



MINISTRY
OF AGRICULTURE
OF THE REPUBLIC
OF LITHUANIA



EJP SOIL

European Joint Programme

Annual Science Days & General Meeting



PROGRAMME OF EVENTS
MONDAY 10 - FRIDAY 14 JUNE 2024



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Breakout Sessions

A1 Carbon sequestration at national and European scale and effects of policy and socio-economic factors

A2 Leveraging different approaches in the development of farmer-friendly tools for sustainable soil practices and schemes

A3 Open science and ethics

B1 C-sequestration and trade-offs

B2 External organic matters for circular economy

B3 Indicators for soil ecosystem services

C1 C-sequestration, roots and amendments

C2 Soil biodiversity and ecosystem services

C3 Sustainable soil management

C4 Innovation and methods for data acquisition





Poster Sessions

A1 Carbon sequestration at national and European scale and effects of policy and socio-economic factors

A2 Leveraging different approaches in the development of farmer-friendly tools for sustainable soil practices and schemes

B1 C-sequestration and trade-offs

B2 External organic matters for circular economy

B3 Indicators for soil ecosystem services

C1 C-sequestration, roots and amendments

C2 Soil biodiversity and ecosystem services

C3 Sustainable soil management

C4 Innovation and methods for data acquisition





HANDY INFORMATION

The event will be taking place at the
Artis Centrum Hotel
Totorių g. 23, Vilnius, Lithuania

Registration will begin at 9:00 on
Monday 10th June for early arrivals
and will continue until 13:00 in
parallel with Lunch at 12:00.

The train for the field trip will leave
on Wednesday 12th June will leave
promptly at 12:30 from the Vilnius
Train Station. For the location of the
train station click **HERE**

Please be mindful of the timing of
the schedule of events and be
seated 5 - 10 minutes before the
beginning of the sessions.

PLEASE NOTE THE SCHEDULE OF EVENTS
IS SUBJECT TO CHANGE.
FOR DAILY UPDATES ON ANY CHANGES
PLEASE CLICK **HERE**



A LOOK AT THE WEEK

MONDAY
10th

A
M NCR Meeting, Project Meetings

P
M Opening Session
Breakout Sessions Block A

TUESDAY
11th

A
M Breakout Sessions Block B

P
M Breakout Sessions Block C

WEDNESDAY
12th

A
M Training / Workshops

P
M Field Trip & Social Dinner

THURSDAY
13th

A
M Plenary Session

P
M Plenary Session

FRIDAY
14th

A
M Joint Executive Committee,
Board of Programme Managers
& Programme Owners Meeting

P
M Project Meetings

MONDAY

10

09:00 Registration Opens

09:30 Morning Meetings

NCR Meeting, Project Meetings

12:00 Registration & Lunch

13:00 Opening of the event

Claire Chenu
EJP SOIL Coordinator

Anna Besse-Lototskaya
EJP SOIL Co-coordinator

13:30 Welcome

Gintaras Brazauskas
Director - Lithuanian Research Centre
for Agriculture & Forestry

13:35 Presentation by Lithuanian Policymakers

Kęstutis Navickas
Minister of Agriculture

Justas Nugaras
Vice-Minister of Education,
Science & Sport

13:50 Soil futures- emerging drivers and needs
of soil management and soil services

Katharina Helming
EJP SOIL Advisory Board Chair

MONDAY

10

14:30

Coffee Break

15:15

Breakout Session Block A

A1 Carbon sequestration at national and European scale & effects of policy and socio-economic factors

A2 Leveraging different approaches in the development of farmer-friendly tools or sustainable soil practices and schemes

A3 Publications & open science

17:15

Strengthening climate preparedness and food security through agroecological soil management

Pablo Tittonell

WWF Professor of Agroecology and Sustainable Landscapes

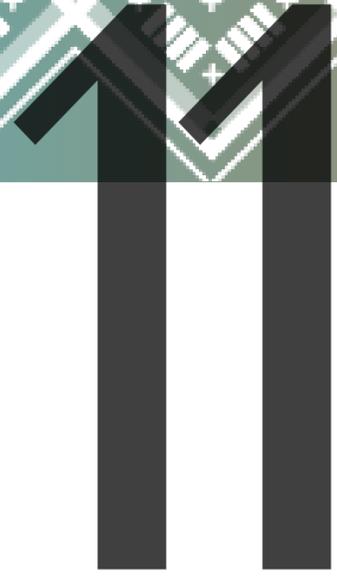
Groningen University

17:55

End of day



TUESDAY



09:00

Breakout Session Block B

B1 C-sequestration and trade-offs

B2 External organic matters for circular economy

B3 Indicators for soil ecosystem services

10:15

Coffee Break

11:00

Breakout Session Block B- Continued

12:00

Lunch

13:15

Breakout Session Block C

C1 C-sequestration, roots & amendments

C2 Soil biodiversity & ecosystem services

C3 Sustainable soil management

C4 Innovation and methods for data acquisition

14:15

Coffee Break

14:45

Breakout Session Block C - Continued

15:45

Poster Session & Welcome drinks

17:30

End of Day

Meeting of Advisory Board

WEDNESDAY

12

09:00

Workshops

National
Coordinators
Session

Science to
Advisors

Science to
Policy

10:30

Coffee Break

10:50

Young scientists summarise poster
sessions & poster prizes

11:35

Walk to train station

12:30

Train departs

Lunch provided on board

14:00

Field Trip

18:00

Social Dinner

21:00

Train to return to city



THURSDAY

13

- | | |
|-------|--|
| 09:00 | Opening and introduction of the day |
| 09:15 | Carbon Sequestration Session |
| 10:45 | Coffee Break |
| 11:15 | Monitoring Soil Health Session |
| 12:45 | Lunch |
| 13:45 | Sustainable Soil Management
Options Session |
| 15:15 | What's next after EJP SOIL? |
| 16:00 | Official end of event &
Coffee Break |
| 16:30 | -By Invitation Only -
Open discussion on Implementing
the EU Soil Monitoring Directive in
Member States |
- 



FRIDAY

14

-By Invitation Only-

- | | |
|-------|---|
| 09:00 | Board of Programme Managers Meeting |
| 09:00 | Project Meetings
BIOCASH, SOMMMIT,
Into-Dialougue |
| 10:10 | Joint Executive Committee & Board of
Programme Managers , Programme
Owners, EC Steering Group meeting |
| 11:00 | Coffee Break |
- 

BREAKOUT SESSIONS

Mon 10th Jun 15:15 - 17:15

A1

Carbon sequestration at national and European scale & effects of policy and socio-economic factors

A2

Leveraging different approaches in the development of farmer-friendly tools or sustainable soil practices and schemes

A3

Open science and ethics

Tue 11th Jun 09:00-11:30

B1

Carbon sequestration & trade-offs

B2

External organic matters for circular economy

B3

Indicators for soil ecosystem services

Tue 11th Jun 13:30-16:00

C1

Carbon sequestration, roots & amendments

C2

Soil biodiversity & ecosystem services

C3

Sustainable soil management

C4

Innovation & methods for data acquisition

A1

Carbon sequestration at national and European scale & effects of policy and socio-economic effects

Conveners: **Felix Seidel, Muhammad Anjum**

15:15 Welome

15:18 A first glance at carbon sequestration potentials of agricultural measures at European scale from the CarboSeq Project
Felix Seidel

15:30 Increasing the share of forage leguminous crops in the crop rotation positively affects the soil organic carbon stocks – Analysis of European LTEs
Ioanna Panagea

15:42 Poster teasers

15:52 Effect of anthropogenic soil management for increasing soil organic carbon status in Lithuanian acid soil
Ieva Mockeviciene

16:04 Some indicators of organic carbon status in Norwegian agricultural soils
Tatiana F. Rittl

A1

Carbon sequestration at national and European scale & effects of policy and socio-economic effects

- 16:16 Assessing soil carbon sequestration in the Netherlands by enhancing a dynamic soil organic carbon turnover model using Earth Observation data
Chantal Hendriks
- 16:40 Poster Teasers
- 16:46 Applying the SOMMIT index at the European scale to quantify reduced fertilization
Muhammad Anjum
- 16:58 Roadmap for improvement of carbon sequestration in the Netherlands
Jennie Van der Kolk



A2

Leveraging different approaches in the development of farmer-friendly tools or sustainable soil practices/ schemes

Conveners: **Morten Graversgaard, Meriem Jouini, Francesco Galioto, Monika Vilkiene**

15:15 More than a Dialogue between actors, seeking the integration of soil-based principles in agroecological systems

Francesco Galioto

15:25 Living Labs to support sustainable soil management practices and the implementation of decision-support Tools in Europe

Meriem Jouini

15:30 Advancing carbon farming in Europe: Insights and challenges from research and policy perspectives

Morten Graversgaard

15:35 Policy gaps and inconsistencies in addressing agricultural soil health challenges in the EU and Turkey

Francesca Varia

A2

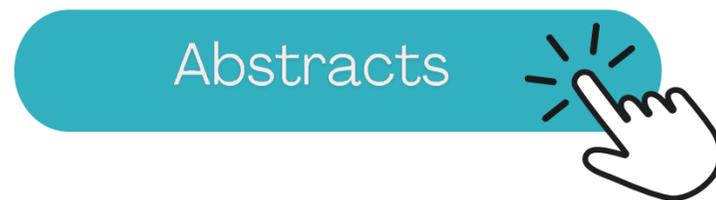
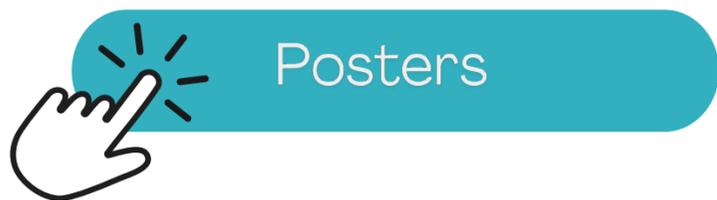
Leveraging different approaches in the development of farmer-friendly tools or sustainable soil practices/ schemes

15:50 Enhancing Soil health through values-based business models
Ennio Facq

16:10 Identifying farmers' priorities in soil management for climate adaptation to develop attractive support measures
Mariella Schreiber

16:30 Assessing Agri-Environmental Footprints and Pathways to Net-Zero: Insights from Process-Based and Whole-Farm Models
Ibrahim M. Khalil

16:50 Developing a Carbon farming framework supporting Ireland to meet its climate targets
Saskia Visser



Convener: **Anna Besse-Lotoskaya**

15:15 Welcome

15:20 Open access to scientific publications; sharing abstracts, presentations and datasets underlying articles
Anna Besse

15:45 Sharing soil data: metadata, repositories and licenses
Maria Fantappie

16:15 Discussion on challenges in data management and possible solutions
WP6 Team



B1

Carbon sequestration & trade-offs

Conveners: **Kristiina Lång, Eugenio Diaz-Pines**

9:00 Effectiveness of soil management strategies for mitigation of N₂O emissions in European arable land: A meta-analysis
Elena Valkama

9:15 The effect of conservation agriculture interventions on greenhouse gas emissions in European temperate systems
Andrew Gregory

9:30 Policy measures effectively reduce soil nitrous oxide emissions with minor trade-offs in crop yield
Sophie Zechmeister-Bolternstern

9:45 No net carbon sequestration by willow on a cultivated peat soil
Henri Honkanen

10:00 Understanding the Role of Phosphorus Fertilisation: Long-Term Effects on Nitrogen Cycling, Carbon Sequestration and Greenhouse Gas Emissions in European Agricultural Soils
Lea Dannenberg

B1

Carbon sequestration & trade-offs

Conveners: **Kristiina Lång, Eugenio Diaz-Pines**

11:00 Sustainable Management of soil Organic Matter to Mitigate Trade-offs between C sequestration and nitrous oxide, methane and nitrate losses: The SOMMIT Project
Eugenio Diaz-Pines

11:15 C-arouNd: Refining Soil Conservation and Regenerative Practices to Enhance Carbon Sequestration and Reduce Greenhouse Gas Emissions
Melissa Ananias Soler da Silva

11:30 Poster Teasers



Posters

Abstracts



B2

External organic matters for circular economy

Conveners: **Sabine Houot, Walter Rossi Cervi**

- 9:00 Soil Organic Carbon in farm level economic models: data needs for considering local specific contextual factors
Walter Rossi Cervi
- 9:15 Economic, soil health and environmental impacts of use of renewable fertilisers at farm level in the EU
John Helming
- 9:30 Assessing agronomic and environmental impacts of external organic matter amendments in diverse agricultural practices: a comprehensive study
Seheno Rinasoa
- 9:45 Renewable horticultural substrates as source of external organic matter: the link between circular horticulture and soil friendly practices
Bart Vandecasteele
- 10:00 The effects of cattle manure and straw co-digestion on the digestate carbon stability
Elina Tampio
- 11:00 Poster Teasers
- 11:10 Bottom-up dialogue with local actors of biochar and digestate value chains in Italy
Irene Criscuoli
- 11:25 Poster Teasers



Posters

Abstracts



Conveners: **Lorenzo D'Avino, Antonio Bispo, Maria Fantappie, Isabelle Cousin, Sophie Cornu**

- 9:00 What is the consequence of the definition of soil ecosystem services
Jessica Reyes-Rojas
- 9:10 Recommended indicators to assess soil health proposal from EJP SOIL
Antonio Bispo
- 9:20 Comparing soil fauna parameters and ecological indices to evaluate agronomic tillage
Lorenzo D'Avino
- 9:30 Comparing soil properties between LUCAS Soil and National Soil Information Monitoring System (N-SIMS)
Claire Froger
- 9:40 High-resolution thematic soil mapping at EU level based on the combined use of LUCAS
Elena Tondini
- 9:50 Harmonized soil biodiversity database to describe ecological status and soil health (MINOTAUR)
Rajasekaran Murugan

B3

Indicators for soil ecosystem services

Conveners: **Lorenzo D'Avino, Antonio Bispo, Maria Fantappie, Isabelle Cousin, Sophie Cornu**

11:00 An approach for mapping Net Ecosystem Productivity (NEP) as a pragmatic indicator of soil ecosystem service greenhouse gas (GHG) regulation including carbon sequestration in EU Member States
Romina Lorenzetti

11:10 Assessment of temporal dynamics of soil microbial biodiversity
Sara Del Duca

11:20 The EJP SOIL ARTEMIS framework for on-farm monitoring of the impact of agroecological systems on soil quality and soil ecosystem services
Ioanna Panagea S.

11:30 Scientific indicators and stakeholders' perceptions on soil threats in France: how do they compare?
Eloise Mason

11:40 Poster teasers



Posters

Abstracts



C1

Carbon sequestration, roots & amendments

Conveners: **Henrike Heinemann, José A. González-Pérez**

13:15 What is the stability of additional organic carbon stored thanks to alternative cropping systems and organic wastes products application? A multi-methods evaluation

Claire Chenu

13:30 Using direct analytical pyrolysis (Py-GC/MS) to characterize SOM and explore processes and humification drivers

José A. González-Pérez

13:45 Root derived carbon input to soil: a case study for wheat varieties using a stable isotope approach

Celia Fernández-Balado

14:00 Poster Teasers

C1

Carbon sequestration, roots & amendments

Conveners: **Henrike Heinemann, José A. González-Pérez**

14:45 Modelling belowground C inputs in agricultural soils key processes and current limitations
Daniel Rasse

15:00 Improving the sustainability of arable cropping systems by modifying root traits: a modelling study for winter wheat
Nicholas Jarvis

15:15 Cover Crops Affect Pool Specific Soil Organic Carbon in Cropland – a Meta-analysis
Julia Fohrafellner

15:30 Climate change adaptation and mitigation potential by variety selection of winter wheat
Fabien Durand-Maniclas



Posters

Abstracts



Conveners: **Julia Schröder, Dylan Warren Raffa, Klaus Jarosch**

13:15 Response of spontaneous flora to ecological intensification in a fruit and arable system in Mediterranean conditions: an overview of the communities' potential contribution to soil C input and storage

Elena Testani

13:30 Microbial Carbon Use Efficiency of Plant Root Exudates Depends on the Substrate and Relative Nitrogen Availability

Koyama Takuma

13:45 Functional and taxonomic microbial diversity profiling across soil depth in a diversified cover cropping system in the Netherlands

Maria-Franca Dekkers

14:00 Poster Teasers

Conveners: **Julia Schröder, Dylan Warren Raffa, Klaus Jarosch**

14:45 Assessing the Influence of Long-term Agroecological Practices on Soil Microbial Functional Diversity and Metabolic Activity
Arman Shamshitov

15:00 Effect of agroecological intensification on crop mycorrhization, soil macroaggregates and related C content by SEM-EDS
Alessandra Trinchera

15:15 Soil nitrogen pool dynamics in an agroecological gradient
Antonio Rodríguez

15:30 Poster Teasers



Posters

Abstracts



Conveners: **Lisbeth Johannsen, Olivier Heller, Alejandro Romero**

13:15 Welcome

13:17 SCALE – Managing Sediment Connectivity in Agricultural Landscapes for reducing water Erosion impacts
Lisbeth Johannsen

13:29 Predicting soil carbon removal by erosion in hillslope environments by erosion-deposition modelling could improve C cycle assessment
Chiara Piccini

13:41 Buffer zone efficiency under ploughing, direct drilling and grazing in boreal conditions
Jaana Uusi-Kämppä

13:53 Collaborative Design of erosion and sediment transport control measures at watershed scale in agricultural landscapes: Insights from stakeholders
Victor Castillo

14:05 SoilX: Soil management impacts on soil structural properties in ten European long-term experiments
Olivier Heller

Conveners: **Lisbeth Johannsen, Olivier Heller, Alejandro Romero**

14:45 SoilCompaC: Consequences of soil compaction on yield and the environment: a modelling study
Alejandro Romero-Ruiz

14:57 Soil compaction risk under climate change: an analysis for different pedoclimatic zones in Europe
Mathieu Lamandé

15:09 Potential for carbon sequestration on arable land under the limitations of the Flemish manure legislation
Tommy D'Hose

15:21 Towards enhanced adoption of soil improving management practices in Europe
Frédéric Vanwindekens

15:33 Poster Teasers



Posters

Abstracts



Conveners: **Emmanuelle Vaudour, Luboš Borůvka**

- 13:15 Session introduction and STEROPES presentation :
Influence of soil texture on the possibilities to
estimate soil organic carbon using Sentinel-2 data
Emmanuelle Vaudour
- 13:35 Semi-automatic supervised bare soil pixels
retrieval: impact of different classification
approaches on soil organic carbon prediction
Luboš Borůvka
- 13:50 Effects of Vegetative Covers on Soil Properties in
Semi-Arid Areas: Insights from the
SANCHOSTHIRST Project
Maria Jose Marques
- 14:05 Poster Teasers & Discussion

C4

Innovation & methods for data acquisition

Conveners: **Emmanuelle Vaudour, Luboš Borůvka**

- 14:45 PROBEFIELD presentation: In-situ measurement of surface soil reflectance with SoilPRO[®] apparatus
Luboš Borůvka
- 15:00 Adjustments of the Rock-Eval[®] thermal analysis for SOC and SIC quantification: application on calcareous soils and soil fractions
Joséphine Hazéra
- 15:15 Advancements in non-invasive soil salinity monitoring: integrating electromagnetic induction, inversion, and remote sensing techniques
Mohammad Farzamian
- 15:30 Mapping compost and digestate spreadings from Sentinel-2 and Sentinel-1 on a farm scale
Emmanuelle Vaudour

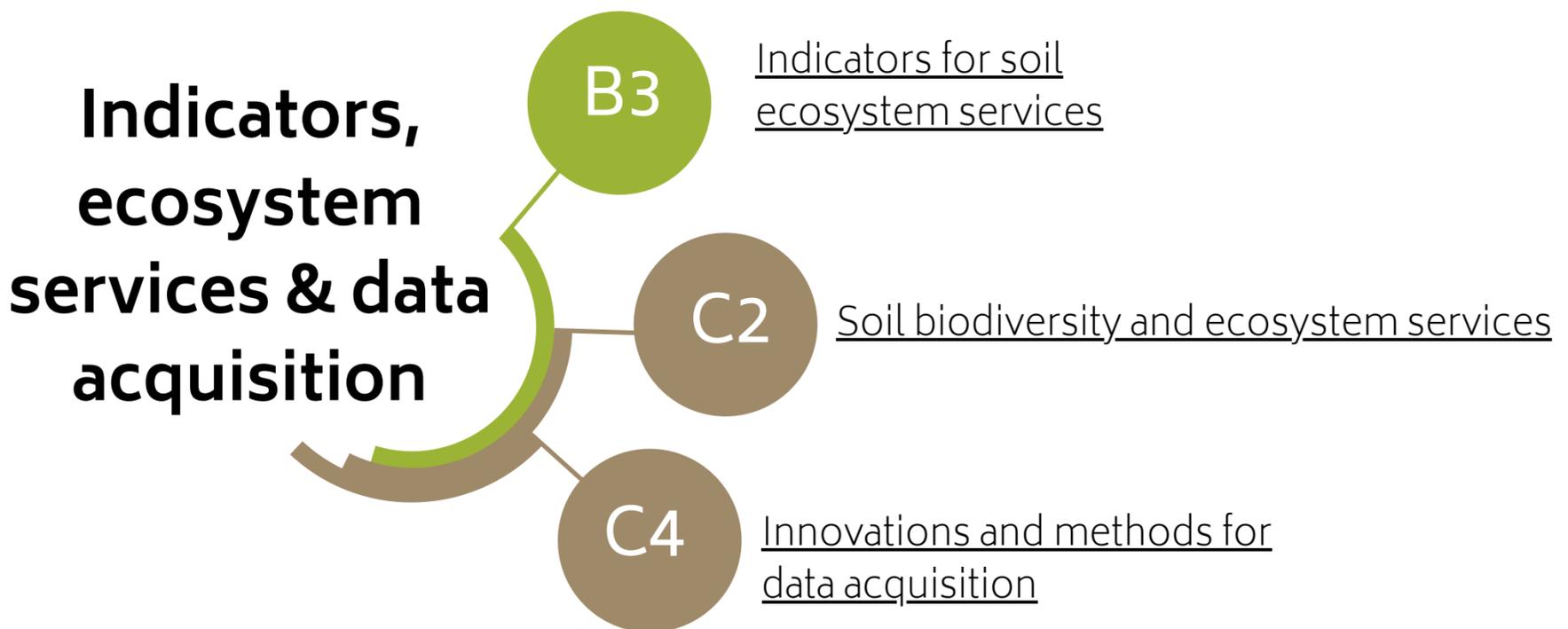
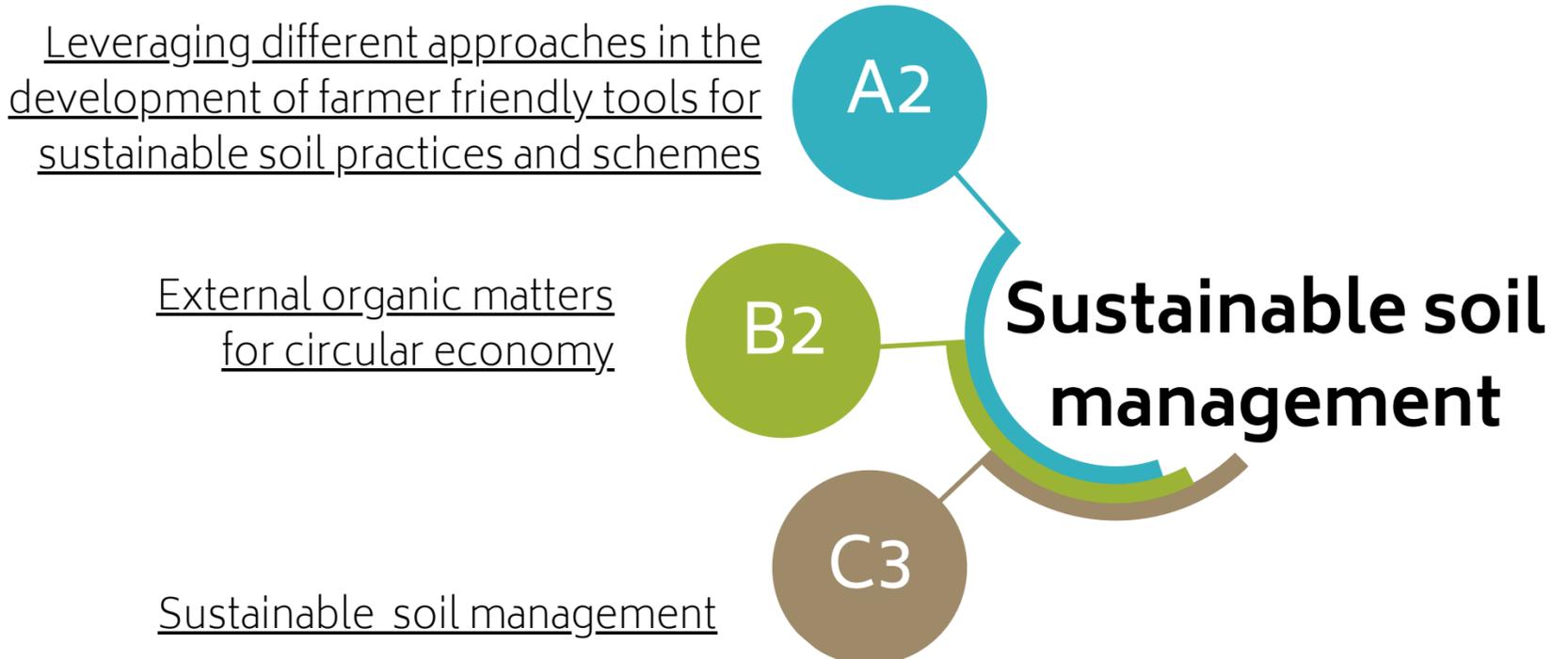
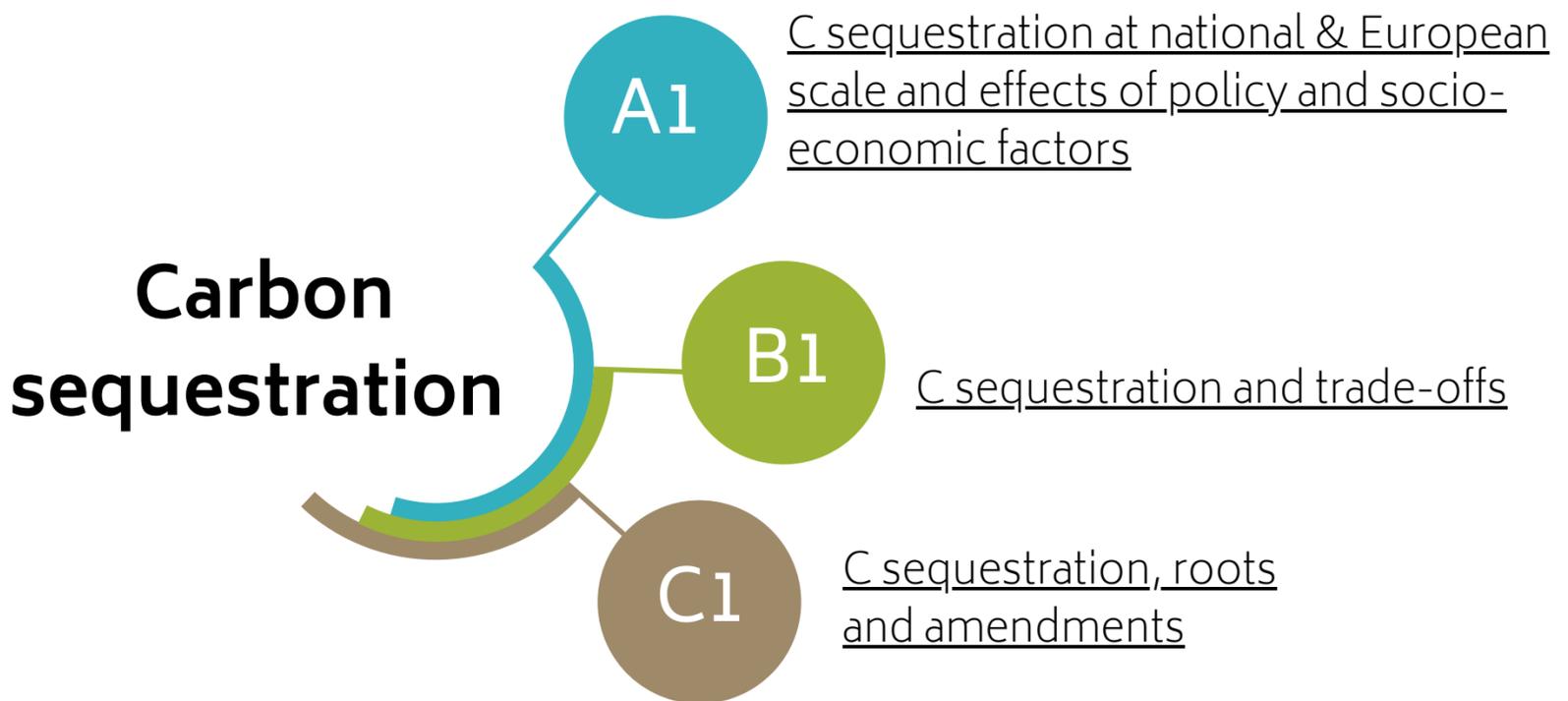


Posters

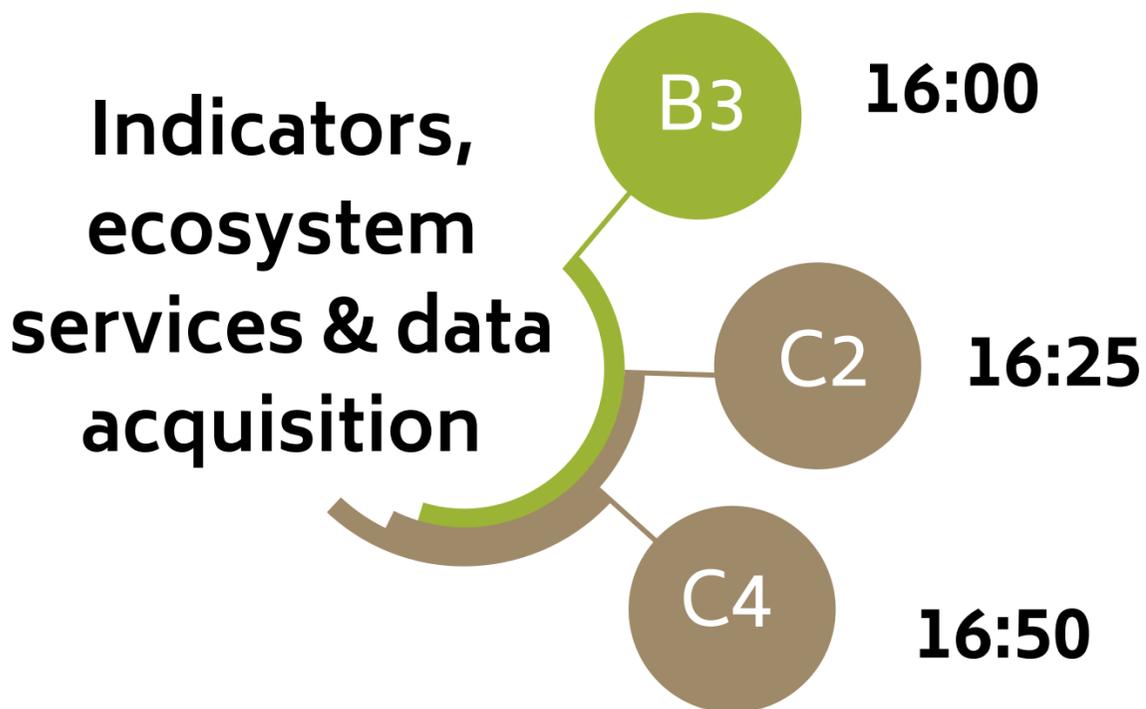
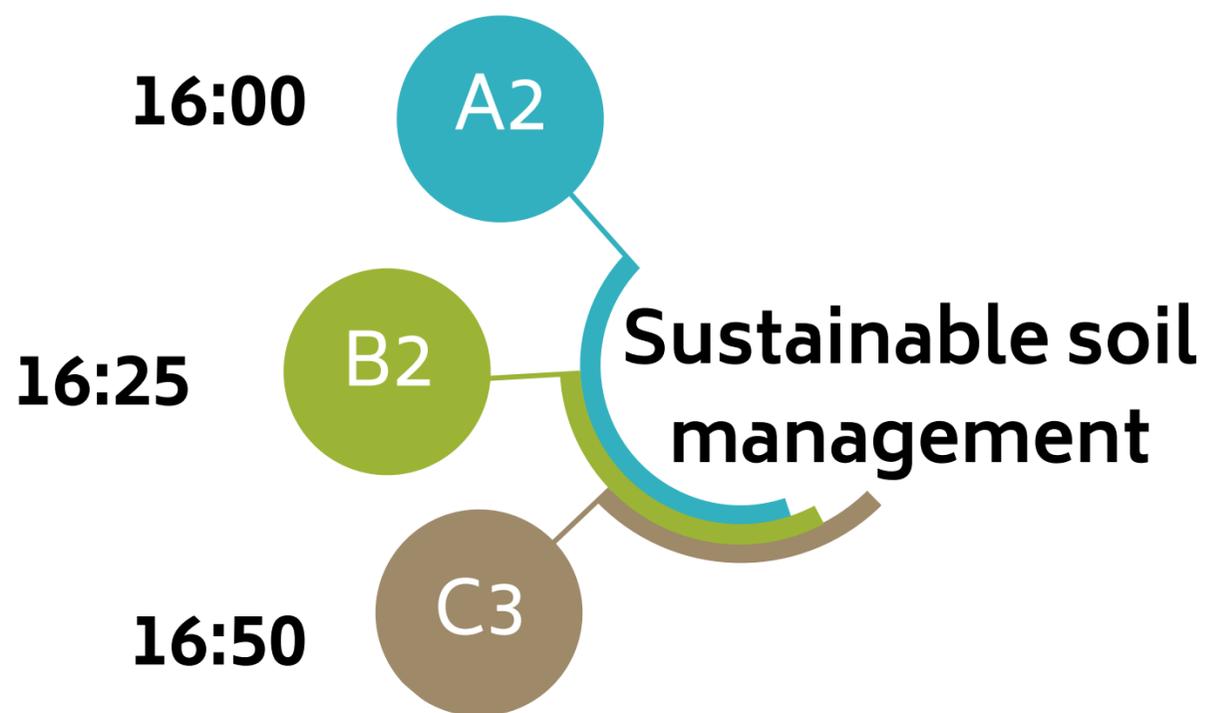
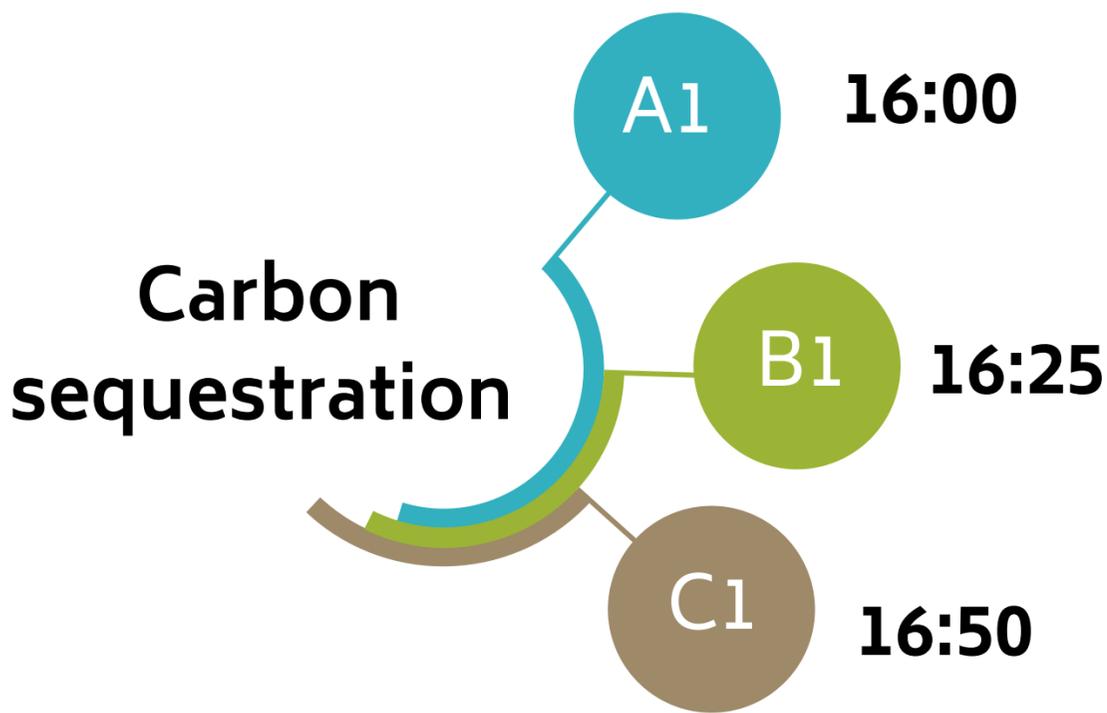
Abstracts



POSTER ISLANDS



POSTER TOUR SCHEDULE



A1

Carbon sequestration at national and European scale & effects of policy and socio-economic effects

POSTERS

Sensitivity analysis of a Roth-C based model

Kaat Mertens

Exploring Soil Organic Carbon Persistence for Sustainable Land Management Practices: A Thermal Analysis Approach

Johanna Maria Zenner

Relevance of the organic carbon to clay ratio as a national soil health indicator

Antonio Bispo

Effects of different crop management options on SOC stocks and deriving emission factors – the CarboSeq approach based on European LTEs

Ioanna Panagea

Dynamics of Soil Organic Carbon Stocks on Arable Land under Varied Soil Management and Climate Scenarios: Insights from Long-term Experiments in Eastern Slovak Lowland

Gabriela Barančíková

Synthesis of knowledge availability and knowledge needs in carbon research across European agricultural soils

Martina Kittinger

A1

Carbon sequestration at national and European scale & effects of policy and socio-economic effects

POSTERS

Carbon footprints result from livestock production in Poland based on NPC tools from CCCFarming project - limitations and perspectives

Adam Cieslak

A meta-analysis and modelling exercise on the GHG trade-offs of soil carbon sequestration measures

Chantal Hendriks

Analyzing efficient incentive mechanisms of carbon farming: A mixed-method approach

Raina Nidhi

Roadmap for improvement of carbon sequestration in the Netherlands

Jennie Van der Kolk



Schedule

Abstracts



B1

Carbon sequestration & trade-offs

POSTERS

Long-term crop residue management effects on the greenhouse gas fluxes: an Austrian case study

Ulises Ramon Esparza-Robles

Effects of long-term soil organic matter decline on soil nutrient status and organic matter composition in organically managed grass-clover ley and permanent pasture in Norway

Jeroen Zethof

The impact of long term compost application on soil N₂O emissions

Peter Maenhout

The impact of over a century of different organic fertilization on the properties of soil organic matter and water holding capacity

Edyta Hewelke

Can pore water nutrients and high frequency water table data improve estimation of CO₂ emission from rewetting peatlands?

Andres F. Rodrigues

Trade-off analysis of conventional and organic crop rotations under current and future climate scenarios in Finland

Roberta Calone

Thermal and physical soil organic carbon fractions in French topsoil and subsoil monitoring network

Amicie Delahaie



Schedule

Abstracts



C1

Carbon sequestration, roots & amendments

POSTERS

Soil carbon sequestration: insights from different farming practices

Karin Kauer

A simple soil profile-scale model of organic matter turnover accounting for physical protection and priming: calibration and sensitivity analysis

Nicholas Jarvis

The impact of cover crop roots in soil carbon input across a European gradient

Monika Toleikienė

Impact of grassland management on soil carbon storage, CarboGrass

Lutz Merbold

A trans-European decomposition index study in arable soils, focusing on the impact of plant diversity using a common ^{13}C -labelled litter

Rebecca Hood-Nowotny



Schedule

Abstracts



A2

Leveraging different approaches in the development of farmer-friendly tools or sustainable soil practices/ schemes

POSTERS

Soil health challenges and farmers adaptation strategies: transition pathways in Türkiye and the European Union

Francesco Galioto

Knowing and needs on soil quality indicators for agroecological practices: results from a systematic review of long-term experiments in Countries participating in “Into Dialogue” EJP Soil project

Sabine Asins

A novel method to support the discussion of soil management PRACTices and development of decision support TOols through LIVing labs in EU (PRAC2LIV)

Danielle Ooms

Identification of drivers and barriers to the acceptability of agroecological land management practices for farmers in the EU and Turkey

Martin Písarčík



Schedule

Abstracts



POSTERS

The DeliSoil Project - Delivering safe, sustainable, tailored & socially accepted soil improvers from circular food production processes for boosting soil health

Ansa Palojarvi

Effects of Anaerobic Digestates and Biochar Amendments on Soil Health, Greenhouse Gas Emissions, and Microbial Communities: A Mesocosm Study

Alessandra Lagomarsino

Biological activation and N enrichment as tool to optimize biochar-based fertilizers

Bart Vandecasteele

Impacts of biochar on nitrous oxide emissions and ammonia volatilisation in wheat and maize cropping systems

Rebecca Hood-Nowotny

Shrimp shells valorization for chitosan and chitosan nanomaterial synthesis and their applications as antimicrobial agents in agriculture.

Ahmed Hosney

A stocktaking of long-term field experiments in Europe dealing with the application of exogenous organic matter: current knowledge, gaps and perspectives

Simon Sail

B2

External organic matters for circular economy

POSTERS

Effects of sheep wool pellets and black soldier fly (*Hermetia illucens*) frass on soil biota

Merrit Shanskiy

The impact of Black Soldier Fly (*Hermetia illucens*) larvae frass on the abundance and diversity of springtails (*Collembola*) and on cereal crop yield

Rihard Reissaar

The impact of various organic materials in pot experiments on the survival of forest trees

Annely Kuu

Short-term study on the fate of organic contaminants in soil after the application of biowaste compost or biogas digestate

Antonio Martín-Esteban

Assessment of the presence of microplastics in compost samples

Paloma Sánchez-Argüello



Schedule

Abstracts



POSTERS

The FAST method for visual assessment of soil aggregate stability

Julien Wengler

Effects of Long-Term Soil Compaction on Physical Parameters and Carbon Stocks under Pannonian Conditions

Paul Riedl

Linking soil resistance and earthworm abundance

Pia Euteneuer

Effect of Agricultural Management on Soil Properties of Two Different Soil Types in the Czech Republic

Miroslav Fér

The use of computed tomography to study the effect of fertilization on soil structure during a long-term experiment

Klement Aleš

Soil properties and wheat yield in headlands: results from field scale experiments in Cambisol and Retisol in Lithuania

Gražina Kadžienė

POSTERS

A Review On Microplastics In European Soil: Occurrence, Sources, Analytical Methods, And Potential Ecological Risk

Skaistė Dreskinienė

Carbon dioxide (CO₂) and Methane (CH₄) annual emissions from drained and undrained forest Terric Histosols

Egidijus Vigrिकास

ClimateCropping: Climate Smart Management for Resilient European Cropping Systems

Sharon O'Rourke

Teaching agricultural soil biology to support sustainable crop production under pending climate change conditions by semi-saline irrigation

Anais Chanson

The Impact of Ploidy on Daylily Plant Resilience in Drought Conditions

Edvinas Misiukevičius



Schedule

Abstracts



POSTERS

SoilManagerR – An R package to derive soil management indicators

Oliver Heller

New soil quality monitoring tools in the Soil Web Portal of Sardinia (Italy) automatic calculation of SEs at regional scale

Stefania Fanni

Adaptability of tillage practices for waterlogging risk reduction on two soil types with different texture

Dalia Feiziene

An innovative approach based on machine learning and satellite data to assess the impacts of land-use change in Europe on soil carbon sequestration'

Jean-Sauvier Ay

Soil-ES a methodological proposal for evaluating soil ecosystem services

Rachel Bardy Prado

National soil data in EU countries, where do we stand

Sophie Cornu



B3

Indicators for soil ecosystem services

POSTERS

Comparison of national and LUCAS soil datasets for soil health mapping and assessment

Azamat Suleymanov

Harmonized soil biodiversity database to describe ecological status and soil health (MINOTAUR)

Murugan Rajasekaran

The advantage of a dense grid Comparing LUCAS Soil and the German Agricultural Soil Inventory regarding the distribution of soil organic carbon

Stefan Heilek

Towards soil health assessment establishing a unified framework for monitoring soil microbial diversity across Europe

Sara Del Duca

The influence of covariates and sample density on digital soil mapping

Azamat Suleymanov



Schedule

Abstracts



POSTERS

Cover crop diversification alters microbial life-death cycle and enhances carbon sequestration in agricultural soil

Alexander König

The effect of crop diversification and season on microbial carbon use efficiency across a European gradient

Julia Schröder

A guideline for estimating carbon use efficiency with the ^{18}O method

Antonio Rodríguez

Integrated modelling of microbial-plant interactions in multi-species agroecosystems: the project MODIMIV

Gianni Bellocchi

Exploring the interplay of plant and soil biodiversity in mediating soil organic carbon dynamics in European agroecosystems

Dylan Warren Raffa

Regional Assessment of Soil Organic Matter Stability under No-till and Diversified Agricultural Management Practices

Skaidre Suproniene

POSTERS

Soil-, management-, and climate-related drivers of yield stability in organic and conventional farming systems

Klaus Jarosch

Effects of different agriculture practices on ecosystem services in cereal fields worldwide

Margarita Ros

Analysis of soil microbial community associated with cereal crop under sustainable managements in different European countries

Margarita Ros

Exploring Endophytic Bacteria from *Artemisia* spp.: Antagonistic Potential Against Pathogens and Contributions to plant growth promotion

Shervin Hadian

Increases of organic contents of soils through *Taloromyces funiculosus* application

Akin Un



Schedule

Abstracts



POSTERS

The impact of different fertilization on total organic carbon content and the spectroscopic properties of soil organic matter after fifty five years of rye and maize monocultures

Lilla Mielnik

Unveiling soil properties from FTIR spectra

Rafael López-Núñez

Temporal S₂/S₁ mosaics combined with environmental covariates for regional SOC mapping: lessons from la Beauce (France) and the Västra-Skaraborg (Sweden)

D. Urbina-Salazar

Mapping soil organic carbon content by combining time series of Sentinel-2 and Sentinel-1 with vis-NIR laboratory spectra – Application to study site in Brittany (France)

Y. Fouad



Schedule

Abstracts



SPEAKER PROFILES

Gintaras Brazauskas

Director of the Lithuanian Research Centre for
Agriculture and Forestry (LAMMC), Lithuania

Gintaras Brazauskas concurrently holds the position of Chief Researcher at the Institute of Agriculture within LAMMC. His scholarly pursuits primarily revolve around the identification and expression analysis of plant adaptation genes, alongside the development and integration of plant phenotyping systems. Dr. Brazauskas is renowned for his expertise in the development and utilization of DNA markers within the domains of cereal and perennial grass breeding.

Kęstutis Navickas

Minister of Agriculture
Ministry of Agriculture of the Republic of Lithuania
Member of the Parliament of Lithuania

The objective of the Ministry of Agriculture is to shape public policy in the areas of the agri-food sector, fisheries (except for conservation and control of fish stocks in inland waters), rural development, land reform, land-use planning, geodesy, cartography, real estate cadastre, state control of land use, engineering development and technical progress of infrastructure in agricultural and rural areas, development of renewable energy resources, research training, education, application of innovative technologies in the fields of agriculture, food industry and fisheries, land reclamation and reclamation investment, plant production, livestock sector, plant protection, seed production, breeding, fish farming, phytosanitary and veterinary, and national heritage, as well as organize, coordinate and control the implementation of the above public policy.



SPEAKER PROFILES

Justas Nugaras

The Vice-Minister of Education, Science and Sport

Justas Nugaras is responsible for studies, science and technology issues in the Ministry: the development of the quality of higher education activities, teacher training, science and business cooperation, coordinates the activities of the Study Quality Assessment Center, the State Study Fund, and state research institutes. His activities are mostly related to the strategic changes in the field of higher education, strategic management and public affairs. Previously, J. Nugaras was the Dean of the Antanas Gustaitis Aviation Institute of the Vilnius Gediminas Technical University, advisor to the rector, held various positions in the university administration, the Senate, the Council, the Study Quality Assessment Center, national and international working groups.

Tautvydas Beinoras

Head of Lithuanian non-arable conservation agriculture association; Chief Executive Officer at Agrokonsultacija Tau, UAB. T.

Tautvydas Beinoras represents tens of farmers from all over Lithuania and coordinates the interests of representatives of non-arable agriculture. As head of the association, T. Beinoras contributes to the popularization, improvement and development of sustainable and regenerative agriculture technologies in Lithuania, coordinates the activities of members in solving the complex application of no-tillage sustainable technology in the field of crop production, quality improvement, economy and ecology and other problems.





SPEAKER PROFILES

Katharina Helming

Vice-director Leibniz Centre for Agricultural Landscape Research (ZALF)

Co-Chair 'Agricultural Landscape Systems'

EJP SOIL Advisory Board Chair

Katharine Helming is vice-director of the Leibniz Centre for Agricultural Landscape Research (ZALF) and professor for Sustainability Assessment at the University for Sustainable Development Eberswalde, Germany. Katharina is trained as an agronomist and soil scientist and she has 30 years experience of research on agriculture, soil conservation and sustainable land use in Europe, USA, China and Central Asia. Her current research is about societal aspects and anticipatory sustainability assessment of soil management.

Pablo Tittonell

WWF Prof. of Agroecology and Sustainable Landscapes
Groningen University

Prof. Pablo Tittonell is the holder of the Agroecology and Sustainable Landscapes Chair at the University of Groningen, the Netherlands, and Senior researcher at CIRAD, France. His expertise includes agroecology, soil fertility and biodiversity, and focuses on human-nature interactions in multifunctional landscapes and their adaptation to global change. He holds a WWF-endowed Chair on Resilient Landscapes for Nature and People at the Groningen Institute of Evolutionary Life Sciences, and has been nominated Principal Research Scientist by Argentina's National Council for Science and Technology (CONICET) since 2017, formerly with a seat at the Instituto Nacional de Tecnología Agropecuaria (INTA), in San Carlos de Bariloche, Argentina. In Argentina, he acted as national coordinator of the Natural Resources and Environment Program of the Ministry of Agriculture until 2018, coordinating the work of more than 1500 researchers nation-wide.



SPEAKER PROFILES

Christian Holzleitner

DG Climate

Christian Holzleitner is currently Head of Unit responsible for Land economy and Carbon removals at the European Commission's Directorate-General for Climate Action. Previously, he worked as Head of Unit for Finance for Innovation and Land Use and assistant to the Director-General for Climate Action covering all issues related to EU and international climate policy; and at the Directorate-General for Competition in the area of State aid for services of general economic interest in the postal, transport, and health sectors.

Emmanuel Petel

DG Agricultural & Rural Environment

Emmanuel PETEL is a policy officer at the Directorate-General for Agriculture and Rural Development (DG AGRI) at the European Commission. Currently, he is working on the integration of environmental concerns into the Common Agricultural Policy (CAP), in particular in relation to soil health and carbon sequestration and on the promotion nature-based practices such as agroforestry, agroecology, regenerative agriculture. During last programming period (2014-2022), he led a team to manage a "greening" payment: 30% of the direct payments granted to the farmers who respected some basic practices: crop diversification, maintenance of permanent pasture, setting up an ecological focus area on the arable land by promoting landscape features.

As regards the CAP post 2023, Emmanuel PETEL has been involved in the implementation of a new greening architecture (enhancing certain requirements and providing a new funding opportunity such as eco-scheme). Therefore, he has contributed to assess the strategic CAP plan for some Member States, in order to achieve better ambition in relation biodiversity and protection of soil.

Emmanuel PETEL in close cooperation with the Directorate-General for Environment (DG ENV) is taking part in the development for a new legal framework for soil protection especially on the soil monitoring law proposal.



SPEAKER PROFILES

Panagos Panos

Joint Research Centre

Panagos Panos has a PhD in soil erosion modelling awarded from University of Basel. He also received a Master in Business Administration (MBA) in University of Patras (2005-2010). He joined the European Commission - Joint Research Centre in 2001 with duties in database administration and development of GIS and Web applications. He has participated in the many FP5, FP6 and FP7 projects EUROHARP, PECOMINES, EWCZ-EuWASP, Geoland-2, DIGISOIL, I-Soil, eSoter, SoilTrEC, CASCADE, EcoFinders, RE CARE. He joined the Land Management and Natural Hazards Unit in 2006 and then the Land Resource Management Unit in 2012.

Fernando Moyano

Climate Farmers

Fernando Moyano graduated as a Biologist from the University of Cordoba, Argentina. He then moved to Germany where he worked at the Max Planck Institute for Biogeochemistry and obtained a PhD in the field of Geoecology and Soil Science. His contribution to the field of greenhouse gas emissions and general carbon cycle in soils and land vegetation is evident in a number of well cited publications. Much of his work has focused on the development of numerical models, both statistical and process-based, that are used to explore and explain biogeochemical processes. More recent work focuses on the analysis of geospatial data to explore the link between global land cover changes and dynamics of atmospheric CO₂.

Anna Trettenero

Confagricoltura Vicenza Farmers Union

Anna Trettenero studied Agricultural Science and graduated cum laude from University of Padua, Italy as an Agronomist. Scholarship: University of California at Davis 1989-90, USA. Along with two business partners, Anna runs a 100 Ha row crop farm in North Eastern Italy, where she pioneered Conservation Regenerative Agriculture starting in 2005.



LITHUANIA'S HISTORY

The first known reference to Lithuania as "Litua" (in Lithuanian, Lietuva) comes from a record of Saint Bruno's loss of life in the annals of the Quedlinburg Chronicle and is dated March 9, 1009. In the 11th century, facts about Lithuania also appear in the Ruthenian chronicles. From the 12th century, written sources refer to Lithuanians as people making plundering raids into neighbouring territories. Lithuanians belong to the Baltic group of Indo-European people. The Balts settled at the Baltic Sea as far back as the 3rd and 2nd millennium BC. They lived on the territory between the lower Vistula (Wisla), the basins of the Nemunas (Neman) and the Daugava (Dvina) up to the riverheads of the Volga, Oka and Dnepr. The first ruler to have united Lithuanian tribal groups and founded the state of Lithuania is considered to be Mindaugas, the first known Grand Duke of Lithuania. In 1251, in order to enhance his power and end the conflict with the Livonian Order, Mindaugas was baptised and crowned King of Lithuania on July 6, 1253. Mindaugas was the first king in Lithuania's history.

In 1569, Lithuania and Poland formed a new confederate state: the Republic of Both Nations commonly known as the Polish-Lithuanian Commonwealth (in Polish, Rzeczpospolita Obojga Narodów, in Lithuanian, Abiejų Tautų Respublika). Both countries, however, preserved their sovereignty and continued to exist in the Polish-Lithuanian Commonwealth as two distinct entities, retaining their separate territories, armies, authorities, treasuries and laws. In fact, the two countries were united only by a jointly elected sovereign and the Seimas (common central legislature). The Northern War that took place at the beginning of the 18th century revealed the weakness of the state and exhausted the country that was constantly afflicted by its own and alien armies. In 1772, the neighbouring countries Austria, Russia and Prussia decided to divide among themselves the ever weakening country distressed by internal conflicts, each annexing part of its territory.

Source: <https://eurydice.eacea.ec.europa.eu/national-education-systems/lithuania/historical-development>

VILNIUS' HISTORY

The historic centre of Vilnius is the cradle of the entire state of Lithuania and a location which is especially significant in the history not only of Lithuania but also of a broad expanse of Eastern Europe, in terms of its political influence, rich architecture, works of art, and the many cultural and scientific ideas that took shape here. This 352 hectare area was inscribed on the UNESCO World Heritage List in 1994, thus recognising its exceptional universal value. The historic centre of Vilnius is a wonderful example of a city that developed organically over the course of more than five centuries. Here one can still find the radial street layout characteristic of the Middle Ages and a wide variety of architecturally valuable buildings, damaged only in certain places by wars and occupations. A portion of the buildings have managed to keep several cultural layers; as styles came and went, such buildings were rebuilt, so a present-day observer can see an architectural mosaic unfold in some buildings.



The Gediminas' Tower



The Glass Quarter in Vilnius'
Old Town



WITH SPECIAL THANKS TO:

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THE EJP SOIL PROGRAMME STRUCTURE AND WORK PACKAGES

The EJP SOIL Programme is divided among ten work packages, each targeted towards specific needs and objectives and to ensure a logical flow of activities.

WP1 Coordination

WP2 Roadmap for EU Agricultural Soil Management research

WP3 Research alignment. Internal calls

WP4 External calls

WP5 Education, training and capacity building

WP6 Supporting harmonised agricultural soil information and reporting

WP7 Synthesis and knowledge integration, access to infrastructures

WP8 Science to policy interaction

WP9 Dissemination and outreach for European scale impacts

WP10 Ethics





The EJP SOIL Consortium

WHAT IS EJP SOIL?

The European Joint Programme on agricultural soil management is a co-funded research programme addressing key societal challenges including climate change and future food supply.

THE IMPORTANCE OF EJP SOIL

The soil contributes to the provision of a wide range of ecosystem services, is a vital support system for biodiversity, and acts as the largest store of carbon on land.

However, it is also a fragile and limited resource threatened by climate change. This threat calls for European agriculture to rise to the challenge of adapting and becoming more resilient to extreme events, and to contribute to climate change mitigation.

The improvement of knowledge and farming practices is fundamental to addressing this challenge and such actions are dependent on social, scientific, political, economic and educational capacities.

The goal of EJP SOIL is to improve the understanding of agricultural soil management by finding research synergies, strengthening research communities and raising public awareness.

EJP SOIL also takes into account the need for effective policy solutions in combination with a strategic multi-actor approach allowing for the initiation of inter-society dialogue and the adoption of best practices.



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