARTA Abruzzo)

09:50 LIFE NARMENA: Nature based remediation techniques for heavy metals in sediment - constructed wetlands
Axelle Mineur, Jan De Vos (ABO nv), Froukje Kuijk (OVAM, Mechelen), Viaene Karel (ARCHE), Dubin Dirk (bio2clean BV)

10:05 Use of sunflower for plant-assisted bioremediation of a degraded soil mixed with marine sediments contaminated by polychlorobiphenyls
Valeria Ancona, Giorgia Aimola, Marina Tumolo, Paola Grenni, Gian Luigi Garbini, Livia Mariani, Anna Barra Caracciolo (CNR - Water Research Institute), Angela Gatto (CNR - Institute of Sciences of Food Production), Daniela Napolitano, Vito Alessio Lacirignola (CISA)

10:20 Panel discussion moderated by chairs

11:00 End of the session

Register yourself in the Google form <https://forms.gle/avZaHR2v3rmg11At5>

SESSION 12

Landfills management

WEDNESDAY 20 SEPTEMBER

09.00 – 11.00 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

09:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

09:05 Field application of endophytic fungi and *alocasia calidora* for effective remediation of heavy metal contaminated landfill soil

Auwalu Hassan (Federal University of Kashere), Fauziah Shahul Hamid (University of Malaya) Agamuthu Pariatamby (Sunway University)

09:20 A risk based Plan of inspections at waste recycling installations: the experience at the Sardinian Environmental Protection Agency

Romano Ruggeri, Lorenzo Cau, Simonetta Fanni, Mauro Iacuzzi, Veronica Lecca (Sardinian Regional Environmental Protection Agency (ARPAS))

09:35 Landfill diversion: Repurposing Construction & Demolition waste & advancing the circular economy

Jelena Hercegovac (Repurposelt)

09:50 Screening and Optimisation of the Biodegradation Potential for Low Density Polyethylene (LDPE) Films by *Fusarium Equiseti* and *Brevibacillus Parabrevis*

Sally A.Ali, Shimaa Zakarya, Shimaa Khaled (Helwan University)

10.05 Safety considerations about biodigesters in the biogas production

Romualdo Marrazzo (ISPRA), Cosetta Mazini (ARPAE)

10:20 Panel discussion moderated by chairs

11:00 End of the session

Register yourself in the Google form <https://forms.gle/T8CLXa3eoAsMgLq87>



REPURPOSE IT®

SESSION 13

Applied Sustainability Assessment: Case Study Walk Through

WEDNESDAY 20 SEPTEMBER
11.30 – 13.30 CEST (Central European Summer Time)

ONLINE

Opening

11:30 Introduction from the Chairs

Nicola Harries (CL:AIRE) Marco Falconi (Remtech Europe)

11:40 Applied Sustainability Assessment: Case Study Walk Through

Richard Gill (Shell, CL:AIRE), Alan Thomas (ERM, CL:AIRE) and Paul Bardos (r3 environmental technology ltd, CL:AIRE)

13:20 Panel discussion, stakeholders questions and wrap up, *Nicola Harries (CL:AIRE)*

13:30 *End of the Training*

Register yourself in the Google form <https://forms.gle/Vd2ttcdxrogYBQJD7>



Richard Gill - Shell, CL:AIRE



Alan Thomas - ERM, CL:AIRE



Paul Bardos – r3, CL:AIRE

SESSION 14
In situ remediation techniques

WEDNESDAY 20 SEPTEMBER
11.30 – 13.30 CEST (Central European Summer Time)

White Room
1^o floor

Opening

11:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

11:35 Last updates for in situ applications, lessons learned from several field cases Injection of colloidal reagents for in situ soil remediation: lessons learned on more than 100 projects over Europe

Laurent Thannberger, Matthieu Sangely (Valgo)

11:50 Kuwait soil remediation

Manel Fernandez, Miikka Tunturi (Lamor)

12:05 Injection of colloidal reagents for in situ soil remediation: lessons learned on more than 100 projects over Europe

Jeroen Vandenbruwane, Lionel Counet, Bram Vandekerhove (Injectis)

12.20 The evolution of two remediation methods: combined in situ stabilization (ISS) and in situ chemical oxidation (ISCO)

Brant Smith, Josephine Molin (Evonik Active Oxygens), Alberto Leombruni (Evonik Operations)

12.35 THERMOREACT® - An innovative remediation product for in-situ neutralization of halogens, sulphur, phosphorus and mercury during thermal desorption

Niels Ploug, Jesper Holm, Fredrik Engelcke (Krüger)

12.50 Panel discussion moderated by chairs

13:30 End of the session

Register yourself in the Google form <https://forms.gle/iNWUPduxbf7down66>



SESSION 15
Sustainable remediation

WEDNESDAY 20 SEPTEMBER
11.30 – 13.30 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

11:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 11:35** A sustainable approach for DNAPLS contaminated groundwater remediation: raw polyhydroxyalkanoates (PHA) from organic waste as electron donor for biological reductive dechlorination coupled with adsorption on biochar
Laura Lorini, Lorenzo Gianni, Marco Petrangeli Papini (University of Rome La Sapienza) Bruna Matturo (National Research Institute)
- 11:50** Sustainable soil management using Ground Penetrating Radar technique
Constantina Filipciuc, Elena Tudor, Irina Stoian, Avram Ovidiu, Ioan Scutelnicu, Antonio Ulmeanu, Adrian Tătaru, Iustina Boaja (Geological Institute of Romania)
- 12:05** Sustainable remediation: quantitative evaluation of carbon and water footprint reduction for in-situ groundwater bioremediation vs. pump&treat
Piero Mori, Edoardo Masut, Michele Remonti, Tania Fantasia, Michela Sangalli, Ximena Ferreyra Marinucci (ERM Italia)
- 12.20** Integrated use of screening matrix, sustainability criteria and engagement for design remediation of an agricultural site
Paolo Angelini, Fabio Allegrini, Marcello Mancini, Marcello Pianu, Valentina Raffaele (ENI – Energy Evolution Green), Manuel Valagussa, Valentina Vieri, Alberto Francioli, Diego Donati, Davide Colombo (HPC Italia)
- 12.35** Sustainable remediation: an approach to reach and completely destroy contaminant mass in low-permeability storage zones with high-resolution data
Sandro Souto, Cesar Malta, Felipe Sisto, Taisi Marrone, Mateus Evald (Finkler Sustainable Technologies)
- 12.50** Panel discussion moderated by chairs
- 13:30** End of the session
- Register yourself in the Google form <https://forms.gle/16eoj6K4hVMrfhue7>





LIVE DEM



SESSION 16

Live Demo Day 1

WEDNESDAY 20 SEPTEMBER

13.50 – 16.20 CEST (Central European Summer Time)

Pavilion 6

- 13:50 Meeting at the entrance of Pavilion 6 with the Chairs**
Marco Falconi (ISPRA), Giovanni Savarese (ARPA Lazio), Paola Grenni (CNR)
- 14:00 3D-Georadar**
Maurizio Porcu (Codevintec)
- 14:20 Polyethylene Passive Samplers**
Guido Bonfedi (ENI), Antonella Vecchio (ISPRA)
- 14:40 Qualitative and quantitative analysis with LIBS technology**
Luca Marta, Chiara Fumagalli, Luca Lorenzi (Smart NDT)
- 15:00 Coffee break in field**
- 15:10 Vapor Pin®, a device for soil gas sub slab**
Laurie Chilcote (Cox-Colvin), Alessia Fortunati (Ecosearch)
- 15:30 UVOST® system**
Claudio Carusi (Mares), Eugen Martac (Fugro), Thilo Hartung (Fugro)
- 15:50 Thearen Non Stationary Flux Chambers**
Luca Spinelli (Thearen)
- 16:10 Gadgets and certificates**
- 16:20 End of the session**

Register yourself in the Google form <https://forms.gle/ERb76pNivRvDerut6>



rewind



CODEVINTEC



remediation & waste into development



SESSION 17

Tools and Approaches to Quantify PFAS F&T

WEDNESDAY 20 SEPTEMBER
14.30 – 17.00 CEST (Central European Summer Time)

ONLINE

Opening

14:30 Welcome from SERDP-ESTCP International and Remtech Europe
Marvin Unger (SERDP-ESTCP) Marco Falconi (ISPRA, Remtech Europe)

Presentations

14:35

- “PFAS Leaching at AFFF-Impacted Sites: Insight into Soil-to-Groundwater Ratios” by Dr. Charles Schaefer (ESTCP Project ER20-5088)
- “PFAS Bioaccumulation in Freshwater Fish ” by Dr. Christopher Salice (SERDP Project ER19-1193)
- “Development and Validation of Novel Techniques to Assess Leaching and Mobility of PFAS in Impacted Media” by Dr. Jennifer Guelfo (SERDP Project ER20-1126)
- “In Silico Estimation of PFAS Properties” by Dr. Paul Tratnyek (SERDP Project ER20-1481)

16:50 Questions and Answers
Marvin Unger (SERDP-ESTCP) Marco Falconi (ISPRA, Remtech Europe)

17:00 End of the training

Register yourself in the Google form <https://forms.gle/iSoBkMZXg9gpZbbQA>



Charles Schaefer



Christopher Salice



Jennifer Guelfo



Paul Tratnyek

SESSION 18**LIFE CAPTURE: Characterisation and risk assessment
of PFAS contaminated sites for an efficient
remediation design**

WEDNESDAY 20 SEPTEMBER
14.30 – 19.00 CEST (Central European Summer Time)

Blue Room
1° floor

- 1) The LIFE CAPTURE Project: goals and activities - ABO
- 2) Sampling and analysis of PFAS in soil and groundwater: novel three-step protocol - SGS
- 3) Design of pilot treatment trains for PFAS soil and groundwater treatment - POLIMI /SLU
- 4) Risk assessment of PFAS contamination and impact on water resources: approaches and mitigation undertakings - UNIMIB/VIACQUA
- 5) Pilot tests implementation of treatment trains - GREEN SOIL
- 6) Monitoring of pilot sites & Replication – IFLUX

Register yourself in the Google form <https://forms.gle/odyHTs6Qe7pN9P93A>

SESSION 19 Groundwater Remediation

WEDNESDAY 20 SEPTEMBER
14.30 – 16.30 CEST (Central European Summer Time)

White Room
1° floor

Opening

14:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 14:35** Field test of a pilot scale sequential reductive/oxidative bioelectrochemical processes for cads removal from contaminated groundwaters
Edoardo Dell'Armi, Marco Zeppilli, Paolo Ciampi, Marco Petrangeli Papini ("La Sapienza" University of Rome)
- 14:50** Surfactant Enhanced Extraction of NAPL, Globule, and Sorbed Phase Contamination Resolving Primary Hydro-Geo-Chemical Limitations
George A. Ivey, B.Sc, CES, CESA, P.Chem (Ivey International Inc)
- 15:05** Green synthesis of nZVI with common reed and its application in Fenton-like decolorization process
Nataša Slijepčević, Aleksandra Kulić Mandić, Đurđa Kerkez, Anita Leovac Mačerak, Dunja Rađenović, Milena Bečelić-Tomin, Dragana Tomašević Pilipović (University of Novi Sad)
- 15:20** Technology for Continuous, In-Situ Production of Reactive Oxygen Species
Troy Lizer, Will Moody (Provectus Environmental Products), Claudio Sandrone (BAW Remediation Technologies), Elie Elgressy (Elgressy Ltd.)
- 15:35** Activation of persulfate and peroxymonosulfate by zero-valent iron and iron-copper bimetals for the chemical oxidation of halogenated contaminants in water
Giovanni Scaggiante, Daniela Zingaretti, Renato Baciocchi (University of Rome Tor Vergata), Alicia Checa-Fernandez, Carmen Maria Dominguez, Aurora Santos (University Complutense of Madrid)
- 15:50** Accurate distribution and its importance for the treatment of petroleum hydrocarbons using colloidal activated carbon
Todd Herrington, Mariangela Donati, Marcello Carboni (Regenesis)
- 16:05** Adsorption process as the best available treatment technology for PFAS removal from water: current gaps and research needs
Erica Gagliano (University of Genoa), Massimiliano Sgroi (Polytechnic University of Marche), Pietro P. Falciglia, Federico G.A. Vagliasindi, and Paolo Roccaro (University of Catania)
- 16:20** Panel discussion moderated by chairs

16:30 End of the session

Register yourself in the Google form <https://forms.gle/BDZhk6611DD3ipxr9>

SESSION 20

In Situ Post-Remediation Performance Evaluation

WEDNESDAY 20 SEPTEMBER
17.00 – 19.30 CEST (Central European Summer Time)

ONLINE

Opening

17:00 Welcome from SERDP-ESTCP International and Remtech Europe
Marvin Unger (SERDP-ESTCP) Marco Falconi (ISPRA, Remtech Europe)

17:05 Presentations

- Post-Remediation Performance Assessment at a Petroleum Impacted Site/ Jovan Popovic, Ph.D., NAVFAC

The primary objective of this project was to help the Department of Defense (DoD) and others make a stronger case for closure of legacy petroleum sites, and expand users' knowledge of high-impact methods that can better reveal the actual risk associated with LNAPL presence and therefore help stakeholders make more informed remediation decisions.

- Assessing Post-bioremediation Sustained Treatment - Fact Sheet/ Travis McGuire, GSI Environmental Services, Inc.

The objectives of this project were: i) to develop new process knowledge on how to measure and demonstrate sustained treatment following application of ISB and ii) to evaluate and quantify MNA processes in low-K matrix diffusion zones. This Fact Sheet summarizes efforts under ESTCP project, "Performance of Two Technologies to Control Difficult-to-Treat Matrix Diffusion Zones: Post-Bioremediation Sustained Treatment and MNA in Low Permeability Units.

- MNA Rate Constant Estimator User's Guide and Tool/ Anthony Danko, Ph.D., NAVFAC EXWC

The MNA Rate Constant Estimator is a screening model that simulates natural attenuation of dissolved compounds in groundwater. The software has been programmed using the Microsoft Excel platform and has the ability to simulate 3-D solute transport that incorporates advection-dispersion, linear adsorption, and various transformation processes using a modification of the analytical solutions developed by Wexler (1992)

19:20 Questions and Answers
Marvin Unger (SERDP-ESTCP) Marco Falconi (ISPRA, Remtech Europe)

19:30 End of the training

Register yourself in the Google form <https://forms.gle/BMpWNxZMkTaX9hcDA>

SESSION 21

DNAPL and chlorinated compounds treatment

WEDNESDAY 20 SEPTEMBER

17.00 – 19.00 CEST (Central European Summer Time)

White Room
1^o floor

Opening

17:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

17:05 Surfactant Enhanced Extraction of Carbon Tetrachloride Source Zone At Active Grain Elevator Facility

George A. Ivey, B.Sc, CES, CESA, P.Chem (ivey International) Eric Dulle (Burns & McDonnell)

17:20 In-Situ Remediation of DNAPL Source and Plume at an Active Industrial Facility with Innovative Enhanced Reductive Dichlorination Technology

Gabriele Giorgio Ceriani (Ejlskov)

17:35 Chlorinated solvent daughter product management and expedited remediation

Michael Mazzaresse (AST Environmental)

17:50 Metagenomics of a bioreactor with polyhydroxybutyrate (PHB) and biochar as biomaterials to prompt reductive dechlorination

Bruna Matturro, Maria Letizia Di Franca, Simona Rossetti, Laura Lorini (National Research Council), Marta Maria Rossi, Marco Petrangeli Papini (University of Rome La Sapienza)

18.05 Cost-effective NAPL remediation at remote locations

Raj Mahadevaiah, P.E., CGWP (Environmental International Corporation (EIC))

18.20 Constructed wetland bioremediation of chlorinated organic compounds in a groundwater capture and reinjection system

William Pepe, Richard Sellen (Stantec), Scott Wallace (Naturally Wallace) Edward Kolodziej (General Electric)

18:35 Panel discussion moderated by chairs

19:00 End of the session

Register yourself in the Google form <https://forms.gle/evFfMGcbL3NlfPky7>



SESSION 22

PFAS models and microcosm studies

THURSDAY 21 SEPTEMBER

09.00 – 11.00 CEST (Central European Summer Time)

White Room
1° floor

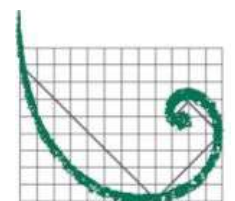
Opening

09:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 09:05** Microbially mediated PFAS degradation, a microcosm study
Patrizia Pretto (Biosearch Ambiente), Massimo Carmagnani, Carla Indorato (Gestore del servizio idrico integrato Acque Veronesi), Francesca Bruni, Andrea Negroni, Giulio Zanaroli (Bologna University)
- 09:20** Fate and emission pathways of PFAS in full-scale plants for landfill leachate treatment
Nicola Lancioni, Elisa Blumenthal, Massimiliano Sgroi, Anna Laura Eusebi, Francesco Fatone (Marche Polytechnic University), Giancarlo Cecchini, Alessandro Frugis, Marco Lazzazzara (Acea Elabiori), Paolo Crocetti, Maria Grazia Ascì, Daniele Matteucci (SIMAM)
- 09:35** Environmental forensics: challenges, opportunities and limitations of source-tracking PFAS contamination under complex site conditions
Patrick Jacobs, Vera Koss, Doreen Mäurer, Sadjad Mohammadian, Florian Wölfl (Tauw) Alberto Guadagnini, Angeliki Koupa, Giovanni Porta, Monica Riva (Politecnico di Milano)
- 09:50** Webgis of potential PFAS sites in Italy
Valerio Caroselli, Stefania Annicchiarico (Iptsat)
- 10:05** Complex groundwater flow and contaminant transport model for groundwater management of a PFAS contaminated site
Michele Remonti, Alberto Stefania, Gerd Van Den Daele, Nicholas Gwyther, Dirk Nuyens (ERM)
- 10:20** PFAS leaching test and soil threshold calculations by means of analytical models
Francesca Motta, Stefania Verdelocco, Giorgio Volpi (AECOM)
- 10:35** The PFAS Risk Management Strategy
Caron Koll (Antea Group)
- 10:50** Panel discussion moderated by chairs
- 11:10** End of the session

Register yourself in the Google form <https://forms.gle/mTzHsbYwNYjic6gg6>



SESSION 23

Nature based solutions

THURSDAY 21 SEPTEMBER

09.00 – 11.00 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

09:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 09:05** The soil-OMIC for soil and groundwater decontamination, an integrated chemical-physicalbiological process supported by metabarcoding by next generation sequencing of soil bacterial communities
Simone Becarelli, Simona Di Gregorio (University of Pisa), Serena Doni (CNR-IRET), Carlos Garcia Izquierdo (CEBAS-CSIS), Alessandro Gentini (Teseco Bonifiche)
- 09:20** Investigation on microbial community composition of Biological tricklingdeodorant tower efficiency with and without nutrients supply.
Hyacinth Wong (Zhengzhou nonferrous metal research institute)
- 09:35** Towards rapid and sensitive biomonitoring tools for bioremediation: exploring digital droplet PCR as a thirdgeneration quantification method
Bruna Matturro, Maria Letizia Di Franca, Simona Rossetti, Laura Lorini (National Research Council)
- 09:50** Tolerance threshold and phyto-assessment of cadmium and lead in vetiver grass
Chuck Chuan Ng (China-ASEAN College of Marine Sciences, Xiamen University Malaysia)
- 10.05** Feasibility of mycoaugmentation in the clean-up of tph-contaminated soils: THE LIFE MYSOIL Project
Flora Bagnato, Guido Bonfedi, Rachele Ciacciarelli, Federico Villani (ENI Rewind), Silvia Crognale, Alessandro D'Annibale, Andrea Firrincieli, Davide Lelli, Maurizio Petruccioli, (University of Tuscia - DIBAF)
- 10.20** From tree pruning wastes to Sustainable Soil Remediation
Laura Passatore, Serena Carloni, Valentina Mazzurco Miritana, Eleonora Peruzzi, Fabrizio Pietrini, Massimo Zacchini, Isabel Nagues (CNR - Research Institute on Terrestrial Ecosystems) Alessio Cherubini, Sara Marinari, Luisa Massaccesi (DIBAF - University of Tuscia)
- 10:35** Panel discussion moderated by chairs
- 11:00** End of the session
- Register yourself in the Google form <https://forms.gle/jpVYqFow9hkDYyeb6>

REMTECH Europe

SESSION 24

PFAS soil remediation

THURSDAY 21 SEPTEMBER

11.30 – 13.30 CEST (Central European Summer Time)

White Room
1° floor

Opening

11:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 11:35** What is the environmental footprint of per-and polyfluoroalkyl substances (PFAS) treatment technologies for liquid and solid?
Claudio Albano (Jacobs)
- 11:50** Immobilisation: a viable solution for large volumes of diffuse PFAS contaminated soil at airports
Dr Matthew Askeland, Mubiana Matakala (ADE Consulting Group), Richard Stewart (RemBind), Nick Walker (Australia Pacific Airports Melbourne (APAM)), Thomas Hanley (EDCORP Project Solutions), Nial Finegan (EDCORP Project Solutions), Alison Price (SoilCyclers)
- 12:05** Successful treatment of PFAS-contaminated soils on large scale: practical experience with improved soil-washing
Benjamin Faigle, Bernhard Volz, Hans-Georg Edel, Simone Alberio (Zueblin Umwelttechnik)
- 12.20** Surface active foam fractionation (SAFF) treating PFAS contaminated soil wash water, coupled with electrochemical oxidation for destruction of foam concentrate
Helena Hinrichsen, Robin Axelson (Envytech)
- 12.35** PFAS-contaminated soil management: Learned lessons from soil-washing treatment strategies implemented in France and Belgium
Vincenzo Bennici, Olivier Sibourg, Boris Devic-Bassaget, Patrice Imberti (SARPI Remediation)
- 12.50** High-energy in situ injection of a modified clay for sequestration of PFAS
Michael Mazzaresse (AST Environmental)
- 13.05** Panel discussion moderated by chairs
- 13:30** End of the session

Register yourself in the Google form <https://forms.gle/hrn6EvCQ9VVVoXL8H9>



REMTECH
Europe
SESSION 25

Persistent organic Pollutants

THURSDAY 21 SEPTEMBER
11.30 – 13.30 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

11:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

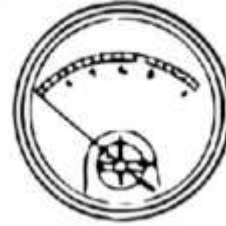
Presentations

- 11:35** Integrated sustainable approach to lindane biodegradation
Cosimo Masini, Federica Brogioli (DND Biotech)
- 11:50** Clay minerals as simultaneous sorbents of pfas and pesticides
Eleni Gianni, Pavlos Tyrologou, Nikolaos Koukouzas (Centre for Research & Technology Hellas, CERTH), Daniel Moreno-Rodríguez, Eva Scholtzová (Slovak Academy of Sciences), Nazaré Couto (NOVA University Lisbon), Miroslav Pospíšil (Charles University), Dimitrios Papoulis (University of Patras)
- 12.05** Assessing organic amendment's ability to reduce bioavailability of Trifluralin
Jelena Beljin, Marijana Kragulj Isakovski, Nina Đukanović, Jelena Molnar Jazić, Tamara Apostolović, Srđan Rončević, Snežana Maletić (University of Novi Sad)
- 12.20** Decontamination of PAH-impacted soils using Liquid Activated Carbon (LAC) – enhanced microwave treatment
Pietro P. Falciglia, Guido De Guidi, Fabiana Vento, Federico G.A. Vagliasindi (University of Catania), Monica Granetto, Tiziana Tosco, Rajandrea Sethi (Politecnico di Torino)
- 12.35** Widening the scope of Thermal desorption, example of mercury removal
Laurent Thannberger, Matthieu Sangely (Valgo)
- 12.50** Soil washing and vacuum thermal desorption for remediation of a mercury contaminated site case study on best-practice
Tobias Gschnaidtner, Christian Stiels, Xavier Ibarz Formatger, Reinhard Schmidt (Econ industries services)
- 13.05** Panel discussion moderated by chairs
- 13:30** End of the session

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LIVE DEMO



SUSTAINABLE,
COST-EFFICIENT
REMEDICATION



SESSION 26

Live Demo Day 2

THURSDAY 21 SEPTEMBER

13.50 – 16.20 CEST (Central European Summer Time)

Pavilion 6

13:50 Meeting at the entrance of Pavilion 6 with the Chairs

Marco Falconi (ISPRA), Giovanni Savarese (ARPA Lazio), Paola Grenni (CNR)

14:00 ReSoil® - sustainable extraction of heavy metals from soil

Envit Ltd. & Matec Industries S.p.A.

14:20 e-hyrec®/e-lorec® devices for selective recover of LNAPL and DNAPL

Guido Bonfedi (ENI Rewind), Camilla Lanari (ENI Rewind)

14:40 Groundwater Passive Sampling: Snap Sampler®

Claudio Sandrone (BAW)

15:00 Coffee break in field

15:10 EVO droplets, the difference in size between factory and in the field created emulsions

Robert Wagenweld (QM Environmental)

15:30 Whitelab Non Stationary Flux Chamber

Marcello Tognacci (Whitelab)

15:50 Gadgets and certificates

16:20 End of the session

Register yourself in the Google form <https://forms.gle/zQV1bYZnMTWFdbLj9>



REMTECH
Europe
SESSION 27

Contaminated sites management

THURSDAY 21 SEPTEMBER
14.30 – 16.30 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

14:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

14:35 Progress in addressing contamination caused by military activities in the territory of the Slovak Republic

Katarína Paluchová, Elena Bradiaková (Slovak Environment Agency)

14:50 Use of geostatistics for remediation treatment monitoring

Juliette Chastanet, Eve Dujardin, Jacques Villemagne (GINGER BURGEAP)

15:05 Determining the background values for soils and groundwater: the Italian Guidelines by SNPA

Maurizio Guerra (ISPRA)

15:20 Assessing a methodology for estimating soil pollution costs in Luxembourg

Anna Espinoza, Arno Biwer (Luxembourg Institute of Science and Technology), Gaëtan Fourvel, Pol Tock (Administration de l'environnement)

15:35 The SEPAL Monitoring

Sergejus Ustinov, Natalia Rodriguez Eugenio (FAO)

15:50 American perspective of the soil remediation market

Tatiana Morin, Paul Mankiewicz, Meg Brown (Urban Soils Institute)

16:05 The proposed EU Nature Restoration Law: challenges and opportunities

Luigi Servadei (CREA)

16:20 Panel discussion moderated by chairs

16:30 End of the session

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SESSION 28

PFAS groundwater remediation

THURSDAY 21 SEPTEMBER

14.30 – 16.30 CEST (Central European Summer Time)

White Room
1^o floor

Opening

14:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 14:35** Effectiveness of microwave irradiation in regenerating PFAS-loaded GAC
Erica Gagliano (University of Genoa), Pietro P. Falciglia, Paolo Roccaro (University of Catania), Jeakub Zaker, Tanju Karanfil (Clemson University)
- 14:50** Technical and economic assessment of pilot testing PFAS removal from groundwater using GAC and SORBIX™ ion exchange resin at a swedish airport
Jeffrey Lewis, Jörgen Lindahl (ECT2 Sweden), Carol Jarpa de Emilson (Skövde municipality)
- 15.05** Destruction of spent media from PFAS remediation using Supercritical Water Oxidation
Tali Harif, Sudhakar.Viswanathan, Marc Deshusses (374Water)
- 15.20** In-situ elimination of PFAS in contaminated Soil and Groundwater by Washing with Protein Bio-polymers and Stabilization by GAC high pressure injection
Stephan Huettmann, Anja Wilken (Sensatec)
- 15.35** Surface Active Foam Fractionation (SAFF) in Combination with A Patented All Natural Amendment To Increase The PFAS Removal Efficiency of SAFF for complex leachate
Helena Hinrichsen, Hugo Carronnier, Wassism Almouallem, Robin Axelson (Envitech)
- 15.50** STAR and STARx: A Smouldering Solution to PFAS from Laboratory to Field Scale Application
Laura Kinsman, David Major, Gavin Grant, Jorge Gabayet (Savron), Brian Harrison, Joshua Brown, Jason Gerhard (University of Western Ontario), David Patch, Kela Weber (Royal Military College of Canada)
- 16.05** Development and Demonstrations of the PFAS Effluent Treatment System (PETS) and Planned Research and Development Efforts at the ERDC
Scott Waisner, José Mattei-Sosa, Edith Martinez (U.S. Army Engineer Research and Development Center)
- 16.20** Panel discussion moderated by chairs
- 16:30** End of the session

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Montrose Environmental Group

 SENSATEC



SESSION 29

Contaminants of Emerging Concern

THURSDAY 21 SEPTEMBER
17.00 – 19.00 CEST (Central European Summer Time)

ONLINE

Opening

17:00 Welcome from Interstate Technology Regulatory Council (ITRC) and Remtech Europe
Charles Reyes (ITRC Director), Claudio Sorrentino (DTSC, ITRC), Marco Falconi (ISPRA, Remtech Europe)

Presentations

17:10 Contaminants of Emerging Concern
Paula Panzino (ADEQ Arizona Department of Environmental Quality, ITRC), Vivek Mathrani (Department of Toxic Substances Control California, ITRC)

19:50 Questions and Answers
Claudio Sorrentino (DTSC, ITRC), Marco Falconi (ISPRA, Remtech Europe)

20:00 End of the training

Register yourself in the Google form <https://forms.gle/9yh3c5PZMcAitq6p7>

BRIEF DESCRIPTION OF THE TRAINING

Contaminants of emerging concern (CEC) require a clear technical approach on how to identify, evaluate, and manage them while acknowledging uncertainties in their environmental fate and transport, receptor exposure, and/or toxicity. Such an approach can be conducive to improved allocation of regulatory response resources and provide a foundation for communicating potential risk to stakeholders. This ITRC framework is comprised of a white paper and four associated fact sheets. In the white paper, CEC are defined as: **“substances and microorganisms including physical, chemical, biological, or radiological materials known or anticipated in the environment, that may pose newly identified risks to human health or the environment.”** The framework is meant to help environmental regulatory agencies by providing examples of CEC monitoring programs and guiding the user through the process of identifying CEC key characteristics, how to communicate real and perceived risk from CEC to the public, and how laboratory analytical methods can be used in the identification process.

SESSION 30

LNAPL and chlorinated compounds treatment

THURSDAY 21 SEPTEMBER

17.00 – 19.00 CEST (Central European Summer Time)

White Room
1° floor

Opening

17:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

17:05 Legacy urban underground storage tank site achieves site closure using surgical injection strategy

Michael Mazzaresse (AST Environmental)

17:20 A Novel Adsorbent Material for Oil Spills Management

Alessandra de Folly D'Auris (Eni, Environmental & Biological Laboratories), Francesca Rubertelli (Eni, Renewable, New Energies and Material Science Research Center), Alessandro Taini (Test1 SB), Marco Vocciante (University of Genova)

17:35 Assessing the Genetic Potential for Natural Source Zone Depletion at a Petroleum-Contaminated Site

Sam Rosolina, Dora Taggart (Microbial Insights)

17:50 SEAR Combined With MPE To Resolved Recalcitrant NAPL At Coal Tar Brownfield Site

George A. Ivey, B.Sc, CES, CESA, P.Chem -Daniel Hirth, CEnvP (Ivey International)

18:05 Demonstrating technical impracticability at LNAPL sites

Raj Mahadevaiah, P.E. CGWP (Environmental International Corporation (EIC))

18:20 Remediation and Closure of LNAPL Contaminated Site Using an Innovative 3-Step Approach from Remedial Design to In-Situ Remediation

Gabriele Giorgio Ceriani (Ejlskov)

18:35 3D hydrogeophysical and time-sensitive model for remediation of a LNAPL-polluted site

Paolo Ciampi Carlo Esposito, Edoardo dell'Armi, Marco Petrangeli Papini (Sapienza University of Rome), Giorgio Cassiani (University of Padua), Gian Piero Deidda (University of Cagliari)

18:50 Panel discussion moderated by chairs

19:00 End of the session

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SESSION 31

Heavy metals and mining

THURSDAY 21 SEPTEMBER

17.00 – 19.00 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

17:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 17:05** The influence of low molecular weight organic acids on the bioavailability of heavy metals in sediments
Nina Đukanović, Jelena Beljin, Marijana Kragulj Isakovski, Srđan Rončević, Snežana Maletić (University of Novi Sad), Tijana Zeremski, Nadežda Stojanov (Institute of Field and Vegetable Crops)
- 17:20** Bioremediation; A useful way to mitigate heavy metal toxicity in soil
Muneeb Ur Rehman, Aziz Ullah, Sapana Parajuli (Ondokuz Mayıs University) Naseer Ahmad, (University of Agriculture Peshawar)
- 17.35** Nature based solution to precipitate heavy metals
Dirk Paulus, Herwig De Wilde (TAUW Belgium)
- 17.50** Simultaneous removal of toxic metalloids and metals from soil using ReSoil® technology
Domen Lestan, Juan F.M. Arteaga (University of Ljubljana), Simon Gluhar, Anela Kaurin (ENVIT)
- 18.05** Importance of using background concentrations to assess anthropogenic impact on soil and groundwater. Case: Metals in Andean soils
Alejandra, Romero, Maria Villalobos (Novambientti Soluciones Ambientales)
- 18.20** Cadmium in cocoa beans of Trinidad & Tobago and Ecuador: watershed scale initial approach
Sasha Hart, Sander Eskes, Luciana Ferreira, Ana Moeri (Instituto Ekos Brasil and NICOLE Latin America), Lucia Buvé, Olivier Maurer (NICOLE Foundation), Sergejus Ustinov, Natalia Rodríguez Eugenio (FAO)
- 18.35** Panel discussion moderated by chairs
- 19:00** End of the session

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SESSION 32

ITRC Microplastics Guideline

THURSDAY 21 SEPTEMBER
20.00 – 22.00 CEST (Central European Summer Time)

ONLINE

Opening

20:00 Welcome from Interstate Technology Regulatory Council (ITRC) and Remtech Europe
Charles Reyes (ITRC Director), Claudio Sorrentino (DTSC, ITRC), Marco Falconi (ISPRA, Remtech Europe)

Presentations

20:10 Contaminants of Emerging Concern
Valerie Hanley (Department of Toxic Substances Control California, ITRC), Kim Nimmer (City of Raleigh, ITRC)

21:50 Questions and Answers
Claudio Sorrentino (DSTC, ITRC), Marco Falconi (ISPRA, Remtech Europe)

22:00 End of the training

Register yourself in the Google form <https://forms.gle/yWxJsmhi9YMKtobh8>

BRIEF DESCRIPTION OF THE TRAINING

Because of their small size and pervasiveness in the environment, Microplastics (MP), along with any other contaminants that are adsorbed to the MP or intentionally added through the manufacturing process, may be consumed by humans and other organisms. Microplastics have been reported in human blood, in the deep lung, and in placenta, meconium, and human excrement. The science surrounding MP, their potential health effects, and knowledge of their fate and transport is very new and ongoing, with research articles being published at a rapidly accelerating rate. Even techniques and best practices for sample collection and analysis of these tiny particles and fibers are still very much evolving. The ITRC MP guidance document was written for an individual who has a reasonable level of scientific understanding, but not a lot of MP-specific knowledge. The guidance provides a user with information on MP and the state of the applied science without having to go to the scientific literature

SESSION 33
Soil remediation

FRIDAY 22 SEPTEMBER
09.00 – 11.00 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

09:00 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 09:05** Inadequate municipal solid waste management and occurrence of phthalate esters in soil in Serbia
Dragana Vidojević (Serbian Environmental Protection Agency), Nataša Stojić, Mira Pucarević, Dunja Prokić, Ljiljana Ćurčić (University Educons)
- 09:20** LIFE FRAC IN: enabling in situ soil remediation on low-permeability sites through hydraulic and pneumatic fracturing
Stijn Decru, Axelle Mineur, Jan De Vos (ABO), Lhotský Ondřej (Dekonta)
- 09:35** LCA in the development of an in-situ innovative remediation technology: the case of ERASE - ElectRode-Aided Soil rEmediation
Gabriele Beretta, Elena Sezenna, Giovanni Dolci, Lucia Rigamonti, Sabrina Saponaro (Politecnico di Milano), Claudio Carnabuci, Daniele Vezzoli (HPC)
- 09:50** Current trends and chinese perspective of the soil remediation methods using remediation trains
Jian Shen (RPU Rheinische Pflanzenpower & Umwelttechnik GmbH), Grega E. Voglar, Simon Gluhar (ENVIT Ltd.), Anela Kaurin, Domen Lestan (University of Ljubljana)
- 10.05** Treatment of hydrocarbon-contaminated soils with biosurfactants obtained from agricultural wastes
Teklit Ambaye, Mentore Vaccari (University of Brescia), Francesca Formicola, Andrea Franzetti (University of Milano-Bicocca), Silvia Scaffoni (ENEA - Sustainability Department)
- 10:20** Panel discussion moderated by chairs
- 11:00** End of the session

Register yourself in the Google form <https://forms.gle/2upAaqrJTbfQkefB7>



SESSION 34

Zero pollution - ecotoxicology for safe and sustainable remediation

FRIDAY 22 SEPTEMBER

09.00 – 13.00 CEST (Central European Summer Time)

White Room
1° floor

Opening

09:00 Welcome from from the Chairs Ilaria Corsi (SETAC ILB), Paola Grenni (SETAC IB), Sabine Apitz (Editor in Chief SETAC-IEAM), Peter Benhish (BDS); John Pitchel (Ball State University)

Presentations

- 09:10** Protecting Health Through The Redevelopment Urban Contaminated Sites
Matthias Braubach (European Centre for Environment and Health, WHO)
- 09:30** Cont'd sites and health: from the Italian SENTIERI experience to the international context
Ivano Iavarone (Dipartimento ambiente e salute, Istituto superiore di sanità, Roma)
- 09:50** Resistance, Resilience, Recovery, Remediation and Restoration: Ensuring Assessment Supports Sustainable Land- and Water-Scapes
Sabine E. Apitz (Editor in Chief SETAC IEAM))
- 10:20** Toxic-free pollution - in vitro toxicity profiling for more safety and sustainability in plastic additives, plastics and recycling
Peter Behnisch (Director BioDetection Systems, BDS)
- 10:40** Title to be confirmed
David Pellegrini (ISPRA)
- 11:00** Innovative procedure for HP14 (ecotoxicity) classification of waste from a remediation project: a case study in Veneto Region
Alberto Pivato (Padova University, Civil, Environmental And Architectural Engineering)
- 11:20** Ecotoxicological set of tests for waste re-use
Maria Chiara Neri (Labservice), Francesco Marrone (LabAnalyses)
- 11:40** Automation of the characterization process, ranking and estimation of LEG on samples of marine sediment
Biochemie Lab S.r.l.
- 12:00** Environment Remediation: Benefits and Challenges on a Global Scale
John Pitchel (Ball State University, USA)
- 12:20** Environmental safety of nanotechnologies for environmental remediation: The case study of bio-based nanostructured materials between past and future
Carlo Punta (Politecnico di Milano,
- 12:40** Round table discussion and concluding remarks
- 13:00** End of the session

Organizing Committee: Paola Grenni (CNR), Ilaria Corsi, Silvia Casini (Siena Un), Claudia Vaj (Corteva Agriscience)

Register yourself in the Google form <https://forms.gle/Fgi2bprFWwfQnnUN8>

SESSION 35

Aeriforms measurements and management

FRIDAY 22 SEPTEMBER

11.30 – 13.30 CEST (Central European Summer Time)

Europe Room
2^o floor

Opening

11:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

11:35 Modelling the influence of advection on the soil gas radon deficit technique for the quantification of LNAPL saturation

*Alessandra Cecconi, Iason Verginelli, Renato Baciocchi (University of Rome Tor Vergata)
Fernando Barrio-Parra, Eduardo De Miguel (Universidad Politécnica de Madrid)*

11:50 Using real-time monitoring to understand the variability of TCE concentrations in indoor air in a site in Belgium

Paulo Valle, Elena Marino (ERM)

12:05 Tracing Airborne Microplastics in Modena: results from the MicroTRACES project

Giorgio Veratti, Alessandro Bigi, Sergio Teggi, Valentina Ferrari, Marco Scaramelli, Sara Righi, Roberto Simonini, Daniela Prevedelli, Elisa Bergami, Grazia Ghermandi (University of Modena and Reggio Emilia)

12:20 Using Ternary Plots to Evaluate the Influence of Sewer Gas in Vapor Intrusion Pathway Evaluations

Craig A. Cox (Cox-Colvin & Associates)

12:35 Investigating the relevance of density-driven transport on the vapor intrusion pathway for chlorinated VOCs

Clarissa Settini, Iason Verginelli, Daniela Zingaretti, Renato Baciocchi (University of Rome Tor Vergata)

12:50 Panel discussion moderated by chairs

13:30 End of the session

Register yourself in the Google form <https://forms.gle/3ob1JUzZhDwL4nRp8>

SESSION 36

High Resolution Site Characterization

FRIDAY 22 SEPTEMBER

14.30 – 16.30 CEST (Central European Summer Time)

White Room
1° floor

Opening

14:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

14:35 Introducing continuous monitoring of individual contaminant species

Eugen Martac (Fugro), Claudio Carusi (Mares)

14:50 POWER BI as an innovative analytical and visualization tool in a short-term remediation project

Charline Kaplan, Mattias Verbeeck, Paulo Valle (ERM)

15:05 Optimizing risk management plans for pollutants dispersion in aquifers by use of innovative mass flux and mass discharge approaches

Pierre Jamin, Maxime Evrard (Nagaré Hydro)

15:20 Comparison of sample preparation methods for characterization of soil geochemistry by handheld X-RAY Fluorescence

Robert Szabo, Iustina Boaja, Adrian Tătaru (Geological Institute of Romania), Ana Maria Turculet (Politehnica University of Bucharest)

15.35 Utilizing Drone Technology for Monitoring and Estimating Gully Expansion in an Environmental Protection Area in Nova Lima-MG, Brazil

Valéria C P Zago, Rafael F. Ercoli (Federal Center of Technological Education of Minas Gerais), Beatriz Amanda Watts (Leuphana University)

15.50 Possibilities and challenges of AI in remediation of mining environmental liabilities

Ysmael Ormeño Zender (Activos Mineros)

16.05 Panel discussion moderated by chairs

16:30 End of the session

Register yourself in the Google form <https://forms.gle/k9Kcq8fnjXreQyiU6>





SESSION 37

Groundwater sampling

FRIDAY 22 SEPTEMBER
14.30 – 16.30 CEST (Central European Summer Time)

ONLINE

Opening

- 14:30** Welcome to the session
Marco Falconi (ISPRA, Remtech Europe)
- 14:35** Introduction from the chairs
Patricia Ruiz (AESAS)

Presentations

- 14:40** Groundwater Sampling
Paulo Negrao (Clean Environment Brasil, AESAS)

16:15 Panel discussion moderated by chairs

16:30 End of the session

Register yourself in the Google form <https://forms.gle/1nusZnQ9vLtPgF5dA>

REMTECH Europe

SESSION 38

Wastewater treatment and remediation challenges

FRIDAY 22 SEPTEMBER

14.30 – 17.30 CEST (Central European Summer Time)

Europe Room
2nd floor

Opening

14:30 Welcome from *Marco Falconi (ISPRA)* and introduction from the Chairs

Presentations

- 14:35** Struvite Minimization in Domestic WW Systems: Prototyping & Optimization in Full-Scale Plants
MA. Cleofas O. Maceda (Association of Water & Wastewater Mechanical Systems Specialists)
- 14:50** Unlocking the Magic of Phosphate Solubilizing Bacteria: an efficient move towards sustainable crop production
Prof. Dr. Amanullah (University of Agriculture Peshawar)
- 15:05** Application of natural and modified zeolites for wastewater treatment
Francesco Panattoni, Marianna Tardani, Cosimo Masini (DND Biotech)
- 15:20** How To Resolve Risk of Cross Contamination to ASTM Standards Using PFAS and 1,4 Dioxane Free Products
George A. Ivey, B.Sc, CES, CESA, P.Chem (Ivey International)
- 15:35** Impact Assessment of WGC BAT Conclusions Implementation on IED Permit Release for the Chemical Industry in Italy
Davide Iaria (ISPRA)
- 15:50** Adsorption isotherms and kinetic models for removal endocrine disruptors and from wastewater using advanced oxidation processes in MATLAB
Ould Brahim Insaif, Chaouch Saad, Belgacem Ahmed (CRTI)
- 16:05** Semi-continuous summer-season cultivation in a flat outdoor prototype of an autochthonous microalgae for the phytoremediation of urban wastewaters at the Ferrara (Italy) plant
E. Benà, C. Baldisserotto, N. Paccapani, P. Giacò, S. Demaria, R. Marchesini (University of Ferrara), G. Zanotti, A. Benini, L. Benetti (HERA), S. Pancaldi (Terra&Acqua Tech Laboratory)
- 16:20** Hidden Sources of Soil Pollution: Potential Impact of Operational Heating and Cooling Systems on Soil Health and Microbial Dynamics
Beatriz Amanda Watts (Leuphana University)
- 16:35** "REMEDIAPP"-integral treatment system for the remediation of mining-metallurgical effluents for their conversion into farming water and drinking wastewater
Silvana Flores, Edison Zegarra (Green Metallurgy Technologies)
- 16:50** Evaluation of circular skills and circular mind-set of consumers with the use of it
Celene Brito (Instituto Mentalidade Ecosistêmica-Brazil -UCES)
- 17:05** Panel discussion moderated by chairs
- 17:30** End of the session

Register yourself in the Google form <https://forms.gle/8eQkaHh9RYZht2Vj8>





SESSION 39 Thermal Desorption

FRIDAY 22 SEPTEMBER
16.30 – 18.30 CEST (Central European Summer Time)

ONLINE

Opening

- 16:30** Welcome to the session
Marco Falconi (ISPRA, Remtech Europe)
- 16:35** Introduction from the chairs
Patricia Ruiz (AESAS)

Presentations

- 16:40** Thermal desorption
Thiago Gomes (DOXOR, AESAS) Eber Wood (Reconditec)
- 18.15** Panel discussion moderated by chairs
- 18:30** End of the session

Register yourself in the Google form <https://forms.gle/oQRDLzEMVzuW7veh8>



Remtech Europe Scientific Committee

Marco Falconi	ISPRA, Italy
Wouter Gevaerts	NICOLE - Network of Industrial Contaminated Land in Europe
Christiane Wermeille	Federal Office for the Environment FOEN Berne, Switzerland
Christian Andersen	Danish Regions, Denmark
Diego Angotti	Italian Ministry for Ecological Transition
Veronique Antoni	WG on Contaminated Sites and Brownfields, France
Thomas Aspray	Scottish Contaminated Land Forum, United Kingdom
Patrizia Bianconi	RemTech Expo, Italy
Iustina Boaja	IGR Romanian Geological Institute, RO
Baran Bozoğlu	ClimateChange Policy and Research Association, Turkey
Antonio Callaba de Roa	Environmental Ministry - Foro de las Comunidades Autónomas sobre Emplazamientos Contaminados, Spain
Said El Fadili	Brussels Capital Region and Irisnet, Brussels
Nicolas Fatin-Rouge	University of Bourgogne Franche-Comté, France
Stefanie Fiorenza	ASTM International, USA
Jörg Frauenstein	UmweltBundesAmt, Germany
Josè Carlos Gouvea	NICOLE Latin America
Paola Grenni	National Research Council (CNR), Italy
Nicola Harries	CL:AIRE - Contaminated Land: Applications in Real Environments, United Kingdom
Deyi Hou	Tsinghua University, Beijing, China
Róbert Jelínek	Slovak State Geological Institute of Dionyz Stur, Slovakia
Joytishna Jit	CRC Care - Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, Australia
Grzegorz Malina	AGH University of Science and Technology, Poland
Edith Martinez-Guerra	US Army Corps of Engineers (USACE), USA
Kine Martinsen	Ministry of Environment, Norway
Dietmar Müller-Grabherr	Common Forum and European Topic Centre on Urban, Land Use and Soil, Austria
Paul Nathanail	CABERNET, UK
Jussi Reinikainen	Finnish Environment Institute, Finland
Natalia Rodríguez Eugenio	FAO Food and Agriculture Organization
Juliana Rolla de Leo	FEAMIG Faculdade de Engenharia de Minas Gerais, Brasil
Pedro Sifuentes	Red Latinoamericana de Prevención y Gestión de Sitios Contaminados, Peru
Claudio Sorrentino	California Department of Toxic Substances Control, ITRC
Frank Swartjes	National Institute for Public Health and the Environment, The Netherlands
Nino Tarantino	Illegal Landfills Extraordinary Commissioner Office, Italy
Laurent Thannberger	Réseau National d'Expertise Scientifique et Technique sur les sols (RNEST), France
Pavlos Tyrologou	EFG European Federation of Geologists, Brussels-Belgium
Marvin Unger	SERDP-ESTCP, USA
Olcay Unver	Water Policy Institute
Antonella Vecchio	ISPRA, Italy



Erika von Zuben

Associação Brasileira das Empresas de Consultoria e Engenharia Ambiental, Brasil

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NICOLA Africa

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JRC - European Commission

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Paul Nathanail

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Nicola Harries

CL:AIRE - Contaminated Land: Applications in Real Environments, United Kingdom

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FAO Food and Agriculture Organization

Piotr Wojda

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AESAS, Brasil

Olcay Unver

WATER POLICY GROUP

Pedro Sifuentes

Red Latinoamericana de Prevención y Gestión de Sitios Contaminados, Peru

Sabine Apitz

Society of Environmental Toxicology and Chemistry (SETAC)

Isabella Stasi Castriota Scanderbeg

United Nation

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Lana Kukobat

Belgrade University, Serbia


































REMTECH EUROPE AMBASSADORS




















































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TIME ZONES	Mon 18 Sept ONLINE	Mon 18 Sept ONLINE	Tue 19 Sept ONLINE	Wed 20 Sept ONLINE
 CEST 09:00-11:00  CST 15:00-17:00  IST 12:30-14:30  EDT 03:00-05:00  BRT 04:00-06:00	 EUSO Dashboard for Soil Monitoring Directive and Clean Soil Outlook 2024		 Sustainathon (24 hours from 14:00 CEST to 14:00 CEST)	 UK approach to risk assessment for coal mine gas emissions
 CEST 11:30-13:30  CST 17:30-19:30  IST 15:00-17:00  EDT 05:30-07:30  BRT 06:30-08:30			3	 Applied Sustainability Assessment
 CEST 14:30-16:30  CST 20:30-22:30  IST 18:00-20:00  EDT 08:30-10:30  BRT 09:30-11:30	 Risk Assessment Environmental Evaluation	 Sustainathon (24 hours from 14:00 CEST to 14:00 CEST)	 ASTM INTERNATIONAL Helping our world work better 14:30 Sediment Background Concentrations 15:30 Total PFAS, what does it mean? 16:30 Adaptation to climate change 17:30 Environmental Liability Disclosure 18:30 PFAS Site Screening and Initial Characterization 20:00 ASTM Environmental, Social, and Governance (ESG)	  Tools and Approaches to Quantify PFAS F&T
 CEST 17:00-19:00  CST 23:00-01:00  IST 20:30-22:30  EDT 11:00-13:00  BRT 12:00-14:00	2	3	4 5 6 7 8 9	  In Situ Post-Remediation Performance Evaluation

TIME ZONES	Wed 20 Sept WHITE ROOM- 1 st floor	Wed 20 Sept EUROPE ROOM – 2 nd floor	Wed 20 Sept BLUE ROOM – 1 st floor	Thu 21 Sept WHITE ROOM- 1 st floor
 CEST 09:00-11:00  CST 15:00-17:00  IST 12:30-14:30  EDT 03:00-05:00  BRT 04:00-06:00	Sediment management and remediation 11	Landfills management 12		PFAS models and microcosm studies 22
 CEST 11:30-13:30  CST 17:30-19:30  IST 15:00-17:00  EDT 05:30-07:30  BRT 06:30-08:30	In situ remediation techniques 14	Sustainable remediation 15		PFAS in soil 24
 CEST 14:30-16:30  CST 20:30-22:30  IST 18:00-20:00  EDT 08:30-10:30  BRT 09:30-11:30	Groundwater remediation 19	Wed 20 Sept 13:50 CEST Pavillion 6 	Life Capture: Characterisation and risk assessment of PFAS contaminated sites for an efficient remediation design 18	PFAS in groundwater 28
 CEST 17:00-19:00  CST 23:00-01:00  IST 20:30-22:30  EDT 11:00-13:00  BRT 12:00-14:00	DNAPL and chlorinated compounds treatment 21	16	 18:30 – 19:00 Aperitif in front of Blue Room	LNAPL and chlorinated compounds treatment 30

TIME ZONES	Thu 21 Sept EUROPE ROOM – 2 ^o floor	Thu 21 Sept 13:50 - Pavillion 6	Fri 22 Sept WHITE ROOM- 1 ^o floor		Fri 22 Sept EUROPE ROOM – 2 ^o floor
 CEST 09:00-11:00  CST 15:00-17:00  IST 12:30-14:30  EDT 03:00-05:00  BRT 04:00-06:00	Nature based solutions 23	<div style="border: 2px dashed red; padding: 10px;"> <p>13:50 CEST Pavillion 6</p>  <p>LIVE DEM</p>  <p>DAY 2</p> </div>			Soil Remediation 33
 CEST 11:30-13:30  CST 17:30-19:30  IST 15:00-17:00  EDT 05:30-07:30  BRT 06:30-08:30	Persistent organic Pollutants 25		26	Zero pollution-ecotoxicology for safe and sustainable remediation 34	Aeriforms measurements and management 35
 CEST 14:30-16:30  CST 20:30-22:30  IST 18:00-20:00  EDT 08:30-10:30  BRT 09:30-11:30	Contaminated sites management 27	Thu 21 Sept ONLINE 17:00-19:00  Contaminants of Emerging Concern 29		High Resolution Site Characterization 36	Fri 22 Sept ONLINE Groundwater sampling  37
 CEST 17:00-19:00  CST 23:00-01:00  IST 20:30-22:30  EDT 11:00-13:00  BRT 12:00-14:00	Heavy metals and mining 31	Thu 21 Sept ONLINE 20:00-22:00  ITRC Microplastics Guideline 32	Fri 22 Sept ONLINE Thermal Desorption  39	<p style="text-align: center;"> Goodbye Arrivederci Adios Au revoir Auf wiedersehen Despedida 再见 Tot ziens </p> 