EJP SOIL
European Joint Programme

Annual Science Days & General Meeting

PROGRAMME OF EVENTS
12 - 16 JUNE 2023

University of Latvia
Riga, Latvia

UNIVERSITY OF LATVIA

WITH SPECIAL THANKS TO:

EJP SOIL Organizing committee:

Line Carlenius Berggreen
Claire Chenu
Marie Delattre
Eva Ecker
Raisa Gerasina
Anna Besse-Lototskaya
Sevinc Madenoglu
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Annual Science Days Abstract Titles by Session

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

HANDY INFORMATION

UNDERSTANDING THE BADGES

NATIONAL COORDINATORS

NATIONAL COMMUNICATION REPRESENTATIVES

PROJECT COMMUNICATION REPRESENTATIVES

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 SCAN THE QR CODE ABOVE.

A LOOK AT THE WEEK

MONDAY 12th	AM	Project Meetings
	PM	Annual Science Day 1
TUESDAY 13th	AM	Annual Science Day 2
	PM	Annual Science Day 2 Social Dinner
WEDNESDAY 14th	AM	Annual Science Day 3
	PM	Free / Field Trip
THURSDAY 15th	AM	General Meeting
	PM	General Meeting
FRIDAY 16th	AM	Joint Executive Committee /Board of Programme Managers Meeting
	PM	Project Meetings

MONDAY 12

Annual Science Days 2023

12:00	Registration
13:00	Welcome UL Representative
13:05	Opening Address & Landscape of the EJP SOIL Projects Claire Chenu EJP SOIL Coordinator
13:15	Soil Challenges at the Latvian National Scale Kristīne Sirmā Head of Sustainable Agriculture Development Division Ministry of Agriculture, Republic of Latvia
13:30	Certification of carbon removals & carbon farming Speaker (To be determined) DG Climate
13:50	EJP SOIL Policy relevant project results Project Coordinators
14:50	Coffee Break & Poster Session P1
15:50	Soil Mission Presentation Pandi Zdruli EU Soil Mission Board Representative
16:10	Debate between policymakers and EJP SOIL scientists on EJP SOIL results and their relevance to EU soil policy Moderated by David Wall EJP SOIL WP8 Science to Policy Leader
17:10	End of day one

13 TUESDAY

09:00	Breakout Presentations: Block A
	Session 1: Carbon sequestration at national and European scale
	Session 2: Using participatory design for developing farmer friendly tools for soil practices and schemes
	Session 3: Innovation and methods for data acquisition
10:45	Coffee Break
11:15	Breakout Presentations: Block B
	Session 1: Carbon sequestration and trade-offs
	Session 2: Closing nutrient and carbon cycles
	Session 3: Indicators for soil ecosystem services
13:00	Lunch Break

The book of abstracts for the various sessions can be accessed by scanning the QR code on the right.

You can find a full overview of the breakout presentations and titles of the abstracts to be presented starting on page 17.

TUESDAY 13

14:30	Breakout Presentations: Block C Session 1: Carbon sequestration, roots and amendments Session 2: Soil biodiversity and ecosystem services Session 3: Sustainable soil management Session 4: Scientific research outcomes towards the production and sharing of standardised and harmonised EU-soil data
16:15	Coffee Break & Poster Session P2
17:15	End of day two

The book of abstracts for the various sessions can be accessed by scanning the QR code on the right.

You can find a full overview of the breakout presentations and titles of the abstracts to be presented starting on page 17.

19:00 Social Dinner

14 WEDNESDAY

09:00	Keynote Speaker Tim Searchinger Center for Policy Research on Energy and the Environment
09:30	Quantitative research synthesis to assess the impact of no-till systems on crop yields worldwide David Makowski INRAE
10:00	"The future of soils and agricultural production" a debate / Q&A with Tim Searchinger and David Makowski
10:40	LTE Presentation Tommy D'Hose ILVO

WEDNDESDAY 14

10:55	Coffee Break & Poster Session for recently started EJP SOIL Projects
12:00	Conclusions of the Annual Science Days from the breakout presentations and audience discussion Young scientists and session participants
12:50	Closure of the Annual Science Days Claire Chenu EJP SOIL Coordinator
13:00	Lunch

14:00 Field Trip (Optional)

15 THURSDAY

08:30	Registration
09:00	Welcome Address Niels Halberg EJP SOIL Board of Programme Managers Chair
09:15	EJP SOIL : Progress toward the expected impact Claire Chenu EJP SOIL Coordinator
09:40	Maximizing the EJP SOIL impact Breakout Sessions a) Strengthening soil science capacity and early career opportunities in Europe -**Jennie Barron, Yves Coquet, Christian Walter** b) Implementing open science - **Anna Besse-Lototskaya, Maria Fantappie, Florian Schneider** c) Presenting and communicating EJP SOIL highlights at national level- **Sophie Zechmeister, Line Carlenius Berggreen, Katharina Meurer, Rajasekaran Murugan**
10:40	Coffee Break
11:20	Findings and advice to the EJP SOIL from the Ethics Board Mary Ritter EJP SOIL Ethics Board
11:35	Impact of the EJP SOIL: Panel Discussion Helmut Hönigmayer (EJP SOIL Ethics Board) , Katharina Helming (EJP SOIL Advisory Board), Mattias Leonhard Maier (EC Steering Group)
12:15	Lunch

THURSDAY 15

General Meeting 2023

14:00	Workshops Coordinating the translation and dissemination of scientific outcomes from across the EJP SOIL to policy recommendations David Wall, Line Carlenius Berggreen Hands on the soil data/ information and sharing Maria Fantappiè & Fenny Van Egmond Linking the EJP SOIL to agricultural advisors Amanda Matson
14:45	Coffee Break
15:25	Workshops Coordinating the translation and dissemination of scientific outcomes from across EJP SOIL to policy recommendations David Wall, Line Carlenius Berggreen Hands on the soil data/ information and sharing Maria Fantappiè & Fenny Van Egmond Linking EJP SOIL to agricultural advisors Amanda Matson
16:10	An outlook on the future of agricultural soils research Saskia Keestra EJP SOIL WP2 Leader Carlos Guerra SOLO Project Coordinator EU Soil Mission Board Representative (To be determined)
16:40	Closing Address Anna Besse-Lototskaya EJP SOIL Deputy Coordinator & Thierry Caquet Deputy Chair EJP SOIL BPM

FRIDAY 16

AM	Project Meetings
9:00	Joint meeting of the Executive Committee and the Board of Programme Managers (Invitation Only)
PM	Project Meetings

ANNUAL SCIENCE DAYS BREAKOUT PRESENTATIONS

TUESDAY 13TH JUNE

SCAN FOR BOOK OF ABSTRACTS

Block A 9:00 - 10:45

Session 1:	Session 2:	Session 3:
Carbon sequestration at national and European scale	Using participatory design for developing farmer friendly tools for soil practices and schemes	Innovation and methods for data acquisition

Block B 11:15 - 13:00

Session 1:	Session 2:	Session 3:
Carbon sequestration and trade-offs	Closing nutrient and carbon cycles	Indicators for soil ecosystem services

Block C 14:00 - 15:45

Session 1:	Session 2:	Session 3:	Session 4:
Carbon sequestration roots and amendments	Soil biodiversity and ecosystem services	Sustainable soil management	Scientific research outcomes towards the production and sharing of standardised and harmonised EU-soil data

A1 Carbon sequestration at national and European scale

Conveners: Felix Seidel, Sonja Keel

Oral Presentations

A new framework to estimate soil organic carbon targets in European croplands
Lorenza Pacini

Investigating the reasons behind the choice of funding carbon sequestration initiatives in the European Union
Francesco Galioto

Soil Organic Carbon Sequestration Potential National Map of Turkey
Sevinc Madenoglu

Scenario modelling for assessing impacts of policy changes and socio-economic effects on ecosystem services of soils (SIMPLE)
Sonja Keel

Estimating the effects of different crop management options on SOC stocks and deriving emission factors – the CarboSeq approach based on European long-term field experiments
Ioanna Panagea

Soil organic carbon sequestration potential of agricultural soils in Europe (CarboSeq)
Felix Seidel

Refining Soil Conservation and Regenerative Practices to Enhance Carbon Sequestration and Reduce Greenhouse Gas Emissions
Abad Chabbi

Poster Presentations

Poster Session P1 - Monday 12th June

Koolstoftool: A carbon calculation tool for the farmer
Kaat Mertens

Scenario modelling for assessing impacts of policy changes and socio-economic effects on ecosystem services of soils (SIMPLE)
Sonja Keel

Integrated approach of soil carbon sequestration in the Netherlands
Jennie van der Kolk

Carbon sequestration at international scale : Towards an International Research Consortium on soil carbon
Suzanne Reynders

Where to store additional carbon in European agricultural soils
Florian Schneider

Full inversion tillage as a strategy of accelerating soil carbon sequestration during the renewing permanent pastures and grasslands in Ireland
Niharika Rahman

A2 Using participatory design for developing farmer friendly tools for soil practices and schemes

Conveners: Sabrina Asins, Marjoleine Hanegraaf

Oral Presentations

Stakeholders mapping and engagement in socio-ecological research
Monika Vilkienė

Testing FAO's "TAPE" in Norway: a participatory tool for farmers, policymakers and other stakeholders
Sara Hansdotter

Land-users' perceptions on carbon farming and related rural landscape changes
Morten Graversgaard

Does the EJP SOIL have what agricultural advisors want?
Amanda Matson

Stakeholder and end-user involvement in the formulation and evaluation of terminology for a comprehensive soil health framework
Thomas Weninger / Giuilia Bondi

Investigating policy pathways to enact soil-based agroecological principles in the European and Turkish farming systems
Francesca Varia

Is there a Stakeholder Dialogue when looking for the integration of soil-based principles in agroecological systems?
Sabina Asins-Velis

Fostering soil management PRACtices and uptake and developing decision support TOols through LIVing labs in EU (PRAC2LIV)
Marjoleine Hanegraaf

Poster Presentations

Poster Session P1 - Monday 12th June

Barriers and opportunities of soil knowledge to address soil challenges: Stakeholders' perspectives across Europe
Silivia Vanino

Towards agricultural system innovation through crop diversity in the Living Lab 'Nature inclusive agriculture, North-Netherlands'
Ciska Nienhuis

Participatory approaches to address Water-Ecosystems-Food Nexus challenges: focus on Italian pilot case
Valentina Baratella

A3 Innovations and methods for data acquisition

Conveners: Emmanuelle Vaudour, Johanna Wetterlind

Oral Presentations

STEROPES - Stimulating novel technologies from Earth remote observation to predict European soil carbon
Emmanuelle Vaudour

ProbeField- A novel protocol for in-field monitoring of soil carbon stock, based on proximal sensors and soil spectral libraries
Luboš Borůvka

Apparent electrical conductivity across classes of soil drainage and survey conditions: what performance can we expect from EMI sensors' response revealing soil parameters?
Carlos Lozano Fondon

SANCHO'S THRIST, the effects of cover crops on multiple ecosystem services in woody crops of semiarid areas
Maria Jose Marques

Monitoring soil salinity and using proximal sensing to map soil salinity and soil texture
Maria Conceição Gonçalves

Poster Presentations

Poster Session P1 - Monday 12th June

Sentinel imagery capability in digital SOC mapping in two agricultural regions in France
Diego Fernando Urbina Salazar

Estimation of soil salinity using the electrical conductivity of the saturated soil paste from soil:water extracts in a 1:5 ratio
Nádia Castanheira

B1 Carbon sequestration and trade-offs

Oral Presentations

Conveners: Felipe Bastida, Miriam Gross-Schmoelders, Cristina Aponte

A meta-analysis of field experiments on the effect of organic matter inputs on N2O emissions in European arable land
Elena Valkama

Analyzing the degree of organic matter transformation of rewetted European peatlands in the context of their greenhouse gas emission potential
Miriam Gross-Schmoelders

Greenhouse gas fluxes from a cultivated peatland, northern Norway – implications for climate friendly management
Junbin Zhao

Assessing the Environmental and Productive Implications of Soil Management Strategies for Sustainable Agriculture: A Combined Process-Based Modelling and Fuzzy Logic-Based Index Approach
Roberta Calone

Laboratory estimates obscure the patterns of GHG emissions from agricultural soils
Marta Goberna

B1 Carbon sequestration and trade-offs

Poster Session P1 - Monday 12th June

Poster Presentations

Carbon Farming Geolocation Support by Establishing a Spatial Soil Database Management System: LIFE GEOCARBON
Jose Antonio Pascual

Contribution of different cover crop species to soil organic matter fractions and N2O emissions under Norwegian cereal production
Tatiana F. Rittl

Reduced tillage effects on soil organic matter and greenhouse gas emissions under ambient and reduced rain conditions
Antonios Apostolakis

Climate smart solution for growing medium production based on paludiculture
Tuula Larmola

Long-term management for carbon sequestration in European croplands and its legacy effect on greenhouse gas fluxes
Ulises Esparza-Robles

Towards an improved understanding of soil borne greenhouse gas and ammonia emissions in Flanders
Peter Maenhout

Soil organic carbon under conservation agriculture in Mediterranean and humid subtropical climate: global meta-analysis
Marco Acutis

Drivers for carbon emissions and management alternatives on a poorly drained fen peatland
Andres F. Rodriguez

Effects of different tillage regimes on soil structural characteristics along a pedoclimatic gradient
Loraine ten Damme

Soil management effects on soil organic matter properties and carbon sequestration (SOMPACS)
Jerzy Weber

Crop residue management and N2O emissions: a 12-year experiment on arable cropping systems in northern France
Paul Belleville

B2 Closing carbon and nutrient cycles

Oral Presentations

Conveners: Sabine Houot, Walter Rossi Cervi

Carbon sequestration with biochar as soil amendment
Gerhard Soja

Animal manure digestate and its effect on greenhouse emissions and soil microbial biomass
Modupe Doyeni

Anaerobic co-digestion with biochars – A way to improve carbon sequestration in soils?
Elina Tampio

Biochar and digestate production, regulation, and value chain: the Italian case study
Maria Valentina Lasorella

A stocktaking of long-term field experiments in Europe dealing with the application of external organic matter
Hélène van der Smissen

Bio-economy and Circular Agriculture for Soil Health (BioCASH): modelling soil health in multiple scales and connecting disciplines
Walter Rossi Cervi

Combining chemical analysis of organic pollutants and cytotoxicity testing for studying differences between fresh and processed external organic matters
Antonio Martin-Esteban

External organic matters for climate mitigation and soil health (EOM4Soil)
Sabine Houot

B2 Closing carbon and nutrient cycles

Poster Session P1 - Monday 12th June

Poster Presentations

Recycling wastewater products for its use in Mediterranean agriculture: impacts in the soil microbial community and grapefruit physiology
Felipe Bastida

Effects of organic and synthetic fertilizers on soil chemical composition
Ausra Baksinskaite

Soil restoration with organic amendments: microbial and metagenomics insights into the nutrient cycles
Felipe Bastida

Anaerobic digestion of cow manure – long-term implications for soil fertility and crop yield
Tatiana F. Rittl

Pig manure digestate-derived biochar an organic soil amendment tool to decrease ammonia volatilisation
Karolina Barčauskaitė

Nitrous oxide emissions and ammonia volatilisation in a field experiment with different organic and inorganic fertilisers with biochar combinations
Ferdinand Hartmann

The quality of various origins of external organic matter in Lithuania
Donata Drapanauskaite

B3 Indicators for soil ecosystem services

Oral Presentations

Conveners: Klaus Jarosch, Isabelle Cousin, Stefano Mocali

Soil Biological Quality index effectiveness at different reference scale
Romina Lorenzetti

How to use soil threats bundles to assess the effects of climate change and land use changes at EU scale
João Coblinski

Microbial diversity promotes primary productivity across contrasting land uses in European soils
Ferran Romero

What is a "good" soil organic carbon content?
Christopher Poeplau

Assessment of management practices to prevent soil degradation threats on Lithuanian acid soils
Ieva Mockevičienė

Assessing on-farm soil health indicators under Norwegian conditions
Tatiana F. Rittl

B3 Indicators for soil ecosystem services

Poster Session P2 - Tuesday 13th June

Poster Presentations

Soil threats and soil ecosystem services indicators for policy implementation: a proposed review
Andrea Martelli

Carbon sequestration and climate change mitigation in soils – definitions and their implications
Felix Seidel

Various approaches to agricultural soil data collecting and their use as indicators for soil-based ecosystem services in the Czech Republic
Lenka Pavlů

Statistical assessment of the usability of SOC sequestration indicators
Sylwia Pindral

Questioning about the harmonization of soil health indicators between contiguous regional territories: the case of marginal soils in Tuscan-Emilian Apennines pedo-landscapes
Costanza Calzolari

Soil health assessment is more than designing frameworks and defining indicators: the complicated landscape of soil health assessments in the Netherlands
Janjo de Haan

Towards a harmonized system for the monitoring of soil microbial biodiversity
Stefano Mocali

Assessment of temporal dynamics of soil microbial diversity on archived soils: preliminary results of MINOTAUR project
Sara Del Duca / Stefano Mocali

Variation of dsDNA and enzyme activities in fresh and air-dried samples with different storage time, collected in three different soil types
Gilberto Bragato

What can accelerate hemp residues mineralization?
Urtė Stulpinaitė

The abstract relates to the experimental work we are conducting within the project MINOTAUR
Christina Aponte

Agro-ecological strategies for promoting climate change mitigation and adaptation by enhancing soil ecosystem services and sustainable crop production (ARTEMIS)
Klaus Jarosch

C1 Carbon sequestration, roots and amendments

Oral Presentations

Conveners: Rebecca Hood-Nowotny, Isabelle Bertrand, Anna Wawra

MIXROOT-C and MaxRoot-C Optimizing roots for sustainable crop production in Europe
Rebecca Hood-Nowotny

Environmental conditions are ten times more important than wheat variety for arbuscular mycorrhizal fungi
Agnė Veršulienė

Soil intrinsic limits for carbon sequestration due to C saturation
Axel Don

The root shoot database. What can the available literature tell us about the effect of management on the root shoot ratio (RSR)
Simon Weldon

Root system architecture traits of winter wheat in a genotype x environment network across a European pedoclimatic gradient
Fabien Durand-Maniclas

Increasing root-derived soil carbon input to agricultural soils by genotype selection
Henrike Heinemann

Poster Presentations

Poster Session P2 - Tuesday 13th June

Carbon sequestration potential of legume-cereal intercropping
Juliana Trindade Martins

Main crop effect on biodiversity expression in spontaneous flora and C input from cover crop mixtures
Nadja Fuglkjær Bloch

In situ 13C isotope labeling of winter wheat to determine net belowground carbon inputs
Celia Fernández-Balado

C2 Soil biodiversity and ecosystem services

Oral Presentations

Conveners: Alessandra Trinchera, Sébastien Fontaine

Sculpting the soil microbiota: role of soil management and plant-diversity based farming practices
Alessandra Trinchera

Designing sustainable agrosystems by copying the biogeochemical organizations of natural ecosystems
Sébastien Fontaine

Will cover crops alter microbial carbon use efficiency? - First results from the Wageningen Clever Cover Cropping site
Julia Schroeder

Modelling microbial and plant diversity in multi-species agroecosystems: the DIMIVEA project
Gianni Bellocchi

Influence of saltwater irrigation on crops and soil microorganisms under a salinity gradient
Anais Chanson

A guideline for appropriate estimates of carbon use efficiency with the 18O method
Antonio Rodriguez-Hernandez

Early detection of microbial carbon stabilization by biomarker-SIP
Jim Rasmussen

Validation of microbial community-level physiological profiles (CLPP) analysis in LAMMC and MBG Santiago-CSIC
Skaidrė Supronienė

Variation in soil bacterial community structure under different tillage intensity
Monika Vilkienė

Rehabilitation of soils containing high salt levels with beneficial fungi
Akın Ün

On-farm regeneration of microbiology for healthy agricultural soil
Katharina Keiblinger

C2 Soil biodiversity and ecosystem services

Poster Session P2 - Tuesday 13th June

Poster Presentations

Influence of agricultural management on soil biodiversity of Mediterranean soils SOILBIO
Margarita Ros

Soil proteins as biochemical indicators of the plant-soil-microorganism system as a whole
Fabienne Delporte

Linking soil microbial carbon sequestration to cover crop diversification in agricultural soil systems across Europe
Alexander Koenig

Soil biodiversity and ecosystem services
Christoph Rosinger

Influence of long-term application of different tillage system with cover crop and glyphosate management practices on greenhouse gas emissions
Shamshitov Arman

Benchmarking soil biodiversity through eDNA metabarcoding
Sam Lambrechts

Wheat roots can modulate soil microbiome to increase sustainability and efficiency of nitrogen fertilizer inputs
Maria C Hernandez-Soriano

C3 Sustainable soil management

Conveners: Lisbeth Johannsen, Lorena Chagas Torres, Loraine ten Damme

Oral Presentations

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

Mapping and alleviating soil compaction in a climate change context (SoilCompaC)
Lorena Chagas Torres

Soil management to mitigate climate change-related precipitation eXtremes (SoilX)
Annelie Holzkämper

Effect of soil tillage, cover crop and wheel load on track depth, soil penetration resistance and maize yield in the Pannonian basin in 2022
Gerhard Moitzi

Policies for sustainable soil management – ambitions, knowledge gaps and incoherencies
Martin Hvarregaaard Thorsøe

The importance of data resolution in regional scale modelling for erosion prediction and soil indicators
Seth Callewaert

Assessment of potential compaction risk of arable soils in Switzerland
Lena Weiss

Subsoiling and bio-subsoilers to alleviate subsoil compaction in three maize-based cropping systems on a sandy loam soil
Tommy D'Hose

Poster Session P2 - Tuesday 13th June

Poster Presentations

Soil physical parameters and winter wheat productivity on headlands: field scale analyses in Lithuania
Danute Karcauskiene

The effect of different cover crops on soil properties, soil compaction and yields of winter wheat
Miroslav Fér

Long-term effects of soil compaction on soil carbon stocks and nitrous oxide emissions
Alejandro Romero-Ruiz

Agroecological transition for sustainable agriculture and safe food production
Akın Ün

Towards a soil quality field test kit guide of soil indicators for end-land users: a literature approach
Jerzy Grabiński

C4 WP6 Scientific research outcomes towards the production and sharing of standardised and harmonised EU-soil data

Oral Presentations

Comparison of LUCAS and national Soil Information Monitoring System (SIMS) datasets – Exploring the technical possibilities to support the development of an EU harmonized monitoring system
Claire Froger

A review of existing soil monitoring systems to pave the way for the EU Soil Observatory
Antonio Bispo

Collecting, harmonizing and compiling data on soil biodiversity, from European agricultural plots
Antonio Bispo

Enabling Soil data exchange and INSPIRE data sharing in Flanders: Database underground Flanders (Regional Soil Information System)
Lutz Dries

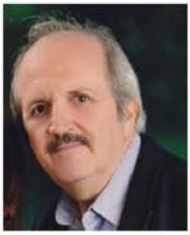
The regional soil organic carbon monitoring network in Flanders (Belgium)
Katrien Oorts

SPEAKER PROFILES

Kristīne Sirmā
Head of Sustainable Agriculture
Development Division
Ministry of Agriculture, Republic of Latvia

She graduated from Latvia University of Life Science and Technologies, Department of Veterinary medicine and University of Latvia Department of Chemistry and Department of Life Science.

For the last 10 years her division has developed and promoted the concept of bioeconomy within the Ministry and among different other ministries and stakeholders, as well to raise awareness and knowledge about EU climate and energy policies and sustainable agriculture production among policy makers and farmer organizations.



Pandi Zdruli
EU Soil Mission Board Representative

Prof. Dr. Pandi Zdruli is Senior Research Scientist with the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) Mediterranean Agronomic Institute of Bari in Italy since 1999 where he teaches soil science and natural resources management.

Prior to joining the Bari Institute, he was Visiting Scientist (for two years) with the European Commission's Joint Research Centre at Ispra, Italy and Senior Fulbright Research Scholar (for five years) at the USDA – Natural Resources Conservation Service in Washington, D.C.

SPEAKER PROFILES

Tim Searchinger
Center for Policy Research on
Energy and the Environment

Tim is a Senior Research Scholar at Princeton University's School for Public and International Affairs. He is also a Senior Fellow and Technical Director for Agriculture, Forestry and Ecosystems at the World Resources Institute.

Searchinger's work today combines ecology, agronomy and economics to analyze the challenge of how to feed a growing world population while reducing deforestation and greenhouse gas emissions from agriculture.

David Makowski
INRAE

David Makowski is senior researcher at INRAe / University Paris-Saclay, in France. His main interests are in statistical/machine learning modelling applied to agroecology, climate change, and food safety.

He manages scientific projects, supervises students, and supports research groups in analyzing complex datasets using statistical and machine learning methods.

LATVIA'S HISTORY

Latvia was originally settled by the ancient people known as Balts. In the 9th century, the Balts came under the over lordship of the Varangians, or Vikings, however, more lasting dominance was established over them by their German-speaking neighbours to the west, who Christianized Latvia in the 12th and 13th centuries. The Knights of the Sword, who merged with the German Knights of the Teutonic Order, conquered all of Latvia and German lordship continued for three centuries, with a German landowning class ruling over an enserfed Latvian peasantry.

From the mid-16th to the early 18th century, Latvia was partitioned between Poland and Sweden, but by the end of the 18th century, the whole of Latvia had been annexed by expansionist Russia. German landowners managed to retain their influence in Latvia, but indigenous Latvian nationalism grew rapidly in the early 20th century. Following the Russian Revolution of 1917, Latvia declared its independence on November 18, 1918, and, after a confusing period of fighting, the new nation was recognized by Soviet Russia and Germany in 1920.

As Latvians had no medieval states, they also lack a historic coat of arms. A new one was thus devised soon after independence, following the European heraldic tradition. The coat of arms united many earlier patriotic symbols that are also still used on their own sometimes.

LATVIA'S HISTORY

In 1939 Latvia was forced to grant military bases on its soil to the Soviet Union, and in 1940 the Soviet Red Army moved into Latvia, which was soon incorporated into the Soviet Union. Nazi Germany held Latvia from 1941 to 1944 when it was retaken by the Red Army. Latvia's farms were forcibly collectivized in 1949, and its flourishing economy was integrated into that of the Soviet Union. Latvia remained one of the most prosperous and highly industrialized parts of the Soviet Union, however, its people retained strong memories of their brief 20-year period of independence. With the liberalization of the Soviet regime undertaken by Mikhail Gorbachev in the late 1980s, Latvians began seeking freedom. Latvia declared the restoration of its independence in May 1990 and attained full independence from the Soviet Union on August 21, 1991.

The Latvian flag is the best-known symbol of Latvia. It is considered one of the oldest flags in the world, as it has been described as early as 1271 in Livonian Chronicle as a battle flag used by local tribes.

RIGA'S HISTORY

Riga City's history is more than eight hundred years long, and it has an abundance of dramatic events stored in countless volumes of works and monuments, legends, songs, memoirs and tales. The archaeological discoveries in the territory of Riga testify that a settlement existed there already in the 12th century. This place was convenient for a harbour because settlements of local tribes – the Cours and the Livonians were formed in its vicinity. Already in 1202, the first colonists - German landowners came here. Little by little Riga became the base of aggression against the local Baltic tribes. In the 13th century trade boomed in Riga, and it became one of the main intermediaries between the West and the East. Even by the end of the 16th century, disagreements about governmental rights did not cease among inhabitants of Riga: –bishops, Knights of the Sword (later - Livonian) and Riga's landowners. Sometimes the disagreements grew into armed conflicts.

The industry rapidly grew in Riga during the second half of the 18th century. German guilds lost their monopoly position in manufacturing and trade. In the 19th century, Riga became one of the main seaports of the Russian Empire and an important railway transport junction. During the second half of the 19th century and the beginning of the 20th century, the area of Riga increased 10 times, in 1913 the number of inhabitants was 80 times higher than at the beginning of the 18th century and it was the second largest city (after St. Petersburg) in the western part of Russia.

RIGA'S HISTORY

Riga endured severe suffering during the end of World War I, experiencing three different political regime changes. After August of 1920, the devastated Riga became the capital of the equally devastated Republic of Latvia. During 1920-1930 Riga developed into the centre of trade, light and food industries, as well as an important cultural and educational centre. During World War II the Old Town of Riga suffered hard, and the port and railway junctions were destroyed. After the war, Riga became one of the biggest centres of the western part of the Soviet Union, where according to the industrialization plans both light industry and significant enterprises of the military-industrial complex were developed. Riga became also the centre of the Baltic military district.

Restoring Latvia's sovereignty, Riga became the centre of the Awakening Movement. In January 1991, the population of Latvia gathered on barricades in Riga to face the possible attack from the USSR military units.

The history of Riga over more than 800 years testifies that the city has vast experience being proud and rich and knowing how to rise once again after war, starvation and disaster. And how to be proud again.

City hall square of Riga Old Town with St. Peter church rising above it. ©Augustinas Žemaitis.

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.

THE EJP SOIL CONSORTIUM

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