



# Presenting and communicating EJP SOIL highlights at national level

Sophie Zechmeister-Boltenstern, Line Carlenius Berggreen,  
Katharina Meurer, Rajasekaran Murugan  
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**EJP SOIL**  
European Joint Programme

EJP SOIL has received funding from the European Union's Horizon 2020 research and innovation programme: Grant agreement No 862695



# Presenting and communicating EJP SOIL highlights at national level

## Agenda

Here we want to discuss with you different ways of communicating EJPSOIL results/highlights to the national stakeholders.

We will give you some examples from Austria and the Netherlands

We want to try out some new way of communication of soil highlights per “knowledge snacks” and are looking forward to get your feedback on it.



# The Story on how Austrian National Stakeholder Meetings developed



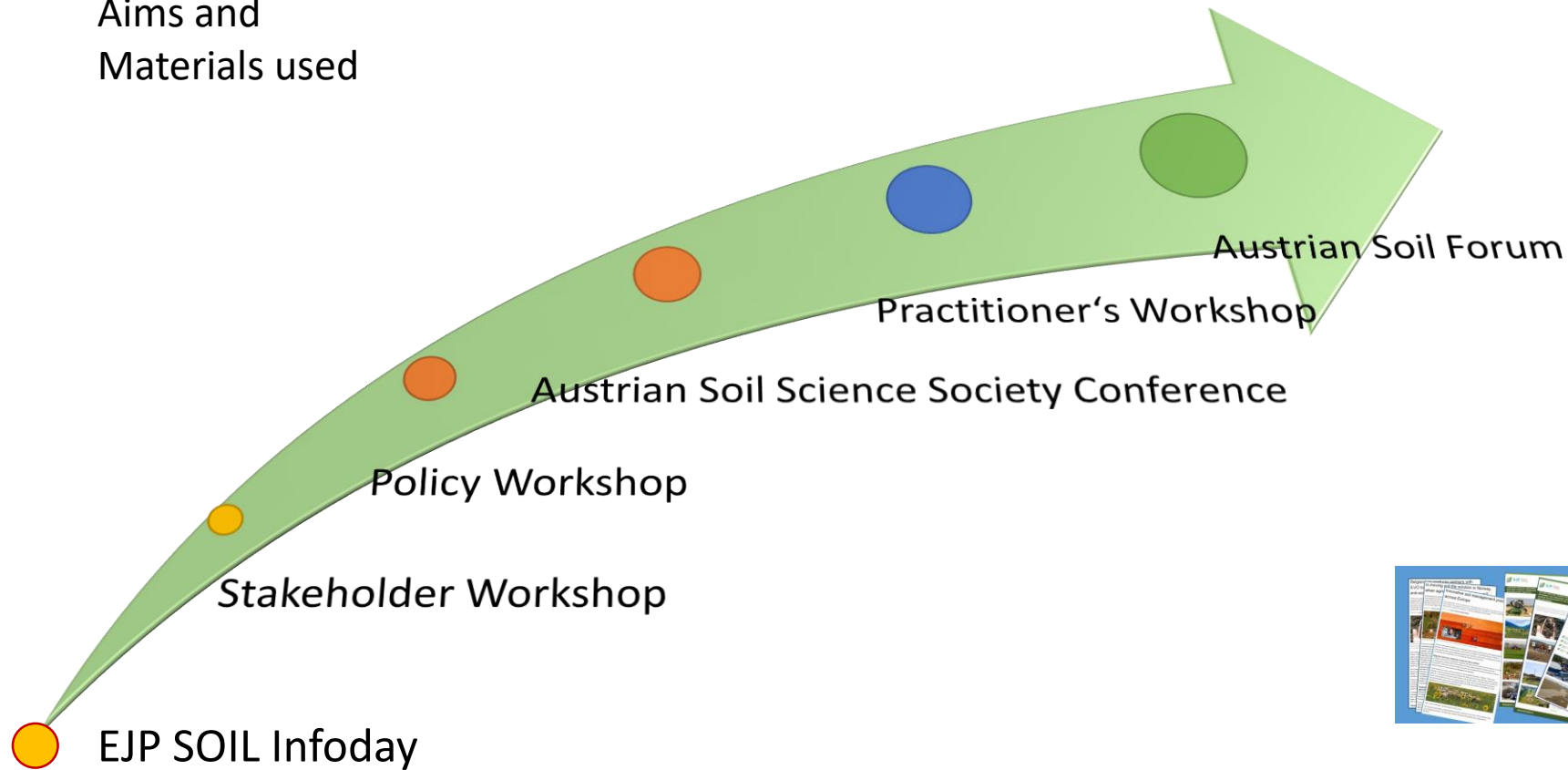
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# Development of Austrian National Communication 2021-2023

Development of  
Aims and  
Materials used



# 1. Soil-Climate-Future Info Day 16 April 21: >100 participants



**Greeting** Magnifizenz Univ.-Prof. DI. Dr. Hubert Hasenauer und Mag. Robert Pichler

**What is EJP SOIL?** Univ.Prof.in Dr.in **Claire Chenu, INRAe** Frankreich

**What topics will be covered?** Dr. Nils Borchard, LUKE, Finnland

**What is happening in Austria?** Dr. Andreas Baumgarten, Prof.in Dr.in Sophie Zechmeister-Boltenstern, DI Dr. Peter Strauss, DI Sigbert Huber, DI Dr. Ernst Leitgeb

**What does the future hold?** Biobauer Alfred Grand, Mission Soil Health and Food

**Agriculture as a climate saviour?** Univ.-Prof.in Dr.in Sophie Zechmeister- Boltenstern

Diskussion mit Hochladen der Ergebnisse

**What do we need for implementation?** Podiumsdiskussion moderiert von DI Dr. Helmut Gaugitsch, Umweltbundesamt

Herr Mag. Robert Pichler BMLRT, Frau DIin Karin Doppelbauer, Frau Ulrike Böker, Herr Ing. Lorenz Mayr, Herr Univ.-Prof. DI Dr. Dr.h.c.mult Martin Gerzabek

*Aim: Raise Attention*

## 2. Agricultural excursion and working session with EJP SOIL National Hub, September 21

24 participants from 5 federal states, 2 ministries

The program included the following:

- Visit to the Phytobac plant of LFS Krems
- Visit to the BAW irrigation optimisation experiment
- **Presentation of the EJP SOIL work programme followed by discussion and drafting of a document as feedback to the programme**
- Presentation of the TUWI project
- Tasting of regional products and wine tasting

*Aim: Get them hooked*



# 3. EU Soil Strategy and Other New Policy Instruments - Expectations and Requirements for Politics and Science in Austria

## EJP SOIL Projects - Policy relevant?

Where can the EJP SOIL projects come in?

e.g. in National CAP measures

Measures on the topics: greening, erosion control, water (preventive groundwater protection), organic farming, fertilization/nutrients/GHGs (restriction of yield-increasing inputs), promotion of biodiversity (UBB - environmentally friendly biodiversity-promoting management), etc.

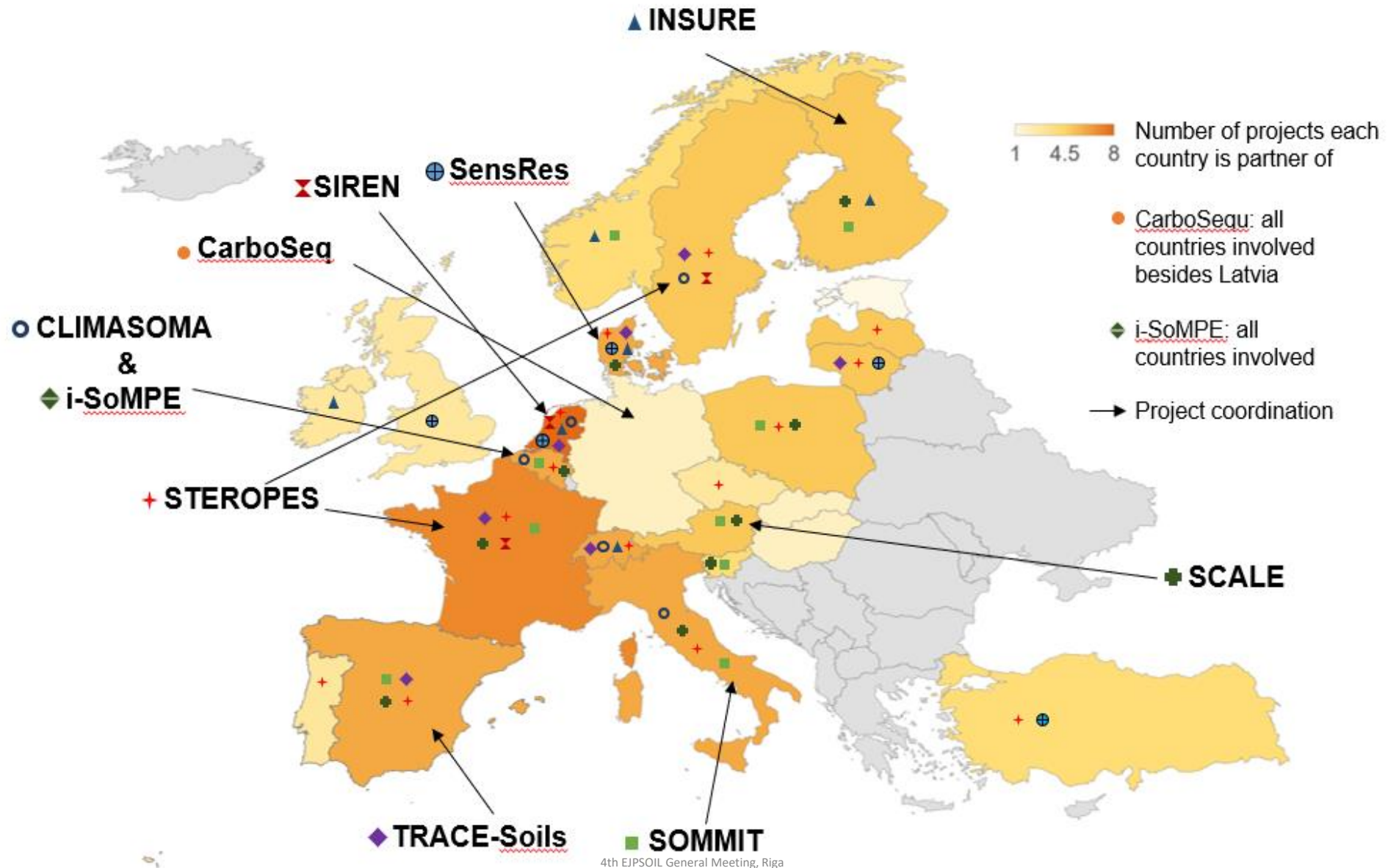
e.g. EU Soil Strategy, National Soil Strategy

Soil Health, Carbon Sequestration, Greenhouse Gas Reduction

*Aim: Create a link*

**EJP SOIL Project Slides: 1 slide per proposal**  
**Working groups on communication**

# Austrian participation in the 1<sup>st</sup> call





Example for project slide

# CARBON SEQ

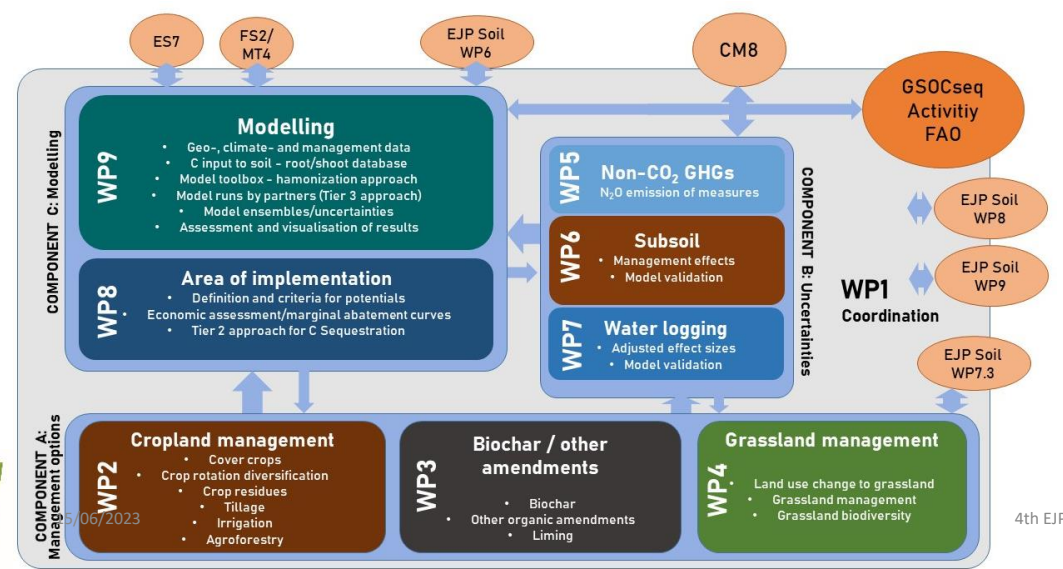
## Estimate the soil carbon sequestration potential of European agricultural soils

Topic CM2, Coordinator Axel Don, Thünen Institut; for AT: Katharina Keiblinger, BOKU; Heide Spiegel, AGES

Quantification of the carbon storage potential of Agr. soils at the regional/national level. Socio-economically viable, feasible and consideration of non-CO<sub>2</sub> GHG emissions.

23 countries, 27 partners

The following agricultural measures/management options are examined for their C-storage potential: e.g. catch crops, improved crop rotations, leaving crop residues in the field, reduced tillage, irrigation, agroforestry, secondary raw material fertilisers, grassland management. The aim is to develop maps after determining the possible areas and SOC increases (model) The project concerns, for example, the ÖPUL measures greening of arable land, mulch/no-till farming. Additional costs for farmers: is the subject of the national Cofund-project CASAS





## 4. Austrian Soil Science Society



76 participants on site  
and 19 online, 37 Posters

Invitation to the Annual Meeting of the Austrian Soil Science Society  
in cooperation with EJP SOIL

Topic: **“Soil Health and Carbon Farming”**

*Aim: Science Network*

**Date: 21<sup>st</sup> September 2022**

Venue: BOKU Schwackhöferhaus, Peter-Jordanstr. 82, 1190 Vienna  
Aula and Seminarräume 6, 8, 9, 10; ONLINE participation is possible for lectures, pls. register\*





## Program

8:30-9:00 Registration and CoVid Test check

9:00-9:15 Welcome and Introduction (Andreas Baumgarten and Sophie Zechmeister-Boltenstern)

9:15-9:45 **Keynote Martin Wiesmeier, LFL Freising: Carbon farming and carbon credits for climate mitigation: opportunities and challenges**

9:45-10:45 **Soil Organic Carbon - trigger presentations** (12 Minutes) chair Evi Oburger:  
Heide Spiegel, AGES: Carbon Sequestration in Austrian Soils – Selected results of the CASAS project

Katharina Keiblinger, BOKU: Soil organic carbon indicators for sustainable and climate change resilient food production systems

Walter Wenzel, BOKU: Soil carbon inventories in Austria

Martin Gerzabek & Franz Zehetner, BOKU: Development of SOC stocks during soil the example of the Galápagos Islands



# Breakout Groups

**Carbon and Climate** - z.B. Heide und Eugenio; Rapporteur Stefan??

- Soil carbon sequestration & Climate change mitigation (CarboSeq, Road4Schemes, SOMMIT; MaxRoot - C, MixRoot - C, AgroEcoSeq-C, EnergyLink)

*Also ProbeField, SCALE, i-SOMPE, SERENA, SoilCompaC, EOM4SOIL*

**Farming for Soil Health** – z.B. Taru and Elmar, Rapporteur Cecilie??

- Sustainable soil management & agricultural production (SCALE, SoilCompaC)
- Sustainable environment: soil health, biodiversity & ecosystem services (i-SomPE, SERENA)
- Region specific fertilization (EOM4SOIL)

*Also MINOTAUR, Maxroot – C, Mixroot – C, CarboSeq, AgroEcoSeq-C*

**Soil Monitoring** – z.B. Andreas B. and Sigi, Rapporteur Raja/Hans Zaller??

- Soil data & monitoring, mapping and modelling (Workpackage 6, ProbeField, MINOTAUR)

*Also SERENA, SCALE*

10:45-12:15 **Poster Presentations** with coffee plus **networking at the posters**

Online voting – best poster award:

Either use the **link:** <https://tinyurl.com/oebg22> or log in via: <https://www.slido.com> and **#oebg22** or use the **QR code** on the right.

*12:15-13:30 Lunch Buffet*

13:30-15:00 (*change at 14:15*) **Working groups** – on the topics of

- (1) Carbon and Climate**
- (2) Farming for Soil Health**
- (3) Soil Monitoring**
- (4) Forest Soil Management and Agroforestry**

*15:00-15:30 Coffee break*

15:30 – 17:00 Reports from Working Groups, **Synthesis and Wrap Up, Best Poster Award.**  
(Chair Martin Gerzabek)

*17:00 Cold buffet and beverages*

17:30 **SOIL QUIZ** in teams of 5 people – Prizes to be won!

18:00 World premiere: **Humusfilm** (A. Baumgarten)

Organization: Sophie Zechmeister-Boltenstern, Andreas Baumgarten, Martin Gerzabek, Evi Oburger, Michael Englisch, Karin Slama, Eva Ecker, Rajasekaran Murugan, Ulises Ramon Esparza, Peter Strauss, Sigbert Huber, Sigrid Schwarz, Alfred Pehamberger.

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QR code: online voting best posters



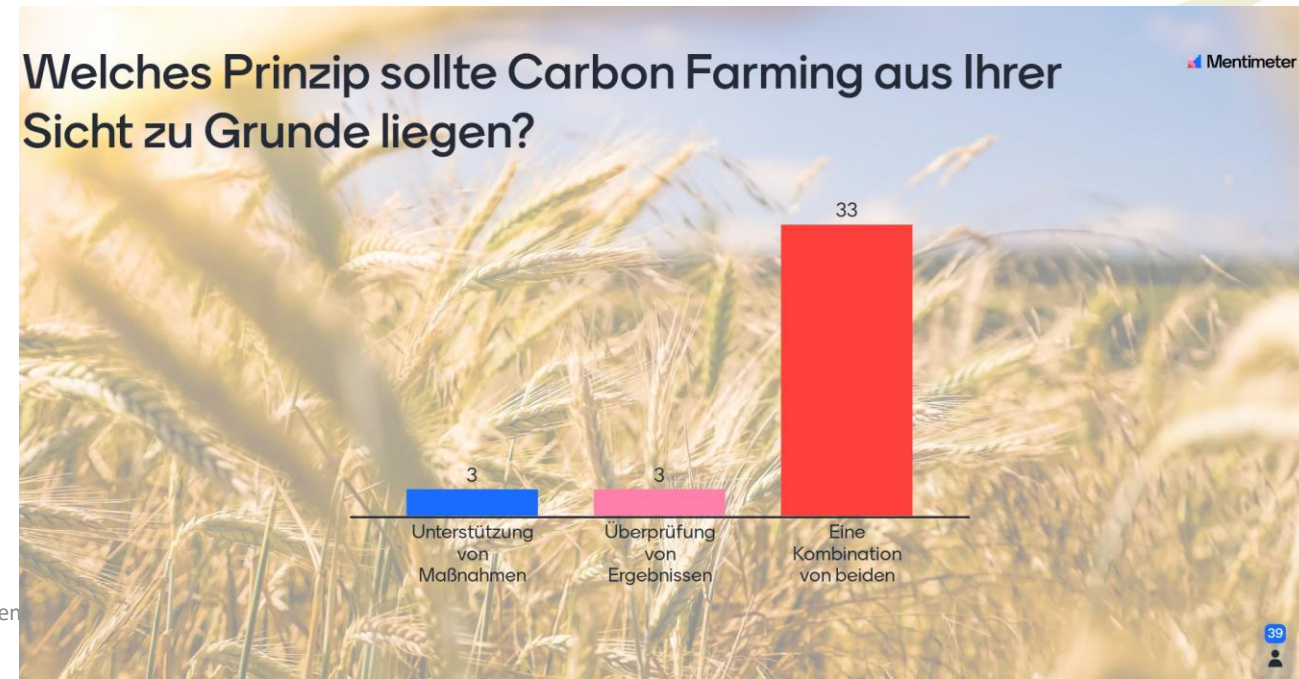
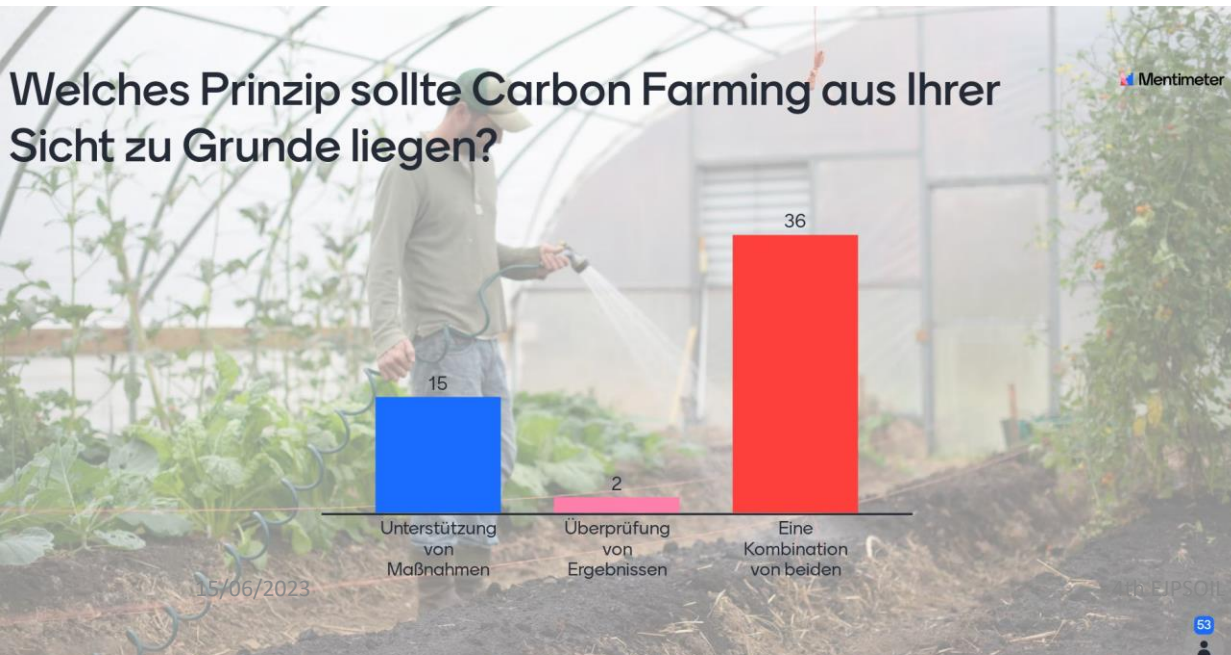
# 5. Practitioner Event „Humus under Discussion“

AGES, January 2023 hybrid meeting, more than 100 participants

*Aim: Get feedback*

E.G. Question: “In your opinion, what principle should carbon farming be based on?”

Practitioners have a different view than scientists: E.g. they want Carbon Farming to rely on management incentives rather than on MRV







The organizers:  
Anna Wawra,  
Taru Sanden,  
Adelheid Spiegel,  
Andreas Baumgarten;  
AGES





## 6. Austrian Soil Forum

# FRÜHJAHRSTREFFEN 2023 BODENFORUM ÖSTERREICH

„Science creates Practice“

**EJP-SOIL – Wissen Schaf(ft) Praxis:**

**klima-smartes, nachhaltiges Bodenmanagement in Österreich**

**Datum:** Dienstag, 9. Mai 2023 / 9:30 – 17:00  
Mittwoch, 10. Mai 2023 / 9:00 – 12:30

**Ort:** Wien  
Bundeforschungszentrum für Wald (BFW)  
Seckendorff-Gudent-Weg 8, A-1131 Wien

**Thema:** EJP SOIL - Wissen Schaf(ft) Praxis: klima-smartes, nachhaltiges  
Bodenmanagement in Österreich

Information | Kommunikation | Diskussion



4th EJP SOIL General Meeting, Riga

**Dienstag, 9. Mai 2023**

**Ganztägig 9:00 – 17:00**

Vorträge und Diskussion

**Mittwoch, 10. Mai 2023**

**Vormittag 9:00 – 12:30**

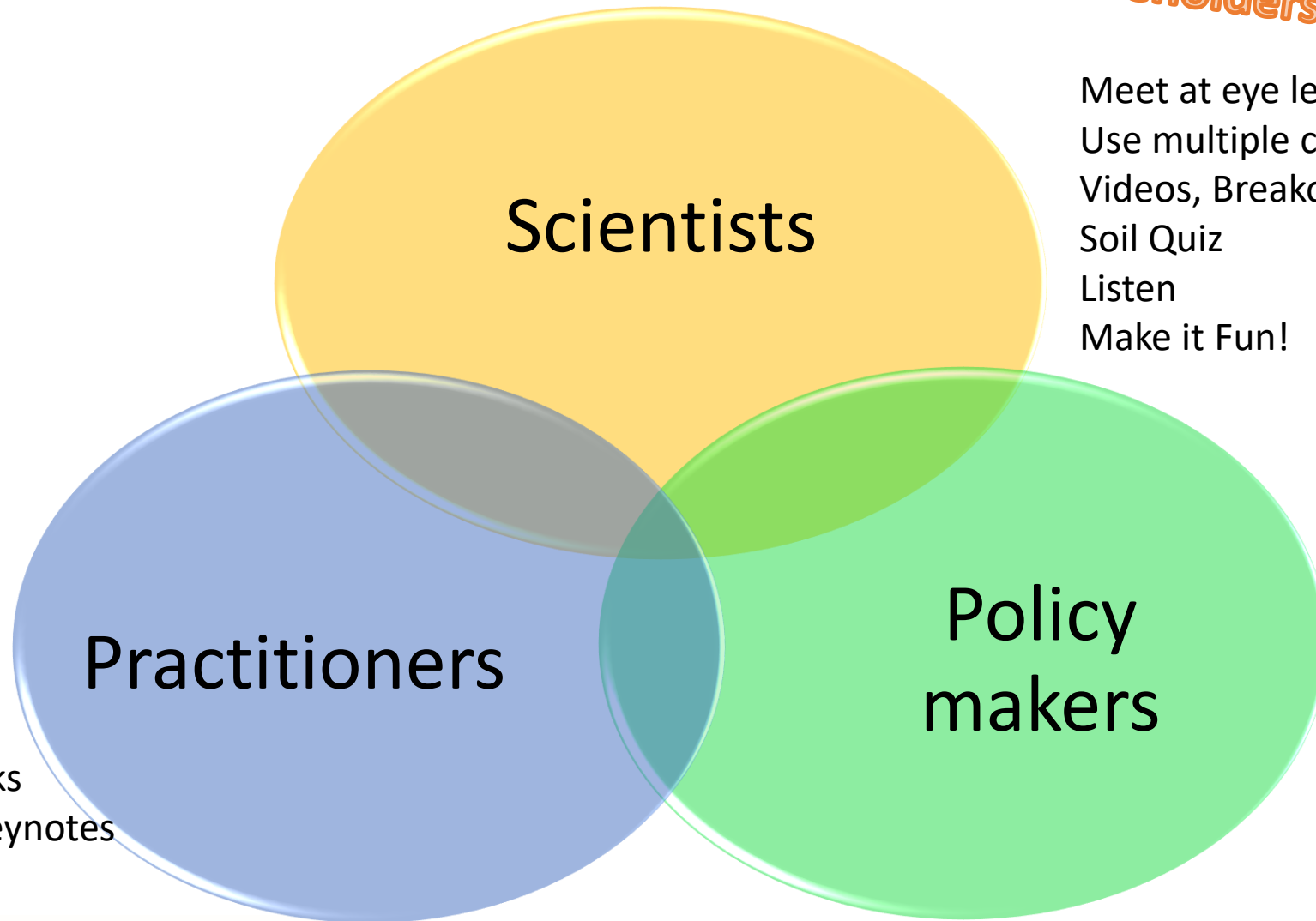
Inforunde des Bodenforums

# Impressions of 2 Day EJP Soil Forum with farm advisors and policy makers May 2023



# Lessons learned:

*Now Austrian Stakeholders are EJP SOIL Fans!*



Meet at eye level  
Use multiple communication tools:  
Videos, Breakout groups, Excursions,  
Soil Quiz  
Listen  
Make it Fun!

Dynamic stakeholders  
groups  
Stable knowledge exchange  
platforms

Use existing networks  
Invite stakeholder keynotes  
Panel Discussions

# A push for co-productive (science-policy) approach: Experiences from the Netherlands

Chantal Hendriks, Anna Besse-Lototskaya, Janjo de Haan & Saskia Visser (Wageningen Research)

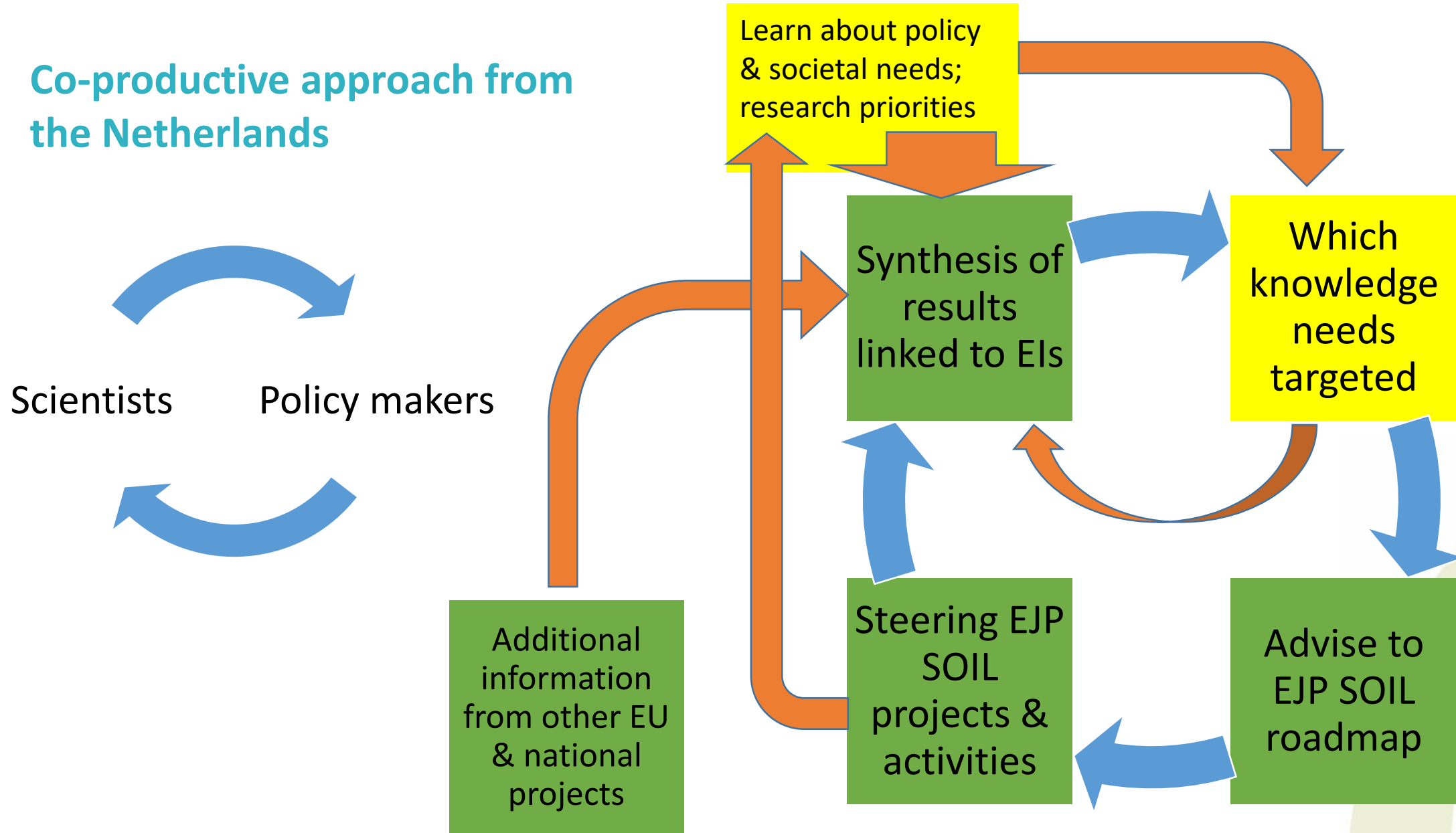


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# Co-productive approach from the Netherlands

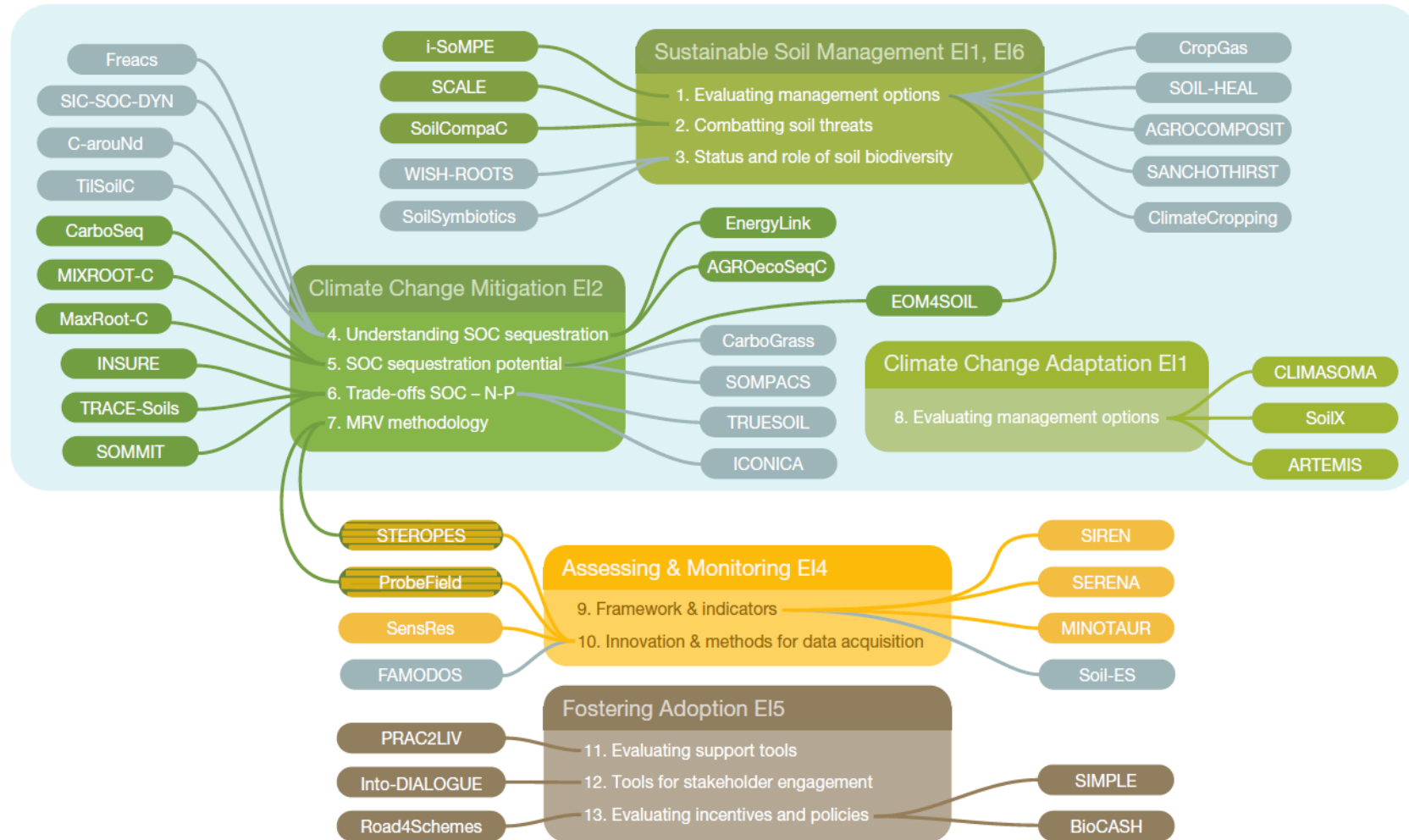


# Co-productive approach from the Netherlands – STEP1 and STEP 2

## Policy agenda

- Biodiversity and nature
- Water
- Climate
- Nature and environment education
- Spatial development
- Regional transition
- Sustainable agro-innovation
- Sustainable enterpreneuring
- (Chemical) minerals and environment
- Economical promising agrosector
- Organic agriculture
- Energy transition
- Plant health
- Food quality
- Food safety
- Animal health
- Spatial planning steered by soil and w

## Outputs of EJP SOIL projects



# Co-productive approach from the Netherlands – STEP3

## E11 soil management

Sustainable agro-innovation  
Organic agriculture  
(Chemical) minerals and environment  
Climate  
Plant health  
Biodiversity and nature

## Knowledge needs

Effect of measures and potential trade-offs to the environment, biodiversity and spatial planning, but also on farmers and policies

## Contribution EJP SOIL

Results on the effect of measures and potential trade-offs.  
Review and maps on measures taken throughout EU  
Overview LTE in Europe.

## EJP SOIL Projects

i-SOMPE  
CarboSeq  
EOM4SOIL  
SoilCompaC  
MINOTAUR

## E12 soil carbon sequestration

Climate  
Regional transition  
Spatial planning steered by soil and water

Effect of (re)wetting peat soil  
Spatial planning of carbon measures  
Aim: 0.5 Mt extra CO<sub>2</sub> seq. In mineral agricultural soils by 2030

Results on the effect of carbon measures and potential trade-offs  
Spatial allocation of measures

Insure  
MixRootC  
EnergyLink  
EOM4SOIL  
AGROECOSeqC  
CarboSeq  
Sommit  
MaxRootC  
TRACE-Soils

## E13 scientific capacities and cooperation

None/all

Strengthen fundamental underpinning  
Advise on how to meet EU goals

## E14 harmonised European soil information

Biodiversity and nature  
Climate  
Spatial development

Which indicators should be measured and how often.  
How these indicators help monitoring the climate and biodiversity goals.

Position of NL compared to other EU countries.  
Develop conceptual frameworks that help assessing the provision of ecosystem services and climate change transition

SIREN  
SERENA  
MINOTAUR  
CLIMASOMA  
SENSRES  
SIMPLE  
BioCash  
Steropes  
ProbField

## E15 uptake of soil management practices

Regional transition  
Sustainable agro-innovation  
Economical promising agro-sector

Value carbon seq. or ecosystem services, e.g., carbon farming  
New revenue models for farmers

Overview of tools and techniques that help adoption of measures.  
Provide insight in methods other EU countries use for the assessment of e.g., C seq. or ecosystem services.

Prac2Liv  
Road4schemes  
i-SOMPE  
Into-DIALOGUE  
BioCASH

## E16 region-specific fertilisation practices

Spatial development  
Regional transition  
Water  
Sustainable agro-innovation  
(Chemical) minerals and environment  
Spatial planning steered by soil and water

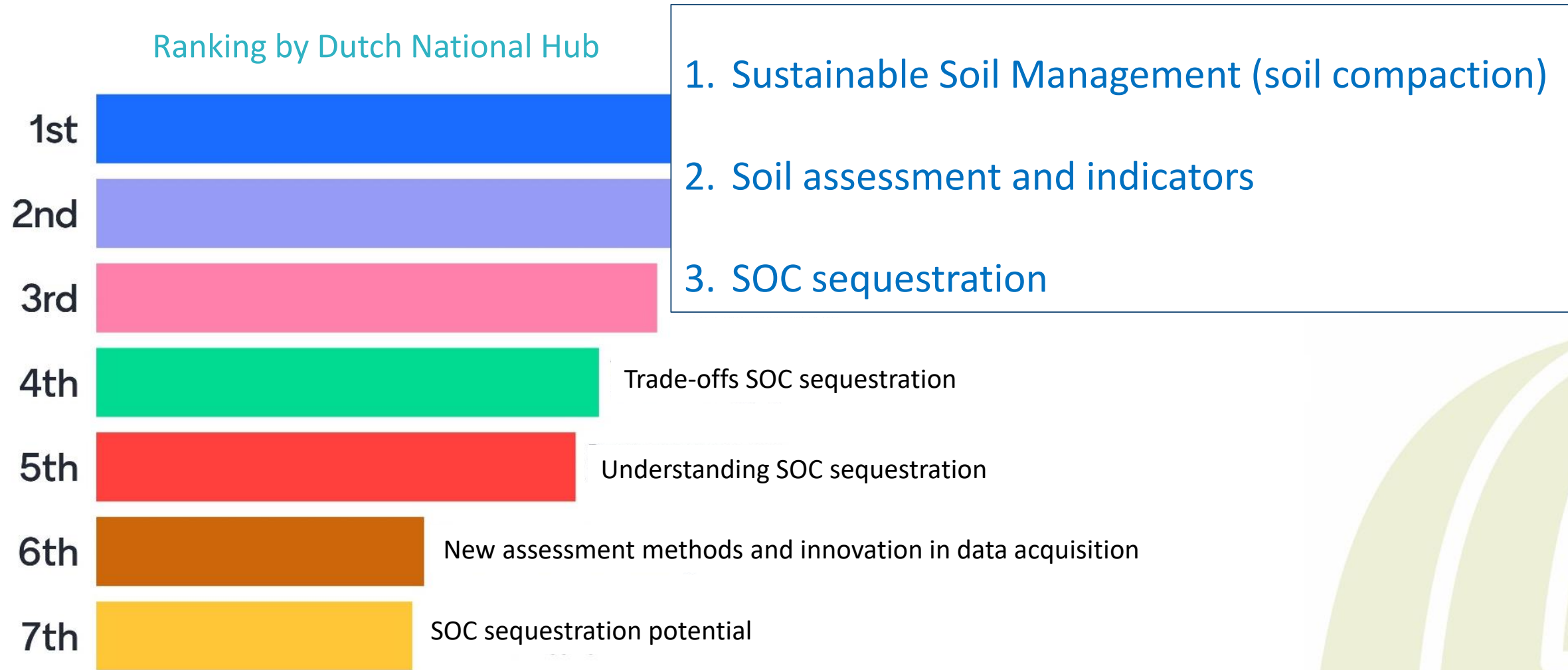
Questions on spatial planning rural area  
Support region specific transition

Overview of best practices regarding fertilization practices.  
Testing innovative fertilization practices  
Overview LTE in Europe  
Spatial allocation of measures

i-SOMPE  
CarboSeq  
CLIMASOMA  
AGROECOSeqC

Dutch programmes Smart Land Use & Better Soil Management

# Co-productive approach from the Netherlands – STEP 4

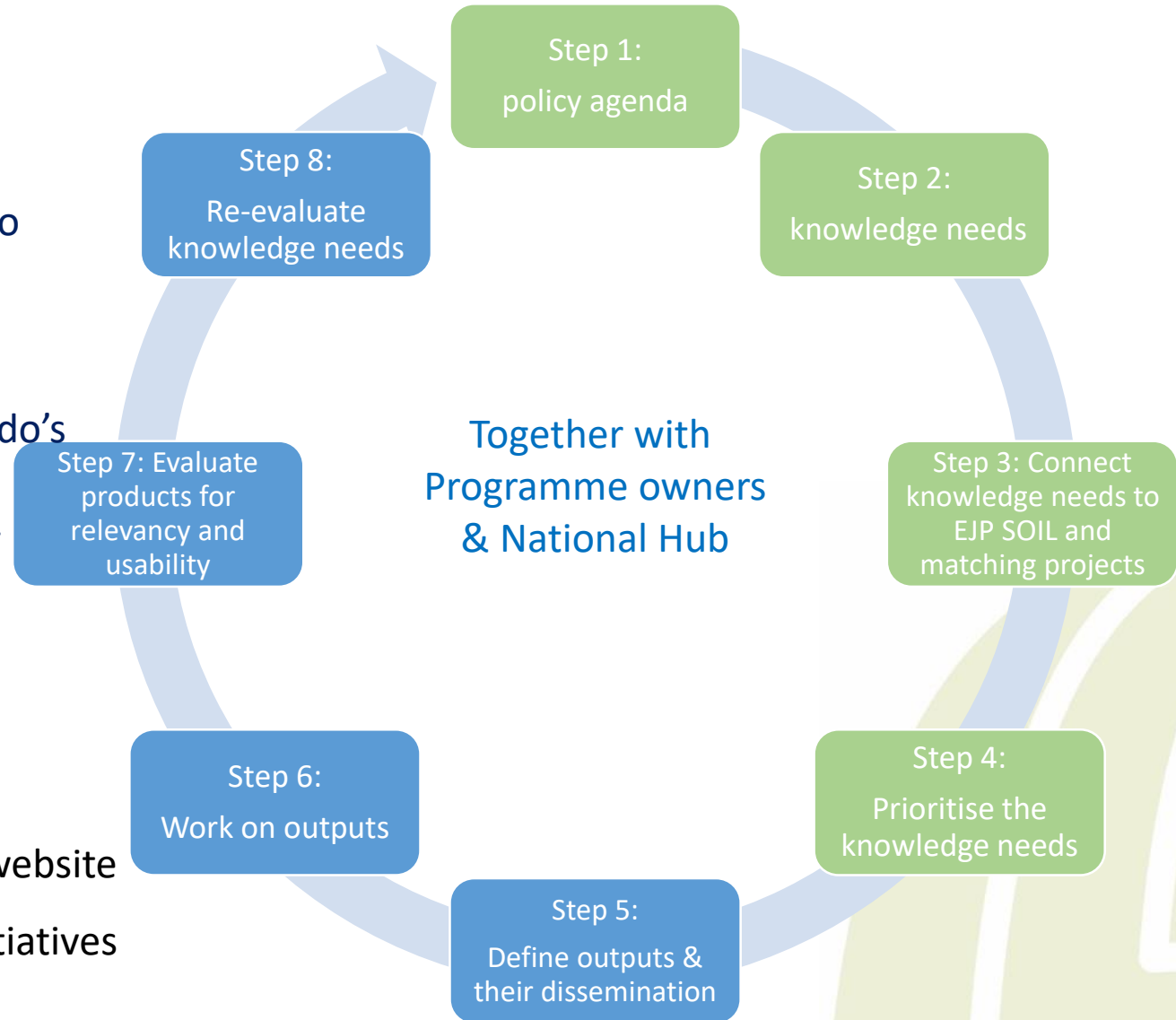




# Co-productive approach from the Netherlands – STEP 5-8

## Strengths of EJPSOIL

1. Transfer knowledge and (inter)national developments to stakeholders
2. Advise policy makers and help fostering sustainable management practice
3. Insights in what we can learn from other EU countries (do's and don'ts)
4. Facilitates to build an enhanced co-productive science-policy arrangements via inter- and transdisciplinary collaboration



- Policy briefs, workshops, articles in professional journals, website
  - Via channels of relevant National projects and initiatives

## Lessons to be learned from the Netherlands:

*Very efficient for EJP SOIL impact Assessment*

# Questions and discussion



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4th EJP SOIL General Meeting, Riga

# ”Knowledge Snacks” from EJP SOIL



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# Selection criteria of program outputs for „knowledge snacks“

Highlights selected from publications by WP7.5 members according to the following criteria:

- Scientific Excellence
- Contribution to EJP SOIL expected impacts
- Novelty
- Interesting to a broader audience
- Scalability

CANVAS program: you can make them yourself



## **EQUILIBRIUM IN SOIL CARBON STORAGE THE PATH IS SHORT**



### **GREEN ENERGY TARGETS**

Cereal straw is an important source for bioenergy production to meet green energy targets and for the maintenance of soil organic carbon.



### **IMPROVING SOC CONTENT IN SOILS**

Addition cover crops may substitute straw removal and serve as a sustainable management option for maintaining or improving SOC content in agricultural soils.



### **LONG-TERM EVALUATION**

Assessment of SOC sequestration potential requires long-term evaluation.

Reliable assessments of SOC sequestration potential require frequent soil sampling until reaching steady-state conditions.



**AUTHORS**  
Jensen et al 2022



### **Cereal straw incorporation and ryegrass cover crops**

Effect of straw addition and rye grass cover crop on SOC sequestration peaks after 10-15 years when a new equilibrium between input and output of C is reached.

# Questions and discussion



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## Which stakeholders require what kind of information?

- **Farmers:** Specific recommendations for their soil, their climate, their cropping system
- **Farm Advisors:** General Soil Knowledge, Soil management options per region, Training
- **Policy Makers/Governmental Officers/Administrators:** Take Away Information relevant for Regulations on Country, Federal Estate and Regional Level
- **General Public/Media:** Storytelling, Solutions for the Future



# Thank you for your inputs!



Foto: Zechmeister-Boltenstern