

Break-out session

'Business models for soil health'

22/11/2023

Press Room – Building D













Our speakers



Johan De Fraye

Global Head of Environment, Health, Safety and Remediation at

Signify

Diego Soto

Soil Science Researcher

University of Vigo



Matteo Vanzini Associate KOIS Invest

WEEK

EUROPEAN

MISSION SOIL

Thomas de Bang

Senior Scientific Manager

Novo Nordisk Foundation



Luis Sánchez

Mission Soil Secretariat

European Commission



Anne-Sophie Leroy

Global Lead Regenerative Agriculture

Earthworm Foundation



Oliver Phipps

Partner and Global Account Director

ERM

#MissionSoilWeek #MissionSoil

#EUMissions



Agenda

- Introduction (10')
- Presentation by the Mission Soil Secretariat (5')
- Round of presentations from panellists (45')
- Panel discussion (30')
- Q&A (15')
- Participatory exercise (10')
 - ✓ What are needs to address the presented challenges on soil health business models?
 - ✓ What do you think the Mission Soil can / should do to promote and support new business models for soil health?

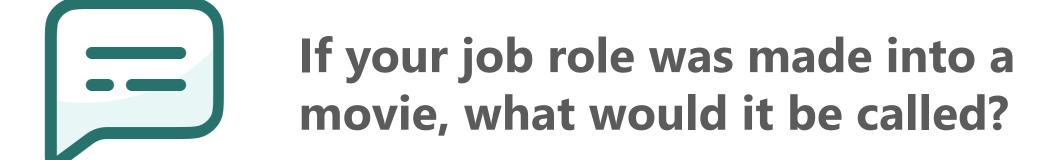
#MissionSoilWeek #MissionSoil

• Conclusions and closing (5')

EUROPEAN MISSION SOIL WEEK

#EUMissions





(i) Start presenting to display the poll results on this slide.



Business models for soil health

The business dimension in the Mission Soil Luis Sánchez Álvarez **Mission Soil Secretariat**

#MissionSoilWeek #MissionSoil #EUMissions











Date: 22/11/2023



Business models in the Mission Implementation Plan

Starting point: business as cross-cutting dimension of the Mission

New (policy) incentives and **business models are needed to reward** soil beneficial practices by actors across value chains EUROPEAN MISSION SOIL WEEK



Analyse relation between current business models and soil degradation Assess existing models and incentives around soil health and ecosystem services

Co-development and implement business cases

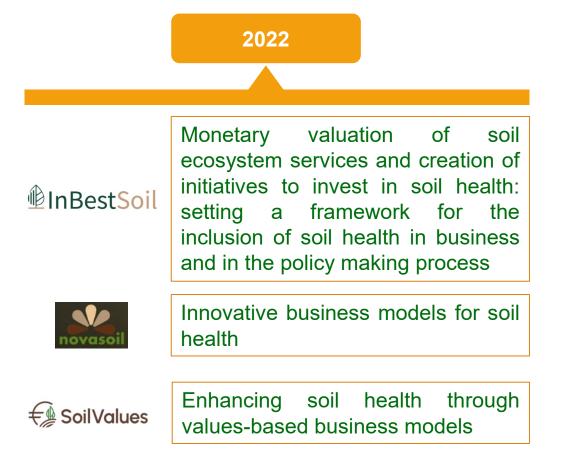
2023 Missions' revision

- □ Missions **primarily funded by** Horizon Europe and other **public sources**
- To achieve deployment and replication of solutions at scale significant investments from the private sector and philanthropy are needed
- The level of investment and involvement of these actors should be boosted



Business models in the Mission implementation

Projects on "Incentives and business models for soil health"



EUROPEAN MISSION SOIL WEEK

Expected outcomes

- Awareness about the value of investing in soil health
- Increased opportunities for investments in soil health across value chains (EU Taxonomy Regulation and the Sustainable Finance Disclosure Regulation)
- Developing and **diversifying income** for land managers
- New value chains and products allowing consumers to make more informed decisions



Business models in the Mission Work Programmes

EUROPEAN MISSION SOIL WEEK

Study Investment needs assessment in the context of the Mission Soil



Objectives:

- □ identify key market players (supply and demand)
- □ Identify pipeline of potential investment opportunities
- □ identify barriers and opportunities to invest / seek finance
- **quantify the investment needs**
- recommending financial & non-financial instruments to address the identified investment needs



Other relevant initiatives

- Living labs expected to support co-creation of solutions considering cultural-socio-economic contexts.
- Network of companies and businesses (business roundtable) developing strategies for valorising soils in their production, supply chains, and consumer relations.
- Finance assistance and advice facility for SMEs and impact driven "soil investors".
- <u>Guidance on EU funding opportunities</u> for healthy soils accompanying the proposal for a Directive on Soil Monitoring and Resilience (Soil Monitoring Law)
 - InvestEU key policy areas include: Water resources and pollution prevention control; Protection and restoration of biodiversity and ecosystems, Sustainable forests and agricultural practices, Transition to the circular economy

#MissionSoilWeek

EUROPEAN MISSION SOIL WEEK

#EUMissions

EN



Thank you!

Email: luis.sanchez-alvarez@ec.europa.eu

Website: mission-soil-platform.ec.europa.eu

















Business models for soil health

Conceptual framework: InBestSoil approach

Diego Soto Gómez

Environmental Agrobiology Group, University of Vigo



#MissionSoilWeek #MissionSoil #EUMissions











Date: 22/11/2023



Conceptual Framework: HORIZON-MISS-2021-SOIL-02-05 - Incentives and business models for soil health

Promote soil health and develop sustainable business models that encourage investment in soil health

- 1. Awareness Raising. Land managers, companies (including financial and insurance sector), local authorities and civil society.
- 2. Cooperation. Projects are expected to foster collaboration and establish new partnerships between different sectors to significantly improve soil health and support its diverse functions.
- 3. More investment opportunities and development of new value chains and products based on sustainable soil practices.
- 4. Income innovation, i.e., looking for opportunities to diversify land managers' income through sustainable practices.

EUROPEAN MISSION SOIL WEEK





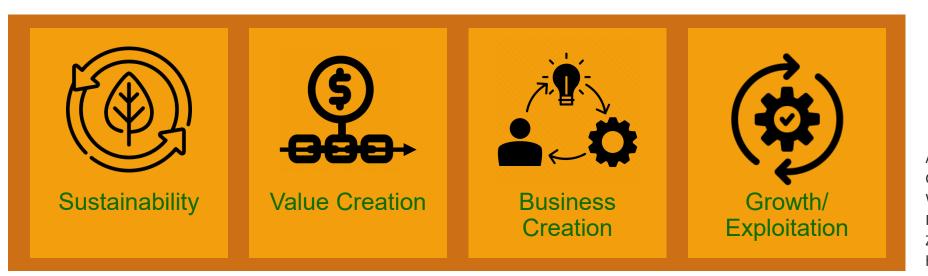
Conceptual Framework: 100 Living labs and Lighthouses for 2030

Living Labs Context: Long-term set-up (Implementation Plan)



Governance

Business Model



Adapted from Couture, I., Cavallo, D., Grbović, V., & Stojačić, I. (2023, June 29). Webinar: Governance and Business Models for setting up a Living Lab. Zenodo. https://doi.org/10.5281/zenodo.8096848

#MissionSoilWeek #M

#MissionSoil #EUMissions

EUROPEAN MISSION SOIL WEEK



InBestSoil Approach: Hypothesis

Translate the ecosystem services provided by healthy soils, as well as interventions to restore degraded soils, into monetary values.



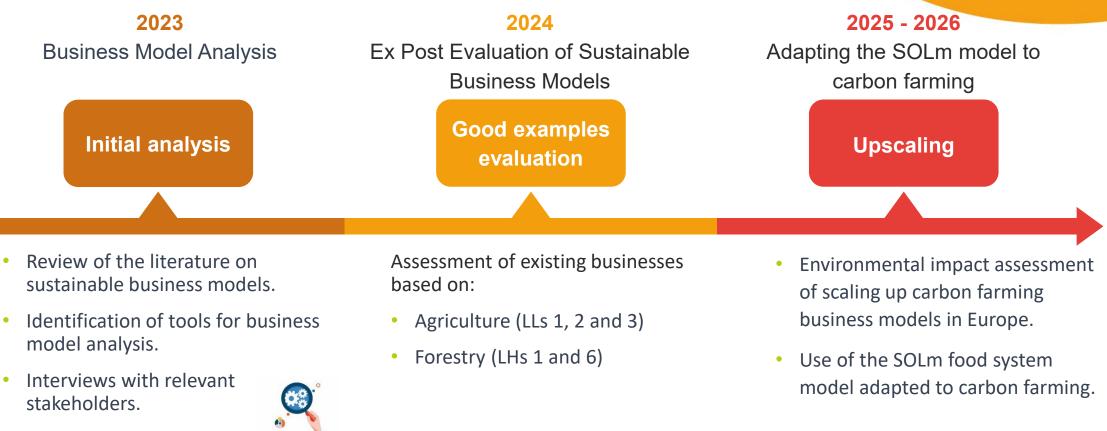
Design business models and incentives taking advantage of this economic valuation.



InBestSoil: Business Analysis and Upscaling



EUROPEAN MISSION SOIL WEEK





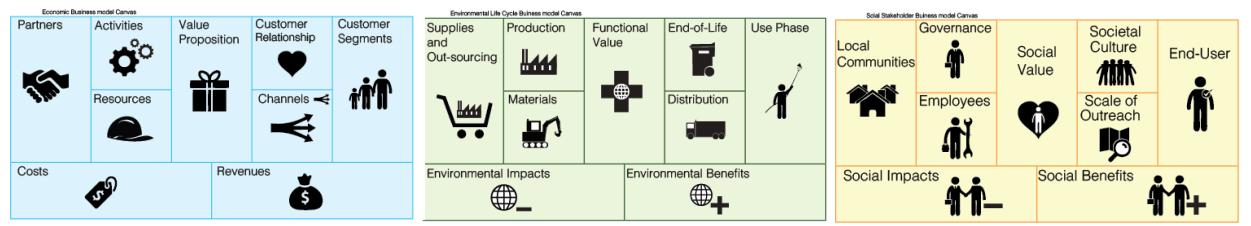
InBestSoil: Business Creation



EUROPEAN MISSION SOIL WEEK

Development of research integrated protocols on how to co-design new sustainable business models for each LH and LL: **Triple Layered Business Model Canvas** (TLBMC).

 context description; identification of stakeholders; potential for environmental, social and economic benefit from changing soil management; identification of business opportunity scenarios with appropriate tools for designing new business models.



Joyce, A.; Paquin, R. & Pigneur, Y. (2015): The triple layered business model canvas: a tool to design more sustainable business models, ARTEM Organizational Creativity International Conference, 26-27 March 2015, Nancy, France.



InBestSoil: Collaborative Platform

- Activities common to many projects. To facilitate collaboration: InBestSoil Platform (<u>https://inbestsoil.app/social</u>)
- More than 100 users belonging to European projects.
- About 10 Working Groups: each with its own calendar, repository, individual channels, and possibility to include new features.
- WG: Soil health business models.



Soil health business models

Fostering the sustainable growth of businesses in carbon farming, regenerative agriculture and, in general, techniques that enhance the capacity of soil to provide ecosystem services.

Methodology Soil health Soil improvement Participatory research Businesses/Investors Carbon farming

New business model Upscaling

The aim of this group is to explore and expand innovative business models that prioritise soil health. Our focus is on understanding and advancing businesses related to the transition to regenerative agriculture from multiple perspectives, including social, economic and environmental considerations. What to expect from this community?

Business analysis: Examine existing soil health-focused businesses to understand their strategies, successes, and challenges.

Model development: Development of methodologies to develop new business models focused on soil health.

Scaling-up opportunities: Exploration of strategies for scaling up these businesses, identifying avenues for sustainable growth and market expansion.

Holistic impact assessment: Analysis of the social, economic and environmental impact of soil health businesses, ensuring a comprehensive understanding of their effects.



Takeaways

Promoting awareness and collaboration across sectors, involving academia, government, the public sector and civil society, is essential to address the problem of soil health.

The creation of solid business models is crucial to achieve financial sustainability, reduce dependence on external support, develop attractive products for consumers, identify markets and enable the growth and expansion of soil health related initiatives (such as Living Labs).

Economic valorisation of soil ecosystem services can facilitate the integration of soil health into business strategies.

The Triple Layered Business Model Canvas enables the inclusion of economic, environmental and social aspects in business planning.

The online collaborative platform created in the framework of the InBestSoil project is an opportunity to establish collaborations between Soil Mission projects.



Thank you!

Diego Soto Gómez

Email: diego.cerreda@gmail.com

Telephone: +34 660 679 251

Website: https://inbestsoil.eu/

#MissionSoilWeek #MissionSoil #EUMissions





[O]



European Research Executive Agency (REA)











Building the soil health business case for the food value chain

Anne-Sophie Leroy **Earthworm**



#MissionSoilWeek #MissionSoil #EUMissions







22/11/2023



Food value chain actors do have a business case for soil health



- Companies:
 - Reducing their scope 3 emissions (through carbon storage in agricultural soils)
 - Ensuring the resilience of their supply chain
 - ...



- Suppliers (coops, traders):
 - An opportunity to develop a new segment that can be valorized
 - ...



- Farmers:
 - Farm autonomy
 - Maintaining yields
 - An opportunity to access new markets
 - ...

How to create an alignment and ensure all actors work together towards common goals?

#MissionSoilWeek #MissionSoil #EUMissions

∑arthworm

EUROPEAN MISSION SOIL WEEK



∑arthworm

Need to build consensus between supply chain actors of a given territory on:

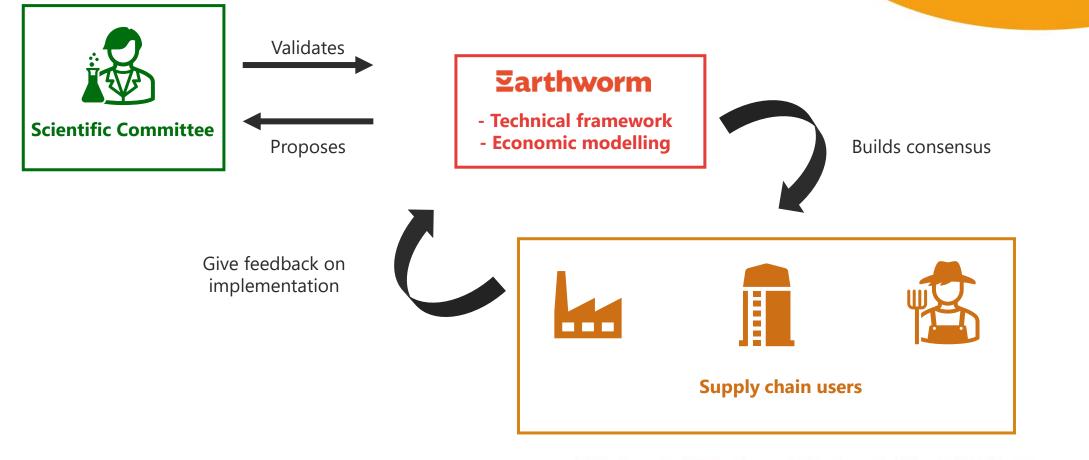
- 1. The environmental/social objectives and the level of ambition
- 2. The kind of practices which are more likely to have an impact and allow to reach the objectives, in the considered farming context
- 3. How to measure the performance of those practices
- 4. How much it will cost farmers to transition to those practices
- 5. How much they will be rewarded for their performance
- 6. How costs will be allocated between the different actors of the value chains

EUROPEAN MISSION SOIL WEEK



How we create alignment

EUROPEAN MISSION SOIL WEEK

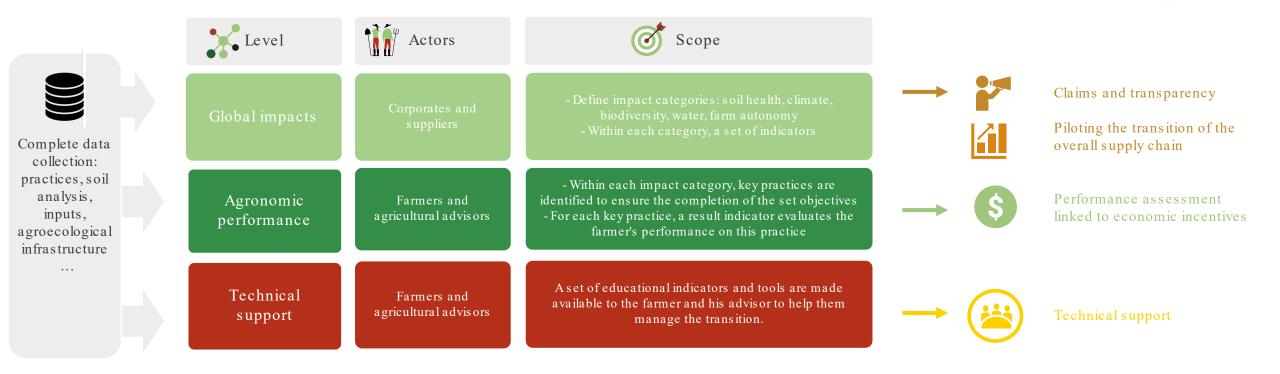


#MissionSoilWeek #MissionSoil #EUMissions



A technical framework that is a complete toolbox for the different actors of the supply chain

EUROPEAN MISSION SOIL WEEK



#MissionSoilWeek #MissionSoil #EUMissions



A territorial logic of intervention

Example of the Hauts de France region in France



400+ farms involved





An innovative model, putting coops at the centre

Contribution for Coalition of interests of **Public funding** support agri-food compagnies Example of Transitions – a project designed by the French cooperative evivescia TRAN in collaboration with **Zarthworm** TINS Target: 1000 farmers Incentives for Project Insurance **MRV Technical support to** Vivescia staff farmers management farmers upskilling + new recruitment

⊇arthworm

Premium on grains

#MissionSoilWeek #MissionSoil #EUMissions

EUROPEAN

WEEK

MISSION SOIL





Supply chain actors involved



Supporting partners



#MissionSoilWeek #MissionSoil #EUMissions



Thank you!

Email: a.leroy@earthworm.org

Website: mission-soil-platform.ec.europa.eu





in European Research Executive Agency (REA)











The catalytic effect of innovative finance in supporting farmers' transition

Matteo Vanzini KOIS



Agenda

- Introducing KOIS
- Farmers' perspective
- Stakeholders' perspective
- Incentives and their effectiveness
- Innovation and blended finance

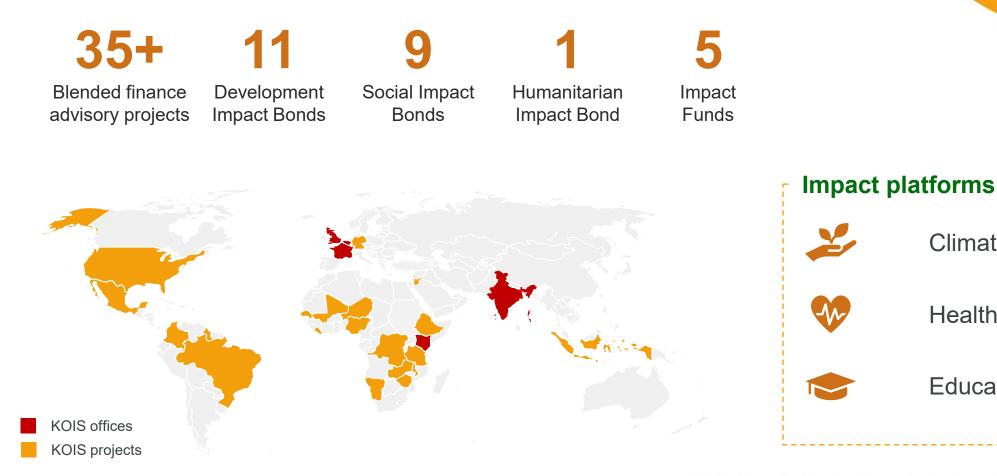




EUROPEAN MISSION SOIL WEEK



KOIS: impact finance organisation



EUROPEAN MISSION SOIL WEEK

	MissionSoilWeek	#MissionSoil	#EUMissions
--	-----------------	--------------	--------------------

#

Health

Climate & Nature

Education & Employment



Exploring financing and business model solutions for soil health and regenerative agriculture

Regenerative agriculture is a growing movement, attractive to both commercial and concessional capital providers because it offers a way to rebuild soil and regenerate farmers, local communities, and whole ecosystems while making an appropriate and fair return on investment

Learning organisation



Developing innovative financial products to enable and support farmers' transition



EUROPEAN MISSION SOIL WEEK

1) SoilValues, Horizon Europe project under grant agreement: 101091308



While the benefits of soil-health are understood, farmers face numerous barriers to their transition

EUROPEAN MISSION SOIL WEEK



Psychological:

- Perceived risk
- Innovation aversion
- Social norms
- Regulation resistance



Financial:

- Additional costs: CapEx & OpEx
- Access to finance
- Increased financial risk
- Opportunity cost



Technical:

- Awareness & Knowledge
- Additional complexity
- Specialised labour



Market:

- Market immaturity
- Uncertain market conditions
- Demand & supply mismatch



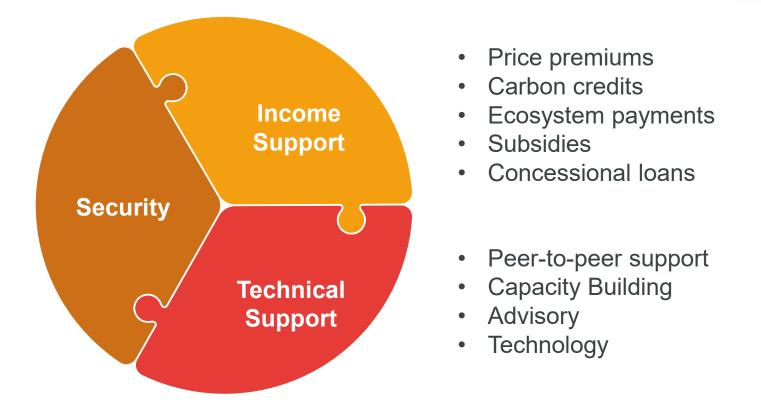
The importance of soil extend to other stakeholders who are willing to support farmers in this endeavour

	Policy Makers	Public / Private Investors	Financial Intermediaries	Insurance Companies	Corporate Companies	Project Intermediaries
Drivers	 Climate targets Nature conservation Food security 	 Market opportunity Impact investments 	 Climate targets Market positioning Risk mitigation 	Risk mitigationCost savings	Climate targetsBrandingSustainability	 Market opportunity Product development
	Sustainability targets		Risk mitigation		Market opportunities	



The right incentives are needed to nudge and foster farmers' transition to regenerative farming practices

EUROPEAN MISSION SOIL WEEK

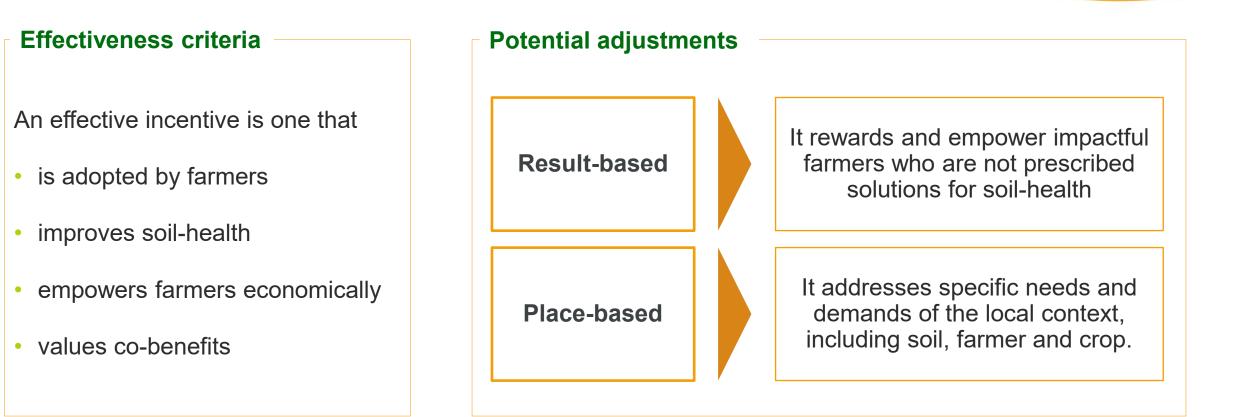


- Multi-year off-take
- Market access
- Compensation loss
- Insurance



Existing incentives can be redesigned more effectively to increase their impact and adoption among farmers

EUROPEAN MISSION SOIL WEEK





...or we can innovate our approach on how we support and incentivise farmers' transition (1/2)

There is no silver bullet, one-size-fit-all. A multi-layer, **farmer centred approach** is needed to **bring together a wide range of stakeholders**, address different needs at different stages, and blend different types of capital and risk appetite.





Farmer transitioning to soil-health & regenerative farming practices

#MissionSoilWeek #MissionSoil #EUMissions

EUROPEAN MISSION SOIL WEEK



...or we can innovate our approach on how we support and incentivise farmers' transition (2/2)

There is no silver bullet, one-size-fit-all. A **multi-layer**, farmer centred approach is needed to bring together a wide range of stakeholders, **address different needs at different stages**, and blend different types of capital and risk appetite.



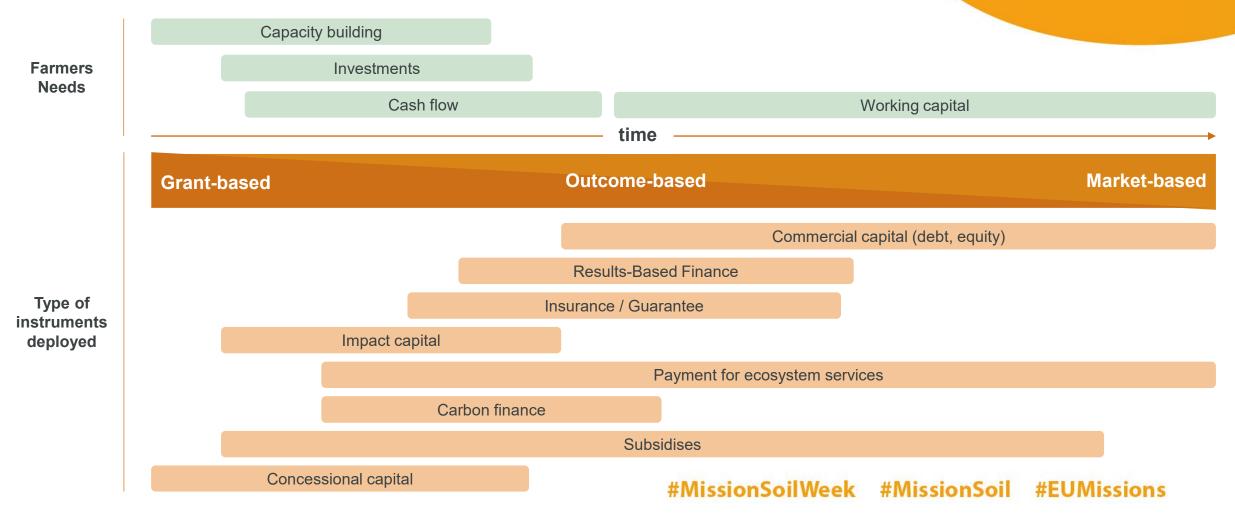
EUROPEAN

WEEK

MISSION SOIL



Blending capital rebalances risk-reward profiles of impact investments to become commercially viable over time



EUROPEAN

WEEK

MISSION SOIL



The multiple benefits of blended finance should be harnessed to support farmers and improve soil health

EUROPEAN MISSION SOIL WEEK

Catalyse philanthropic and public funds to attract private capital

Address financial and non-financial **needs**, specific to the transition stage targeted

Align **interests** and **time-horizon** of investors with the goals of RegAg

Increase upfront capital and **financing** available throughout the transition

Mitigate **risks** and distribute those to stakeholders best suited to bear them



Thank you!

Email: matteo@koisinvest.com

Website: mission-soil-platform.ec.europa.eu

#MissionSoilWeek #MissionSoil #EUMissions





@euagrifood













Building Business Cases for Industry to Contribute to Improved Soil Health

network for industrially co-ordinated sustainable land management in europe

Oliver Phipps Partner, ERM and Nicole



Soil Health: Industry can make an Impact

- Key Objectives of the EU Soil Mission:
- 1. Reduce desertification
- 2. Conserve soil organic carbon stocks
- 3. Stop soil sealing and increase re-use of urban soils
- 4. Reduce soil pollution and enhance restoration
- 5. Prevent erosion
- 6. Improve soil structure to enhance soil biodiversity
- 7. Reduce the EU global footprint on soils
- 8. Improve soil literacy in society

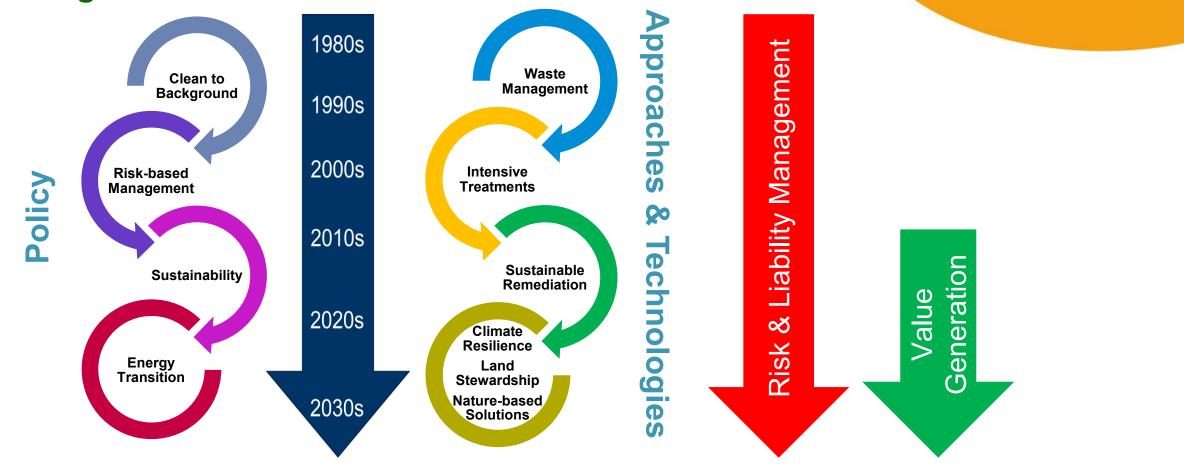
EUROPEAN MISSION SOIL WEEK

Topics to be discussed, drawing on industry's mature approach to sustainable land management:

- 1. Industry's evolving approach to sustainable land management
- 2. Indicators to build business cases at a site and portfolio scale
- 3. Some examples of successful business cases
- 4. Communicating business cases to investors & decision-makers



Industry's Evolving Approach to Sustainable Land Management



#MissionSoilWeek #MissionSoil #EUMissions

EUROPEAN

WEEK

MISSION SOIL



Indicators to Build Business Cases at a Site and Portfolio Scale

Financial

- Real estate transactions
- Cash generation (e.g. rental, energy generation)
- Efficient reduction in financial provisions
- Investor and business confidence



Environmental

- Improved sustainability performance
- Creation of natural capital (e.g. biodiversity net gain)
- Reduction in environmental impact (e.g. water)
- Contribution to meeting decarbonization goals



Social

- Land returned to productive use
- Creation of social capital (e.g. community benefit)
- Reduction in reputational risk
- Addressing social and environmental justice



All of the above indicators can be quantified and most can be monetised

#MissionSoilWeek #MissionSoil #EUMissions

EUROPEAN MISSION SOIL WEEK



Some Examples of Successful Business Cases



Reimagining Mine Clonure / Repurporing

How can I leave the land and its communities in a better condition than it was before through a shared value regeneration approach?

How can embedding decarbonisation and sustainability considerations better position my company to manage risks and generate value creation opportunities?

What strategic objectives and broader outcomes can deliver regional sustainable value, nature positive outcomes and a lasting positive legacy?

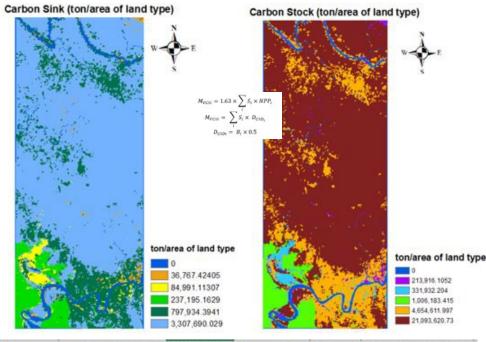
How can we pro-actively engage critical stakeholders and form strategic and collaborative partnerships to unlock local and regional opportunities that arise from different closure regeneration outcomes?



Reimagining

Mine Closure

Quantifying Carbon Sinks & Stocks across Global Land Portfolio



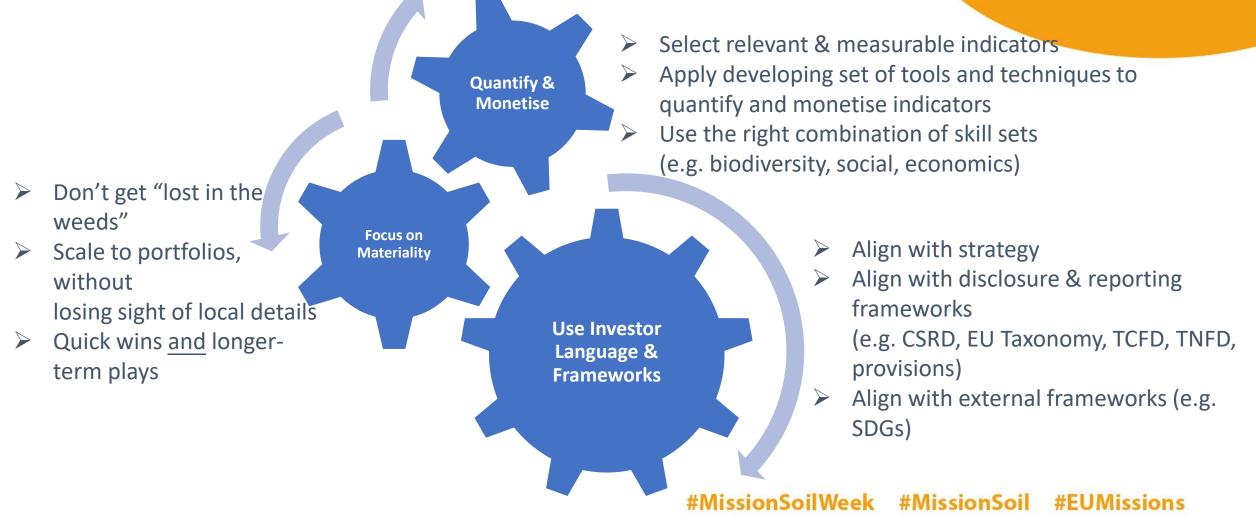
332.0471833	20720.47	
00010472000	2070947	21093620.73
210.7038935	233514.3	1006183.416
196.0280794	30529.01	331932.204
289.1972294	464886	4482653.536
300.2910849	155043.9	222122.1118
	210.7038935 196.0280794 289.1972294	210.7038935 233514.3 196.0280794 30529.01

Land Stewardship Booklet **Common Forum & NICOLE** (2022)



Communicating Business Cases to Investors & Decision-Makers

EUROPEAN MISSION SOIL WEEK





Thank you!

Oliver Phipps | Partner, ERM

Email: oliver.phipps@erm.com

Telephone : +44 7769 238 357





European Research Executive Agency (REA)

in



Business models for soil health

Thomas de Bang Senior Scientific Manager, Novo Nordisk Foundation



#MissionSoilWeek #MissionSoil #EUMissions











22/11/2023



The Novo Nordisk Foundation and its interest in soil health

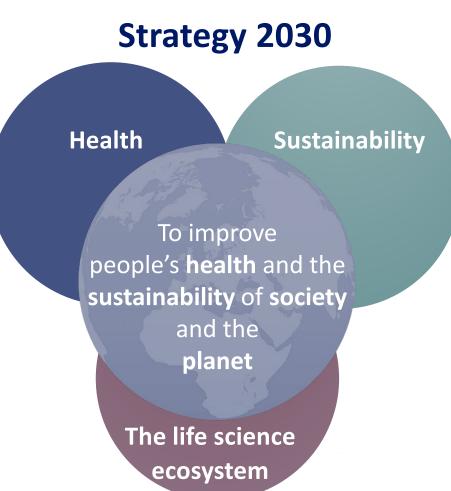
Novo Nordisk Foundation is an independent Danish foundation with corporate interests in the **Novo Group** and 160+ other companies.

Corporate purpose

To provide a stable basis for the commercial and research activities of the Novo Group companies.

Philanthropic purposes

- To support physiological, endocrinological, metabolic and other medical research,
- To support research hospital activities within diabetes in Denmark, and
- To support other scientific as well as humanitarian and social purposes.



EUROPEAN MISSION SOIL WEEK

Sustainability

- 1 Sustainable and high-yield agriculture
- 2 Sustainable food for healthy diets
- 3 High-impact climate change mitigation technologies
- 4 Supporting society in the green transition



Talking points

Major societal challenges are connected to soil health

Biodiversity

Climate change

Food security

Pull mechanisms

EU regulatory level - CAP can stimulate changes in management practices.

National regulatory level - national GHG accounting and biodiversity strategies.

Industry Scope 3 emissions (+biodiversity) - premium prices for regenerative agriculture and land-use change.

Push mechanisms

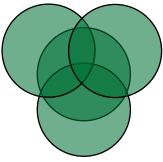
Science-based solutions provided by academia, start-ups, and industry e.g. MRV. Farmers and societal actors

EUROPEAN MISSION SOIL WEEK

Role of philanthropy

- Research & Innovation
- Education
- Advocacy
- Global scaling

Quadruple helix partnerships



#MissionSoilWeek #MissionSoil

#EUMissions



Thank you!

Email: tdb@novo.dk

Website: mission-soil-platform.ec.europa.eu





[O]

@euagrifood





Panel discussion



Johan De Fraye

Global Head of Environment, Health, Safety and Remediation

Signify



Diego Soto

Researcher Environmental Agrobiology

University of Vigo



EUROPEAN MISSION SOIL WEEK

Matteo Vanzini Associate KOIS Invest



Anne-Sophie Leroy

Global Lead Regenerative Agriculture

Earthworm Foundation



Oliver Phipps

Partner and Global Account Director

ERM



Thomas de Bang

Senior Scientific Manager

#MissionSoilWeek

#MissionSoil #EUMissions

Novo Nordisk Foundation







Participatory exercise Sli.do

Please take your mobile phones



Conclusions and closing



Thank you!

Website: mission-soil-platform.ec.europa.eu

#MissionSoilWeek #MissionSoil #EUMissions





0









