



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817819

**Project funded by**



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Education,  
Research and Innovation SERI

# InBestSoil

Monetary valuation of soil ecosystem services and creation of initiatives to invest in soil health: setting a framework for the inclusion of soil health in business and in the policy making process

Grant agreement No 101091099

D5.1 How to design sustainable business models: A research integrated protocol

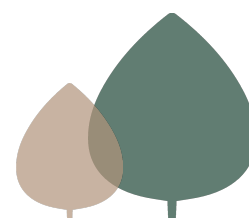


# How to design sustainable business models: A research integrated protocol

## Summary

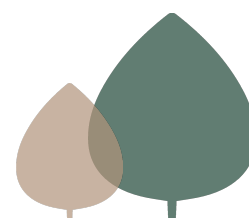
This protocol is a research-informed guide intended to support sustainability initiatives (i.e. Case Studies, Living Labs, Lighthouses, innovation platforms, etc.) in identifying and designing sustainable business model solutions to shared social, ecological, and economic challenges. The protocol, which supports the development of sustainable business models, guides the readers through the four main stages: initiating, learning, strategizing, and reflecting. By following the activities outlined in these stages, initiatives will 1) begin joint activity and define the scope of their initiative, 2) take part in collective sense-making activities, 3) envision and strategize how to create economic, social, and environmental value, and 4) assess and, as necessary, revise the activities to adapt and develop continually. Together, these activities build a *sustainable business model portfolio*, which serves as a tangible output of the work the initiative has done together.

Deliverable Number		Work Package	
D5.1		WP5	
Lead Beneficiary		Deliverable Author(s)	
UOE and WUR		Liza Wood [UOE] Stefano Pascucci [UOE] Arno Foppe [WUR] Shayegheh Ashouri [WUR] Valentina Materia [WUR] Alireza Alerasoul [WUR]	
Versions (updates)		Date	
V1		30.04.2024	
V2		13.05.2024	
Deliverable Quality Check		Date	
Zabala		03.05.2024	
Planned Delivery Date		Final Delivery Date	
M16 (30.04.2023)		13.05.2023	
Type of deliverable	R	Document, report (excluding periodic and final reports)	x
	DEC	Websites, patents filing, press & media actions, videos	
	E	Ethics	
Dissemination Level	PU	Public	x
	CO	Confidential, only for members of the consortium	



# Table of contents

1. Introduction.....	4
2. Background: Business models and sustainability .....	5
3. Overview: Using this protocol .....	6
Who is this protocol for? .....	6
What's in this protocol?.....	6
What should come out of this protocol? .....	8
How to use this protocol? .....	8
4. Guide for sustainable business model design .....	9
Stage 1. Initiating: Defining the scope of the sustainability initiative .....	9
1.1 Problem identification .....	9
1.2 Group formation .....	10
1.3 Rule-making.....	12
Stage 2. Learning: Making sense of the system.....	14
2.1 Systems mapping .....	14
Stage 3. Strategizing: Developing a business model.....	18
3.1 SBM designing.....	18
3.2 SBM strategizing.....	22
Stage 4. Reflecting: Assessment & revision.....	24
4.1 Assessment.....	24
4.2 Portfolio revision .....	25
5. Methods and references.....	26
Appendix I: Sustainable Business Model Portfolio Template.....	27
Appendix II. Sustainable Business Model Guidebook .....	51
Appendix III. Optional activities .....	58

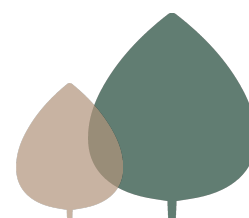


# 1. Introduction

This protocol is a research-informed guide intended to support sustainability initiatives (i.e. Case Studies, Living Labs, Lighthouses, innovation platforms, etc.) in identifying and designing sustainable business model solutions to shared social, ecological, and economic challenges. The protocol, which supports the development of sustainable business models, guides the readers through the four main stages: initiating, learning, strategizing, and reflecting. By following the activities outlined in these stages, initiatives will 1) begin joint activity and define the scope of their initiative, 2) take part in collective sense-making activities, 3) envision and strategize how to create economic, social, and environmental value, and 4) assess and, as necessary, revise the activities to adapt and develop continually. Together, these activities build a *sustainable business model portfolio*, which serves as a tangible output of the work the initiative has done together.

The main sections of this protocol are as follows:

- Section 2 introduces the concept of business models to explain how they can help address complex sustainability challenges and contribute to long-term success.
- Section 3 serves as an overview of the protocol's target audience and content.
- Section 4 provides a step-by-step guide for different activities across the stages to support the sustainable business model design process.
- Appendix I is a sustainable business model portfolio template, providing instructions and worksheets that mirror the activities from Section 4.
- Appendix II is a guidebook that highlights different examples of sustainable business models for soil health across Europe and discusses variations of collaboration.
- Appendix III includes optional activities that initiatives may want to complete.





## 2. Background: Business models and sustainability

Business models are a representation of "the value proposition, value creation and delivery, and value capture elements and the interactions between these elements within an organisational unit."<sup>1</sup> In short, a business model is the architecture describing how an organisation does business and generates economic value.<sup>2,3</sup> They are often mapped using a Business Model Canvas,<sup>4</sup> which helps to clarify an initiative's purpose and sets up them for long-term success.

This protocol is based on the *sustainable business model* (SBM) approach. SBMs are "business models that incorporate pro-active multi-stakeholder management, the creation of monetary and non-monetary value for a broad range of stakeholders, and hold a long-term perspective."<sup>1</sup> SBMs can take many forms, but there are three shared principles<sup>5</sup> of SBMs on which this protocol is founded, visualised in Figure 1.

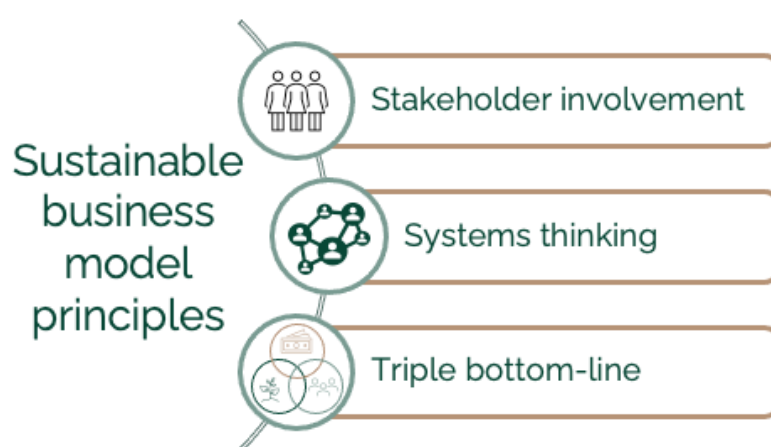


Figure 1. Sustainable business model principles<sup>5</sup>

**Stakeholder involvement** is an important part of SBM design. Some sustainability challenges are too complex to be tackled by a single or narrow set of actors. By working together different stakeholders can share knowledge and resources to improve the overall acceptability of a decision. For example, a land manager who stewards soil through cover cropping may want to be involved in carbon markets. However, in order to do so they would need to collaborate with other stakeholders to identify interested businesses or public agencies and establish credible carbon storage assessment tools and verification processes.

**Systems thinking** is necessary to help understand interdependencies: how different parts of social and environmental systems connect and feedback to create virtuous or vicious cycles. Seeing an initiative as one part of a broader system can help anticipate and address complex challenges. For example, soil degradation on site may result from factors beyond the land user's control, like runoff from neighbouring land contaminating the soil (environmental), or broader supply chain issues limiting crop options due to small-scale processor unavailability (social).

**Triple bottom-line** thinking means considering the economic, environmental, and social dimensions in the SBM design. By having this triple bottom line in mind when planning a business, economic value can be captured in a way that also improves social and environmental welfare. For instance, a sustainable forestry model that has diverse tree stands and avoids clear-cutting balances economic gains from logging with environmental and social benefits like improving water quality and preventing runoff.



### 3. Overview: Using this protocol

Before getting started with the content of the protocol, it is good to be clear on who this protocol is for, what it contains, what to expect out of it, and how it can be used to suit the needs of different initiatives.

#### Who is this protocol for?

This protocol is for coordinators of a **sustainability initiative**, defined as a group of actors who come together to address a shared sustainability challenge. Initiatives include Living Labs (LLs) and Lighthouses (LHs), as well as other settings like innovation platforms or multi-stakeholder case studies. All of these initiatives are considered to be collaborative, given that they involve different actors working together to pursue a common goal (for more on this topic, see [Box 4](#)).

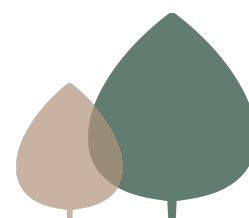
**Coordinators of sustainability initiatives** are the researcher(s) or practitioner(s) (individuals or groups) who have an embedded leadership role in the initiative. The coordinator(s) play an important role in organising the group, and therefore coordinators must play an active role in carrying out the protocol. Others who are involved in the initiative are referred to as participants, while a stakeholder is an individual or entity directly or indirectly impacted by or influencing the initiative, but not necessarily participating.

#### Box 1. Definitions:

- Sustainability initiative: a group of actors who come together to address a shared sustainability challenge
- Collaboration: two or more actors working together to address a shared goal (e.g. understand interdependencies, problem-solve for a given challenge)
- Coordinator: researcher(s) or practitioner(s) who have an embedded leadership role in the initiative
- Stakeholders: the broad pool of actors who affect or are affected by the initiative
- Participant: a stakeholder who chooses to join the initiative

#### What's in this protocol?

There are **four main stages in this protocol**: initiating, learning, strategizing, and reflecting.<sup>6</sup> Within each stage there are a number of activities that help further the purpose, visualised in Figure 2. While these stages are presented in a sequence, the order in which they're used can change depending on the development stage and needs of the initiative (see How to use this protocol?).



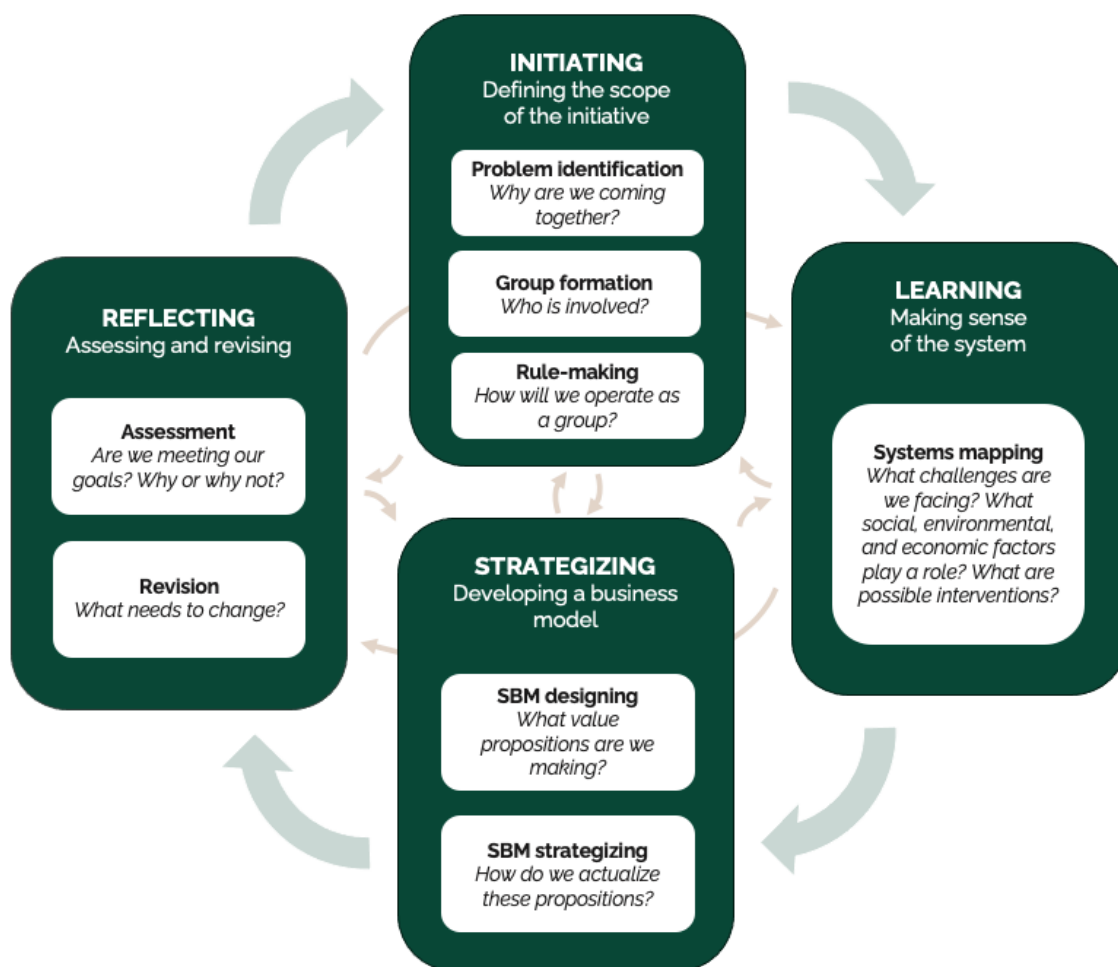
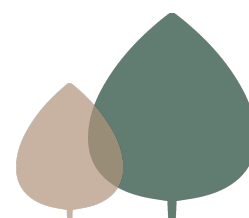


Figure 2. Overview of protocol stages and activities, with green arrows representing the proposed order of the activities and the light brown arrows demonstrating that the stages can be linked in any order

1. The first '**initiating**' stage involves participants coming together to initiate joint activity and define the scope of their initiative: *Why are we coming together? Who is involved? And how will we operate as a group?*
2. Participants then engage in the second '**learning**' stage by taking part in collective sense-making activities that result in the creation of maps of the broader system they are in: *What challenges are we facing? What social, environmental, and economic factors play a role in these challenges? What are possible interventions?*
3. The third '**strategizing**' stage involves participants translating their initiative's scope and systems maps into actionable plans: *What environmental, social, and economic value propositions are we making through our initiative? And what do we need to do to actualize these propositions?*
4. And finally, the plans created in the previous step are carried out, assessed, and revised as necessary throughout the fourth '**reflecting**' stage: *Are we meeting the goals we set? Why or why not? What needs to change?*

Detailed explanations of how to carry out these processes can be found in Section 4 and templates with instructions in Appendix I.



## What should come out of this protocol?

Each of the activities in the protocol results in a written output. By combining these different outputs, initiatives will create a **sustainable business model (SBM) portfolio**. This portfolio represents the work that initiatives have put towards their SBM and serves as a living document that they can reference, learn from, and revise over time. The SBM portfolio will have seven outputs in total (Figure 3).

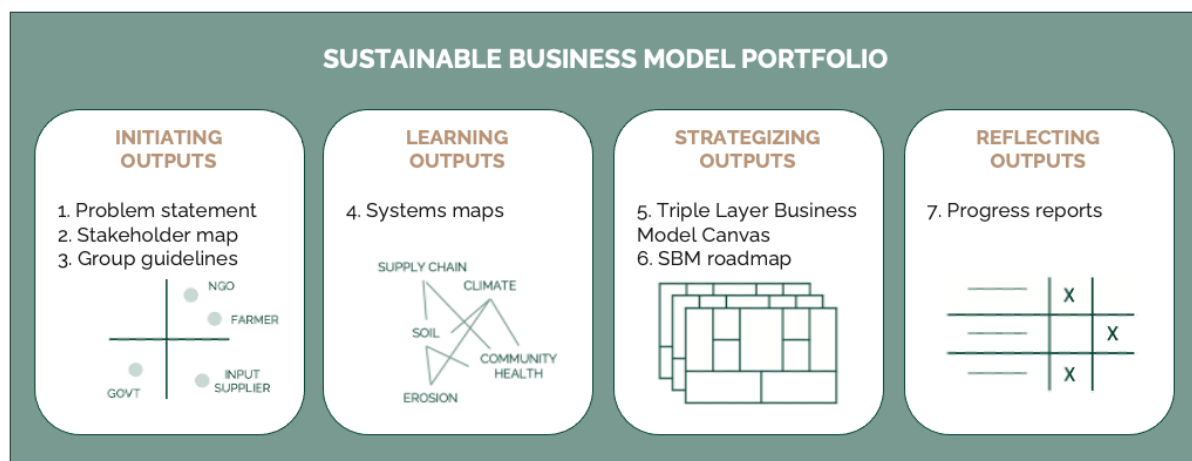


Figure 3. Summary of SBM portfolio outputs

The outputs from the initiating stage include a problem statement, stakeholder map, and group guidelines. From the second learning stage, the outputs are a visual description of the system in which the initiative is embedded. The outputs from the first two stages should help inform the third stage, where participants develop their initiative's Triple Layer Business Model Canvas (TLBMC) and strategic SBM roadmap – the vision of their SBM and actionable steps to get there. Finally, the last stage of the portfolio is meant to support the assessment of progress and revision of the portfolio over time. Developing these outputs takes an estimated 10-20 hours, spread out across several months.

## How to use this protocol?

The activities in this protocol's stages offer a range of options for coordinators and participants to choose from, depending on their initiative's needs and limitations. While the ideal scenario involves engaging in all activities sequentially and fully, we encourage adaptation based on real-world constraints.

To embrace flexibility and adapt this protocol to the initiative's needs, we highlight the following:

- Activities can be completed in any order and revisited as the initiative evolves.
- Some activities may be completed by only a subset of partners, the coordinators, or with the help of outside experts, depending on resources and constraints.
- Some of the tools and examples may not be relevant to all initiatives – consider them as a guide and not a rigid template.

This protocol is a living document. As authors, we'll update it based on usage feedback, releasing adjusted versions and tools to suit various scenarios.



## 4. Guide for sustainable business model design

### Stage 1. Initiating: Defining the scope of the sustainability initiative

#### 1.1 Problem identification

**Who should be involved?** Coordinator(s), based on discussions with stakeholders. In cases where initiatives are already formed, this discussion would include existing participants.

**What is the main activity?** Identify an understanding of what issue brings this initiative together.

**Why?** Having a baseline understanding of the issue that the group is working to address can help guide the group formation process, as the boundaries of the problem may help determine what partners to bring into the group.

**How?** The coordinator should observe the situation and discuss with other actors who are knowledgeable about the area (e.g. local stakeholders, existing partners, and experts) to define the problem.

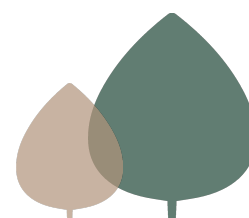
Questions to support reflection and discussion for problem identification include:

- What challenges are you facing?
- How did you realise this is a problem?
- How is it connected to other issues?
- Who is relevant to this issue?

**Outcome:** A preliminary problem statement (Portfolio Output 1) that can be used to start a conversation and/or invite potential partners into the initiative.

#### Example:

1. Problem statement
Soil fertility is low due to mono-cropping, and climate extremes are adding more stress, but diverse farm operations are challenging to make profitable. Our initiative wants to understand how to profitably incorporate nitrogen-fixing crops into crop rotations.





## 1.2 Group formation

**Who should be involved?** For initiatives that are just starting, coordinator(s) take a leading role to invite others (e.g. potential participants) and begin building a network. For existing initiatives, the current coordinator(s) and participants can work together.

**What is the main activity?** Bring together stakeholders who are interested and/or affected by the focal problem, defined in stage 1.1. This activity is about capitalising on existing networks and building new ones through both formal and informal channels.

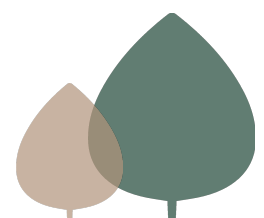
**Why?** Identifying who is affected by the focal problem and interested in working to address it provides a starting point for collaboration and a preliminary understanding of who is (and is not) actively involved in the boundaries of the initiative's system.

**How?** The coordinator should reflect on all possible stakeholders and have discussions with actors (e.g. local stakeholders, existing partners, and experts) who are close to and/or knowledgeable about the issue.

Group formation steps include:

- *List stakeholders:* Research and reflect on who is involved in the focal challenge and create a list of these actors. Remember that including a diverse set of actors is important. Create a list of all these stakeholders.
- *Influence and interest:* Consider the influence and interest of the different stakeholders. How much (economic, social, environmental) influence does each stakeholder have over the problem and the forming initiative? How affected is each stakeholder by the problem and activities of the initiative? How might this relate to their interest in the initiative?
- *Reach out:* After this assessment, reach out and clarify with actors to determine who might be interested in being involved in the initiative. At this point, there is little commitment or plan, just interest.

**Outcome:** A complete stakeholder map (Portfolio Output 2), including a stakeholder list and influence-interest matrix

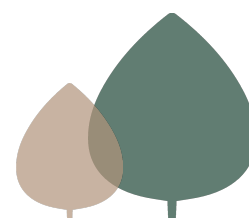


**Example:<sup>1</sup>**

2. Stakeholder map						
Stakeholder category	Stakeholder name	How much (economic, social, environmental) influence does this stakeholder exert on the LL/LH activities?			How affected is this stakeholder by the activities of the LL/LH?	TOTAL
		ECONOMIC	SOCIAL	ENVIRON.		
Academia /Research organisation	Wageningen University researchers*	2	1	0	1	4
Business company	Large Mill Co.	1	0	0	1	2
	Wholesaler*	2	0	1	2	5
	Stone Mill*	2	1	2	2	7
	Heritage Mill*	2	1	2	2	7
	Event Caterer	1	1	1	1	4
	Local Farm Shop	2	1	1	1	5
Farmer / Breeder	Grain Farms LLC	1	2	2	1	6
	Pork Producers Co.	1	1	2	1	5
	Organic Label Farm*	1	1	2	1	5
	Dutch Grains Farm*	1	1	2	1	5
	Diversity Farms*	1	1	2	1	5
Public Bodies	Ministry of Agriculture	1	1	0	1	3
	Provincial Authority*	0	1	0	1	2
Civil Society Organisation	Campaign for Plant Protein*	0	2	0	2	4
	Farm Shop Association*	2	1	0	0	2
	Community Initiative for Environmental Education	1	1	0	0	2

**Resources:** For those interested in reading more about group formation and involvement, the [Soil Mission Support: Actor Engagement Guide](#) provides additional guidance on effectively engaging actors in the example of land and soil management.

<sup>1</sup> This activity and template were developed by Zabala Innovation for InBestSoil Deliverable 2.2



### 1.3 Rule-making

**Who should be involved?** Coordinator(s) and initiative participants

**What is the main activity?** Define preliminary guidelines for how participants and coordinators will work together in the initiative. Guidelines can range from informal, such as agreements of when/how often to meet and who leads meetings, to more formal setting of decision rules (e.g. the process of how decisions are made) and communication processes.

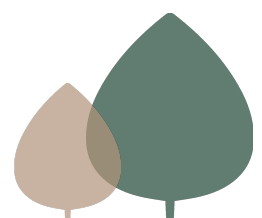
**Why?** Having guidelines around group dynamics helps set and manage expectations of the initiative. They will be also especially important for navigating the later stages of sustainable business model design, as conflict may arise and decisions will need to be made.

**How?** All of those involved in the initiative should have a discussion about what brings the group together and how they want to operate as a group. We suggest that coordinators act as the leader of this discussion, though the discussion itself may identify different roles for future meetings.

Guiding questions for the group to consider when creating guidelines may include:

- *Clarity of the purpose and goal:* What motivates you to be involved in this initiative? What are we trying to accomplish as a group?
- *Meeting and communication:* When and how often will we meet? What communication channels do you find most conducive to open and transparent discussions? How can we encourage a culture of open communication where everyone feels comfortable sharing their thoughts and concerns?
- *Roles and Responsibilities:* Who sets the agenda for our efforts? Who leads and attends meetings? What specific tasks and responsibilities do you feel aligned with based on your skills and expertise? How can we hold each other accountable for our assigned tasks?
- *Decision-Making Processes:* What decision-making processes do you find most effective for our group dynamics? (e.g. decisions are made through consensus, majority vote, or by a designated leader, etc.) Are there specific types of decisions that should follow a different process, and how should these be identified?

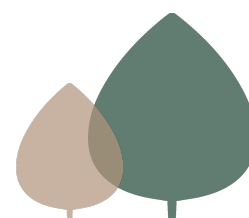
**Outcome:** A summary of the agreed-upon group guidelines (Portfolio Output 3) that can be used to guide future meetings and decision-making.



**Example:**

3. Group guidelines	
Group purpose and goals:	
<ul style="list-style-type: none"> <li>- Identify a profitable model for incorporating nitrogen-fixing crops into our rotations</li> <li>- Learn from one another about legume production and create a community of growers who care about environmental stewardship</li> <li>- Engage our community around the environmental benefits of diverse farming and build connections to their food source</li> </ul>	
Meeting and communication plan:	
<ul style="list-style-type: none"> <li>- Monthly meeting, 1-2 hours, in person</li> <li>- Each meeting has agenda, topics to include research updates, troubleshooting production challenges, organising supply chain logistics, etc. (to be decided one month in advanced)</li> <li>- Interim communication over email listserv, following listserv code of conduct</li> </ul>	
Roles and responsibilities:	
Participant	Role
Organic Label Farm	Initiative coordinator; default meeting leader, attends every session
Dutch Grains Farm	Participating farmer, attends every session, responsible for meeting notes
Diversity Farm	Participating farmer, attends every session
Wageningen University Researchers	Attends when possible; leads research sessions
Wholesaler	Attends when relevant; supply chain sessions
Stone Mill	Attends when relevant; supply chain sessions
Heritage Mill	Attends when relevant; supply chain sessions
Provincial Authority	Attends when possible
Campaign for Plant Protein	Attends when possible
Farm Shop Association	Attends when relevant; marketing sessions
Decision-making processes:	
<ul style="list-style-type: none"> <li>- Decisions will be made by majority vote based on who is in attendance of that meeting</li> <li>- Meeting notes will be shared after every meeting</li> <li>- Concerns with decisions and conduct can be raised to the coordinator</li> </ul>	

**Resources:** For ideas on potential group outcomes and accomplishments, Nat100ns – a group supporting Living Lab creation for the EU's Soil Mission – provides a list of [Living Lab activities](#). For example, LLs can work together as a co-learning group, for pooled data collection, for collectively advocating at the policy level, and for innovation experimentation. For group decision rules, Wageningen University has written an extensive [Multi-stakeholder Partnership Guide](#), which includes a short summary of different approaches to group ["decision rules"](#).



## Stage 2. Learning: Making sense of the system

### 2.1 Systems mapping

**Who should be involved?** Coordinator(s), initiative participants, and any interested stakeholders. Unless other leadership roles are defined in the rule-making phase, we suggest that coordinators lead this process, or invite an outside facilitator.

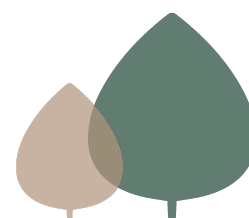
**What is the main activity?** Visually map the systems surrounding the initiative's focal challenge(s). This process includes creating two systems maps: a *causal loop diagram* and an *actor-network map*. Causal loop diagrams are a "snapshot of all relationships that matter" to understand all the parts of a system and how they relate to one another.<sup>7</sup> Actor network maps bring in actors to envision what kinds of interventions are possible and by whom.<sup>8</sup>

**Why?** A shared understanding of the challenge an initiative is facing – *and the system in which it is situated* – is an important part of building sustainable solutions.<sup>9</sup> Systems maps can help create this shared understanding by identifying feedback loops (vicious or virtuous cycles), the factors that perpetuate these cycles, and identifying leverage points for action.

**How?** The creation of the two maps – the causal loop diagram and the actor-network map – is best created in workshops with all participants. However, because these mapping exercises can take time, the coordinator may also choose to create maps separately based on discussions with individuals or small groups.

Guiding instructions and questions for creating the systems maps include:

- *Sense-making:* Begin with the causal loop diagram and consider:
  - What are the specific issues that constitute our problem?
  - And how are these specific issues causally related to each other?
 After discussing these questions and visualising the answers, participants move to their second graphic, the actor-network map and discuss:
  - Who are the specific actors that are somehow related to our problem, either because they are affected by it, or because they can influence it?
  - How are actors connected (or disconnected) to each other in a social system?
  - And which resources do they share (or not share) through their relationships?
- *Envisioning solutions:* After drafting these two maps, participants should then move to envision interventions for each. First with the causal loop diagram:
  - What are the specific issues where we, as participants, could intervene?
  - Which activities or interventions could we envision to address our problem?
 Then with the actor-network map:
  - How can we, as participants, contribute to reconfiguring the social system in ways that address our problem?
  - How can we build new relationships (or break old relationships) among actors, and with which resources, to do so?

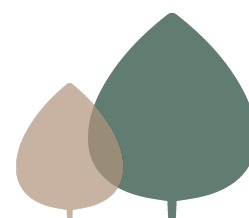
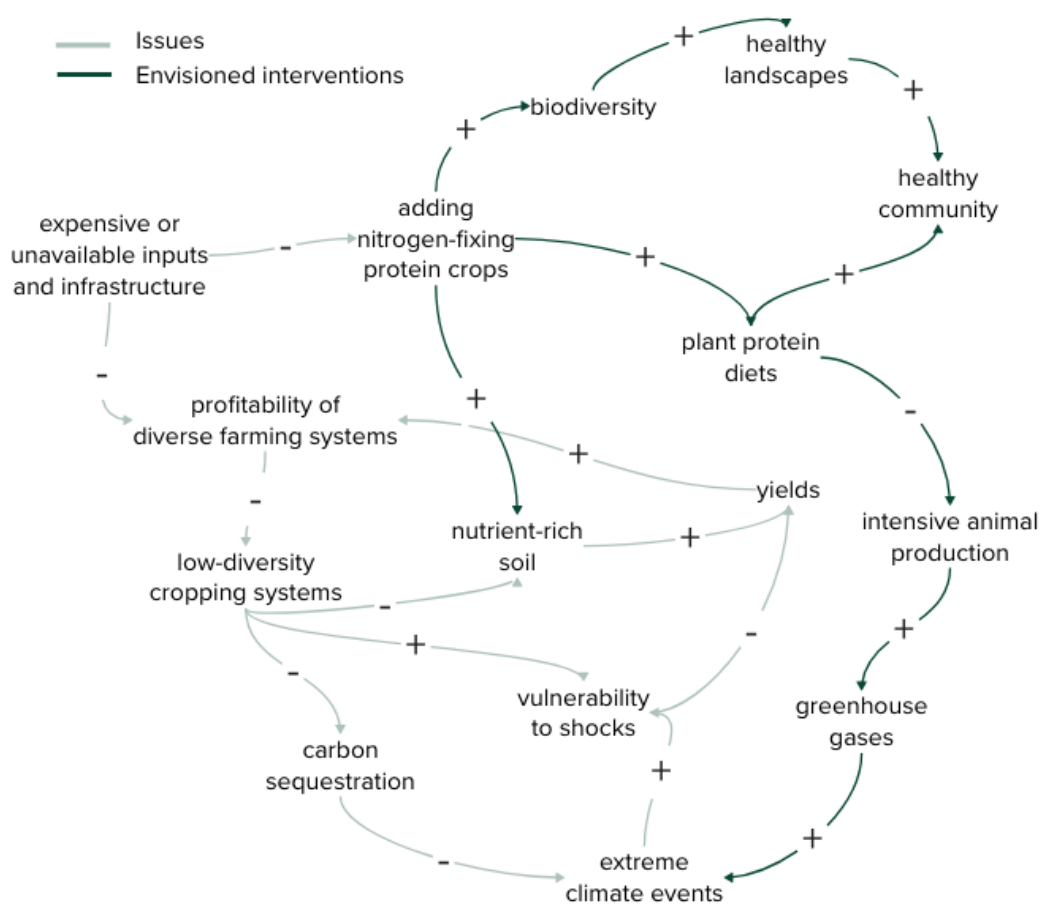




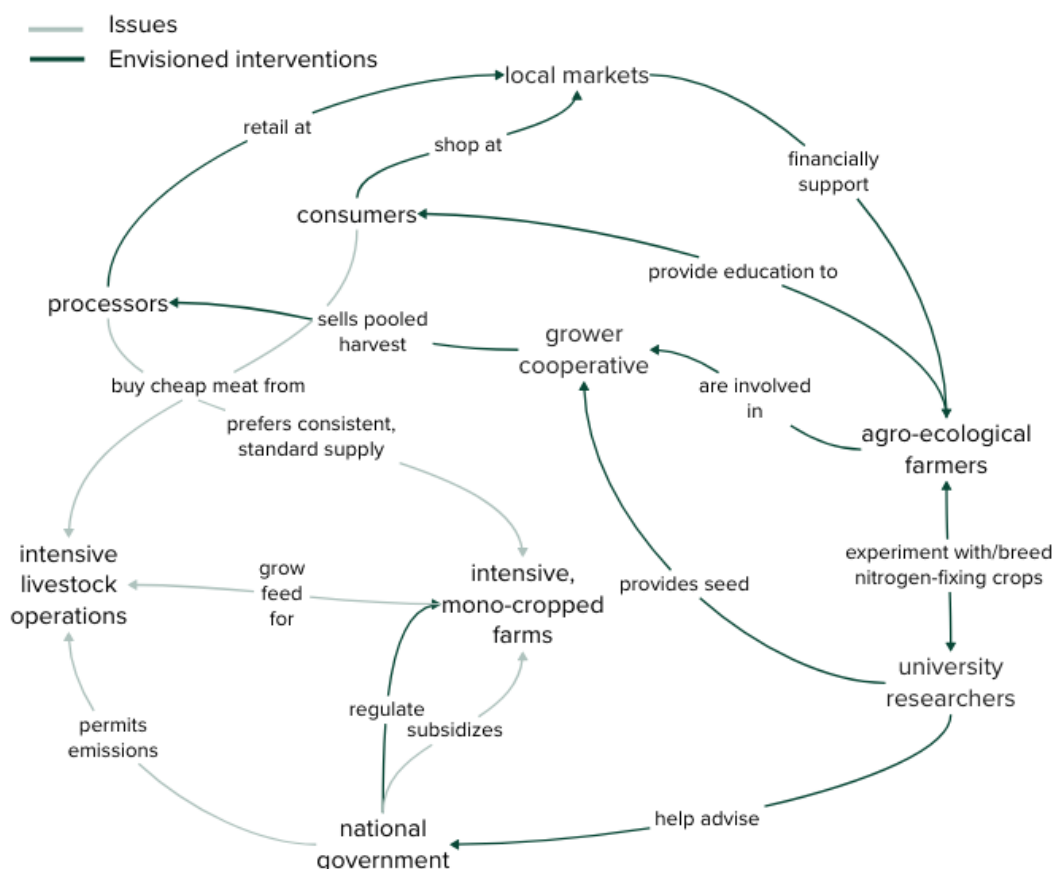
**Outcome:** Groups should develop systems maps (Portfolio Outcome 4), including a causal loop diagram and actor-network map, that reflect their sense-making and envisioning conversations.

**Example:**

### Causal loop diagram



## Actor network map

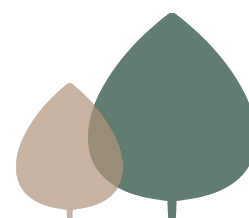


### Box 2. Representing ideas as maps:

When mapping systems the goal is to represent different *variables* and their *relationships*. The maps created in this activity differ based on what variables and relationships are in focus.

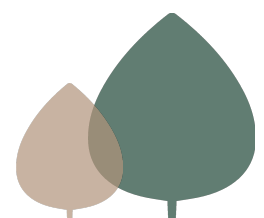
- *Causal loop diagram:* Variables include phenomena (e.g. extreme climate events), concepts (e.g. healthy landscapes), and processes (e.g. carbon sequestration). Relationships between variables are generally thought of as positive or negative forces influencing one another (e.g. adding nitrogen-fixing crops has a positive or increasing effect on nutrient-rich soil). These relationships should be represented by arrows connecting variables with either positive (+) or negative (-) signs attached.
- *Actor-network map:* Variables are actors (people, organisations, or sectors) relevant to the issues mapped in the causal loop diagrams. Relationships between actors the value they exchange or create.<sup>8</sup> Value includes tangible things like resources and intangible things like knowledge or reputation. For example, university researchers can provide resources like a seed to grower cooperatives and agroecological farmers can provide education to consumers.

**Resources:** To read more about systems mapping, we recommend this research paper on [Systems Thinking, Mapping and Change in Food and Agriculture](#) by Domenico Dentoni and colleagues (2022) which reviews the steps that we use in this protocol. We also recommend that those interested in causal loop diagrams take a look at the [Local Systems Practice User Guide](#) by the United States Agency for International Development – this resource also has several other systems-thinking-based tools.



**Box 3. Technical notes on the systems mapping process:**

- *Creating the maps:* Maps can be created through hands-on (analog) and digital approaches. Analog approaches could include a whiteboard where all participants can add and erase as they discuss, or large sheets of paper that can be drawn on and/or utilise Post-it notes and other movable features to help participants add, subtract, and move ideas around. Digital map-making uses computer software designed to help with this type of visualisation. For example, free software options include [Mural](#) online whiteboards, [Kumu](#), and the canvas on [SocNetV](#).
- *Timing:* Sense-making takes time, especially when systems are complex and groups are large. As a result, systems mapping workshops should aim to be at least two hours to give time to deeply discuss, hear all participants, and cycle through questions and maps. More time may be necessary for larger groups so that groups can share their understandings between themselves.
- *Group size:* Map creation works best in small to medium-sized groups (approximately 5 people) so that everyone's voice can be heard. If a participatory mapping session includes more than 5 people, break participants into small groups so that several maps are created and discussed to capture diverse viewpoints.
- *Confusion:* Systems mapping is complex so confusion at some point in the process is likely. Common points of confusion come from boundary setting (e.g. Where does our system "end"? And at what scale are we thinking of the system, from local to global?) as well as deciding specificity (e.g. Should we talk about "government" or specific actors?). There are no right answers for this, so leaders should be prepared to help participants answer these questions collectively, depending on what feels most useful for their initiative.
- *Conflict:* Common points of conflict arise related to assigning blame and responsibility, particularly in the actor-network mapping exercise. Depending on the dynamics and tension of the group, this may not be a conversation all participants are able to have. Leaders should adjust their mapping processes accordingly based on their knowledge of conflict in the group and may benefit from bringing in an outside facilitator. It is also worth remembering that this process is about sense-making rather than decision-making, so it is okay if perceptions clash. Having group guidelines (Section 1.3) can serve as a guide for some ground rules about how participants can work through conflict as a group.



## Stage 3. Strategizing: Developing a business model

### 3.1 SBM designing

**Who should be involved?** Coordinator(s) and initiative participants. Depending on the kind of initiative, however, the extent to who is involved and how may vary (see [Box 4](#)).

**What is the main activity?** Design the initiative's sustainable business model using the Triple Layer Business Model Canvas (TLBMC), adapted for sustainability initiatives.<sup>2</sup> The TLBMC is a "practical tool for coherently integrating economic, environmental, and social concerns into a holistic view of an organisation's business model."<sup>10</sup>

**Why?** Canvases help make the value propositions of an initiative explicit, and are one of the first steps towards concrete action. With this canvas, initiatives can communicate their position and planned actions, as well as identify previously unforeseen opportunities and strategize for the long-term success of their initiative.<sup>10</sup>

**How?** The creation of the TLBMC is ideally done through a meeting where participants reflect on the possibilities of integrating sustainability into a business model, followed by a step-by-step discussion for each 'layer' of the canvas.

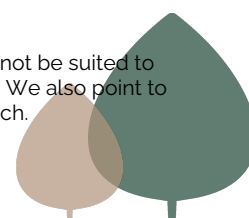
Guiding instructions and questions for completing the TLBMC include:

- *Reflecting on business models and sustainability*
  - What business model examples do you think of as good models of sustainable businesses or organisations?
  - Of these different approaches, what do you find interesting or appealing? What is not interesting or appealing?
  - (If relevant) Reflect on your current business model approach. Which parts are more or less sustainable?

To supplement the examples identified in this reflection, we provide an SBM Guidebook that shares soil-related examples from around Europe.

- *Completing the canvas:* After these reflections, walk through the questions in each "layer" on the TLBMC. This is an iterative process with each canvas potentially needing revisited as new ideas emerge in each layer.
  - *Economic canvas:* Start by reflecting on what economic value this initiative brings. What problems are you solving (pains) or needs are you fulfilling (gains)? Then consider who this value is for (i.e. your customers/funders)? How do you reach and maintain relationships with them? Next, what are the key activities and resources you need to deliver that value? Who can help carry out these activities? Last, reflect on what this means for the overall cost structure and revenue streams for your initiative.
  - *Social canvas:* Switch mindsets now to reflect on what *social* value this initiative brings. Then consider who benefits and how, from your customers to wider society. Next, what are the social values in the operations of your initiative? What social value is created internally and within your communities? Last, reflect on what this means for the overall social costs and benefits of your initiative.

<sup>2</sup> The TLBMC is one of many different canvases for conceptualising business models. This canvas may not be suited to every initiative, so we encourage groups to be creative in their utilisation of it for what suits their needs. We also point to another mapping tool in the resources section, in case initiatives are interested in using another approach.



- *Environmental canvas*: Finally, switch mindsets again now to reflect on what *functional* value this initiative brings. This canvas is based on life-cycle analyses of your activities, so we recommend consulting a life-cycle assessment expert to support the creation of this canvas. Start by thinking about the functional value of your service/product/activity. What unit will this canvas focus on and how is it measured? Then think about how your initiative's product/service/activity is used, distributed, and disposed of. What are the environmental impacts of those stages? Next, consider the inputs that go into production or carrying out activities: how do materials and supply chains impact the environment? Last, reflect on what this means for the overall environmental costs and benefits of your initiative.

**Outcome:** A draft of the initiative's Triple Layer Business Model Canvas (Portfolio Output 5). This is a draft in the sense that the canvas will need to be revised as you work together, experiment, and evaluate progress throughout the project timeline.

**Box 4. Considering different types of collaboration in business model design:**

The TLBMC is not inherently a multi-stakeholder process – as a result, initiatives must decide what collaboration will mean for them in this process. One key decision for coordinators is the extent to which partners will be involved in the design process. Are partners mostly to be consulted and leveraged for resource complementarities? Or are partners equal in decision-making, and therefore critical to thinking through the design itself? We discuss this more in depth in the [SBM Guidebook](#), Approaches to Collaboration. Whatever the choice, we encourage thinking about the business model canvas through the lens of the systems that have been mapped and the interdependencies (positive and negative) of participants in the system.

**Example:<sup>3</sup>**

<b>7. KEY PARTNERS</b> <ul style="list-style-type: none"> <li>- Lupin farmers</li> <li>- Wholesaler</li> <li>- Food developers</li> <li>- Seed breeders</li> <li>- Virtual community/influencers</li> <li>- Multiple knowledge partners (universities, organizations)</li> <li>- University students supporting research</li> <li>- New breeding partners</li> <li>- Catering sector - chefs</li> <li>- Owners of farm shops</li> <li>- Online alternative supermarket</li> <li>- Ecobox</li> </ul>	<b>5. KEY ACTIVITIES</b> <ul style="list-style-type: none"> <li>- Cultivating lupin</li> <li>- Educating other farmers</li> <li>- Seed reproduction</li> <li>- PR campaign</li> <li>- Develop own label</li> <li>- Storage improvement</li> <li>- Processing of lupins</li> <li>- Organizing excursions</li> </ul>	<b>1. ECONOMIC VALUE PROPOSITION</b> <p>Lupin: A domestic protein-full bean that supports a healthy environment</p>	<b>4. CUSTOMER RELATIONSHIPS</b> <ul style="list-style-type: none"> <li>- Newsletter --&gt; More often</li> <li>- Lupin recipes on website</li> <li>- Congresses to have contact with business customers</li> <li>- Field days for consumers and business customers</li> </ul>	<b>2. CUSTOMER IDENTIFICATION</b> <ul style="list-style-type: none"> <li>- "Flexitarians", consumers between 25-65 on a national level or families with children</li> <li>- Wholesalers</li> <li>- Regional farm shops</li> <li>- Catering</li> </ul>
<b>8. COST STRUCTURE</b> <ul style="list-style-type: none"> <li>- Fixed costs: land, building for storage (central storage for initiative), accountant, knowledge cluster membership, machinery for cultivation, machinery for processing</li> <li>- Variable costs: Organising cultivation and education, organising sales, storage of own lupins, distribution, cultivating seed, guiding student exercises, food development, buying seeds from breeder, buying lupins from farmers, organising sales via farm shop, catering, and ecoboxes, organising field excursions, cleaning and processing of lupins</li> </ul>		<b>9. REVENUE STREAMS</b> <ul style="list-style-type: none"> <li>- Sales via wholesaler</li> <li>- Innovator subsidy</li> <li>- Sales via farm shops and catering sector</li> <li>- Central storage of lupins</li> <li>- Excursions for students, chefs, and community</li> <li>- Investors in sustainable agricultural practices</li> </ul>		

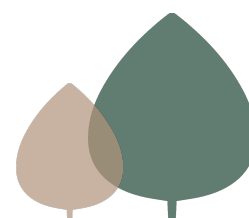
<sup>3</sup> This canvas example was adapted with permission from the Master Thesis of Nadine van der Vlies, "Farmers embracing sustainable business models to contribute to the protein transition" (2022), Wageningen University.





<b>7. STAKEHOLDERS/LOCAL COMMUNITIES</b> <ul style="list-style-type: none"> <li>- Initiative builds community as a central hub, linking stakeholders and supporting one another</li> <li>- Supports innovation</li> <li>- Volunteers who want to support our community</li> </ul>	<b>5. GOVERNANCE</b> <ul style="list-style-type: none"> <li>- Private LLC of two owners (shared decision-making)</li> <li>- Farmers contribute ideas and make their own on-farm decisions</li> <li>- Fixed location for owners and employees to meet</li> </ul> <b>6. EMPLOYEES/INITIATIVE PARTNERS</b> <ul style="list-style-type: none"> <li>- Owners and employees: 2 FTE women, 1.5 FTE men</li> <li>- 1 project manager</li> <li>- 1 communication and product development</li> <li>- 1 knowledge development</li> <li>- 1 cultivation</li> <li>- 1 processing</li> </ul>	<b>1. SOCIAL VALUE PROPOSITION</b> <ul style="list-style-type: none"> <li>- For consumers: high-quality, local, healthy protein</li> <li>- For farmers: exploring together a new crop and building community; improving soil while making a profit</li> </ul>	<b>4. SOCIETAL CULTURE</b> <ul style="list-style-type: none"> <li>- Transition to plant-based protein --&gt; vegan lifestyle</li> <li>- Nice landscape with biodiversity</li> <li>- Consuming Dutch legumes</li> </ul> <b>3. SCALE OF OUTREACH</b> <ul style="list-style-type: none"> <li>- Netherlands</li> <li>- Wageningen community</li> <li>- Europe</li> </ul>	<b>2. END-USER</b> <ul style="list-style-type: none"> <li>- Healthy diet</li> <li>- Beautiful landscape</li> <li>- Positive feelings associated with buying locally</li> <li>- Delicious product</li> <li>- Healthy lupin food products</li> </ul>
<b>8. SOCIAL IMPACTS</b> <ul style="list-style-type: none"> <li>- Plant-based proteins such as lupins could be some competition for livestock farmers</li> <li>- A rest crop with low profits</li> <li>- No revenue model for initiative owners</li> </ul>		<b>9. SOCIAL BENEFITS</b> <ul style="list-style-type: none"> <li>- People belong to a community</li> <li>- Nice landscape with rich biodiversity</li> <li>- Communication around healthy food</li> <li>- Platform for farmers to meet and learn from colleagues</li> <li>- More farmers involved to support collective learning</li> <li>- More community members involved</li> <li>- Making lupin a rest crop with high profits</li> <li>- Revenue model for owners of initiative</li> </ul>		

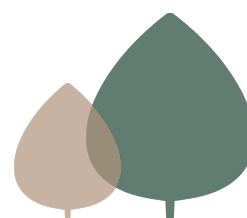
<b>7. SUPPLIERS &amp; OUTSOURCING</b> <ul style="list-style-type: none"> <li>- Lupin is transported from processing company to processing company</li> <li>- More activities around processing moving intern to initiative</li> </ul>	<b>5. PRODUCTION</b> <ul style="list-style-type: none"> <li>- Fossil-fuel based machinery for cultivation</li> <li>- Cultivation on 1-3 hectare</li> <li>- Cleaning, sorting and storing of lupins</li> <li>- Use solar panels</li> <li>- Scale up with farmers willing to cultivate 5-10 ha for efficiency</li> </ul> <b>6. MATERIALS</b> <ul style="list-style-type: none"> <li>- Glass jar and metal lid</li> <li>- Lupins</li> <li>- Water</li> <li>- Paper label</li> <li>- Salt</li> <li>- Canning for catering</li> <li>- Bigger jars</li> <li>- Paper bag with dry lupins</li> </ul>	<b>1. FUNCTIONAL VALUE</b> <ul style="list-style-type: none"> <li>- 100,000 jars of lupin are produced per year</li> <li>- 1 jar is 340 grams lupin, drained weight 190 grams</li> </ul>	<b>4. END OF LIFE</b> <ul style="list-style-type: none"> <li>- Glass is recyclable</li> <li>- Metal lid is recyclable (re-use costs too high)</li> <li>- Fewer end of life materials when paper bag is used</li> </ul> <b>3. DISTRIBUTION</b> <ul style="list-style-type: none"> <li>- Transport from farmer to central storage</li> <li>- Transport from central storage to processors</li> <li>- By centralizing processing with initiative, transport will be reduced</li> </ul>	<b>2. USE PHASE</b> <ul style="list-style-type: none"> <li>- Lupins consumed directly out of jar --&gt; water flows away</li> <li>- Baking lupins --&gt; energy</li> <li>- Use the water for meringue</li> <li>- Consumers could soak the dry lupins themselves, not sure if this leads to less energy</li> </ul>
<b>8. ENVIRONMENTAL IMPACTS</b> <ul style="list-style-type: none"> <li>- CO2 emissions of machinery and processing facilities</li> <li>- Water for lupin cultivation</li> <li>- Harmful substances created by producing metal and glass</li> <li>- Fossil fuel used for transportation from farms to central location</li> <li>- Fossil fuel used for transportation between processors</li> <li>- Producing paper when lupins are sold in paper bags</li> <li>- Energy costs of own processing machinery</li> <li>- Harmful substances from metal can production</li> </ul>		<b>9. ENVIRONMENTAL BENEFITS</b> <ul style="list-style-type: none"> <li>- Lupin crops fix nitrogen, less fertilizer is needed, also for subsequent crops</li> <li>- Insects could pollinate lupin crop flowers</li> <li>- Organic cultivation, no pesticides</li> <li>- Lupin crops improve soil carbon storage</li> <li>- Reduced fossil fuel use by centralising initiative's processing</li> <li>- Less energy used when lupins produced in bigger jars</li> <li>- Fossil fuel more efficiently used when farmers scale up acreage</li> </ul>		



**Box 5. Present and future thinking in the canvas:**

Time scale is an important dimension in the TLBMC design activity. If your initiative has not yet worked together, the canvas may be entirely future-oriented and visionary. However, if your initiative has already worked together, or are drawing on existing experience from participants, it may be useful to answer questions with both the present and future in mind. In the example provided, colour is used to help distinguish contents of the TLBMC that are current (black text), and ideas that are future-oriented (colour varies across canvases).

**Resources:** To help participants learn about different types of sustainable business models and reflect on different types of collaboration, we share a [Sustainable Business Model Guidebook](#). Additional information about business models for Living Labs is reviewed by the [European Network of Living Labs](#). For those interested in a business modelling canvas other than the TLBMC, we also point readers to Appendix III for an alternative activity.



### 3.2 SBM strategizing

**Who should be involved?** Coordinator(s) and initiative participants.

**What is the main activity?** Create a strategic roadmap for how to carry out your initiative's goals. This roadmap should include milestones, actionable steps, and responsibilities for actualizing the vision of the TLBMC. These steps are meant to help strategically outline and guide future activities of the initiative.

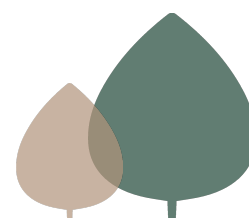
**Why?** Once the business model has been envisioned, having clear next steps about what needs to be done and who will do it is an important success factor. Much like in the rule-making activity (Stage 1.3), clearly defining roles, expectations, contributions, and activities can improve communication, avoid failure due to misunderstanding, and ensure participants are acting in accordance with the initiatives' agreements.

**How?** The strategic roadmap is created in a meeting where everyone discusses the vision of the initiative, identifies key goals that help get your initiative towards that vision, and then works backwards to identify the activities – what and how – to achieve those goals.<sup>11</sup> In short, what is our vision and how do we get there?<sup>12,13</sup>

Guiding instructions and questions for completing the strategic roadmap include:

- *Identify goals:* Identify at least three big goals for your initiative to work towards. These goals should contribute to your initiative's vision and be accomplishable within the next 1-2 years. Your vision may have emerged throughout the process of previous activities, but if you do not feel like your group has a vision, consider a visioning reflection activity described in Appendix III.
- *Specify actionable steps:* Based on the goals of the initiative, reflect on:
  - What are the key activities that we need to have on the path to actualizing those goals?
  - Explain these activities according to 'SMART' guidelines: Specific (concrete and understandable), Measurable (there is a metric for success that everyone understands), Attainable (can be accomplished with the resources at hand), Relevant (contributes to a higher objective), and Timebound (has deadlines).
- *Determine roles and resources:* Last, determine who is responsible for these different actions and what resources are needed to carry out the tasks (time, financial, labour, research, coordinative).

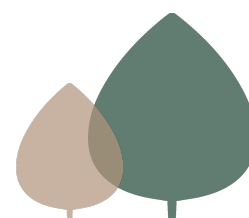
**Outcome:** These discussions should result in an SBM Roadmap (Portfolio Output 6) that specifies goals, activities for achieving them, who is responsible and committing what resources, and expected timelines for completion.



**Example:**

Goal 1. Expand number of participating farmers through lupine field day and recruitment workshop					
Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
Identify all small- medium sized (up to 50 ha) grain and mixed farming producers in the province	Farmer list with location and main contact information	Organic Label Farm	Provincial authority	Time of both leader and partner	June 2025
Create one-page business model summary for distribution	100 printed summaries of research	Wageningen University	Dutch Grain Farm, Diversity Farm, Campaign for Plant Protein	- Time: WUR - Review and editing: Partners - Printing costs: Campaign for Plant Protein	June 2025
Prepare half-day workshop agenda (presentations and activities)	Completed agenda with confirmed presenters	Organic Label Farm	All initiative participants	Time of leader and partners	August 2025
Invite contact list and hold half day farm workshop on lupine production and initiative's business model	Host 20+ local farmers to learn about our initiative's business model, tour the farm, and sign up to our listserv	Diversity Farm	All initiative participants	- Food and transport subsidy: Provincial authority - Presentations: Stone Mill, WUR, Dutch Grain Farm - Location hosting and farm tour: Diversity Farm	October 2025
Maintain contact and follow-up with potential members to recruit new participants	Get 4+ farmers to commit to growing 3+ hectares to lupin	Organic Label Farm	None	Time of follow-up contact	February 2025

**Resources:** More information about roadmapping can be found in [Roadmunk](#) resources. An example of defining roles and resources can be found in a video on 'governance models' for Living Labs is reviewed by the [European Network of Living Labs](#). For those interested in reading more about the process of 'backcasting' – looking forward and defining steps towards and desired future – The Natural Step Canada provides a brief [summary of the backcasting process](#).



## Stage 4. Reflecting: Assessment & revision

### 4.1 Assessment

**Who should be involved?** Primarily coordinators

**What is the main activity?** Regular assessments (approximately every 6 months) of key performance indicators, the group's process, and the SBM roadmap.

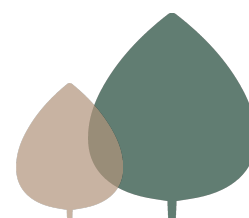
**Why?** Business model innovation is based on experimentation, which involves reflecting on successes and failures and adapting strategies. Incorporating performance assessments allows initiatives to ensure ongoing relevance and provides opportunities for improvements.

**How?** Assessment questions are completed to help the coordinator (and others) reflect on their initiative's development. This includes reflection on the group's overall progress and process, use of the protocol, and progress towards goals.

Possible assessment questions may include:

- *Key Performance Indicators:* To what extent do you agree with the following about your initiative's group of participants:
  - We meet and/or communicate regularly about our project.
  - We have a clear understanding of the roles in our group.
  - We have a shared understanding of the problem/goal motivating our project.
  - We have a clear sense of how our project fits into the social, environmental, and economic system that we're situated in.
  - We have identified the value we want to create through our project.
  - We have a clear idea of how we are going to create and deliver this value.
- *Group process:* To what extent do you agree with the following about your initiative's group of participants. Group members...
  - Are willing to share their ideas readily.
  - Listen to what other participants have to say.
  - Feel like they can rely on one another to honour their commitments.
  - Have an equal voice in making decisions for the initiative.
  - Take ownership over their responsibilities.
  - Are proactive in contributing to new ideas.
- *Strategic roadmap progress:*
  - What progress have you made for each of the goals in your roadmap?
  - What has helped you make progress?
  - What has been a barrier to making progress?
  - What have you learned and/or changed?

**Outcome:** Coordinators should complete a progress report (Portfolio Output 7) at regular intervals throughout their project.





## 4.2 Portfolio revision

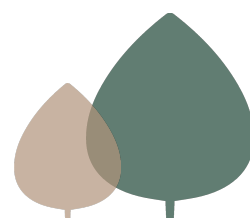
**Who should be involved?** Any participants relevant to the activity being revised.

**What is the main activity?** Revising parts of the portfolio based on the initiative's needs.

**Why?** As initiatives experiment with different activities, they will inevitably evolve. At different periods of this evolution it is important to check that the organisational structure and strategy align with how the initiative has changed. Keeping up with these changes will help keep initiatives on track to meet their goals, realise new goals, and confront and address internal and external challenges they encounter.

**How?** To check in on this change, initiatives can revisit different activities in this protocol and revise portfolio outputs accordingly. Reflecting on the progress reports and having discussions throughout the course of the initiative's activities can help point to where revision would be most useful.

**Outcome:** Updated portfolio outputs, based on the individual needs and changes of the initiative.



## 5. Methods and references

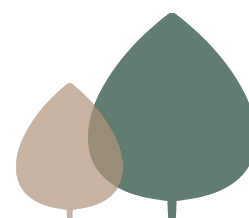
**Methods:** The initial draft of this protocol was based on extensive literature review and discussion among work package members, who draw on their expertise researching business, management, and sustainability contexts. While there are a wide array of tools for sustainable business model development,<sup>14</sup> we have used the following key resources as guides: Nations training on governance models,<sup>13</sup> academic research on participatory systems mapping,<sup>8</sup> and tools for sustainable business model creation.<sup>10,15</sup>

An overview of this protocol was presented to all coordinators (February and March 2024) of the InBestSoil project to gauge the stage of current cases and the usefulness of different activities. We also received detailed feedback from Linda Calciolari of Ekoboerderij de Linge Hof, a case study for InBestSoil, which helped us refine the protocol to the needs of coordinators.

**Limitations:** We want to note that no protocol can be one-size-fits-all. While we aimed to make a flexible protocol that is general enough to capture the needs of diverse groups and specific enough to guide action, we know this protocol will not work for every initiative. We welcome feedback from any protocol users, particularly coordinators or other researchers using these tools, who would like to help us continue to refine these tools.

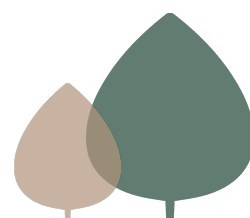
### References:

1. Geissdoerfer, M., Vladimirova, D. & Evans, S. Sustainable business model innovation: A review. *Journal of Cleaner Production* 198, 401–416 (2018).
2. Teece, D. J. Business Models, Business Strategy and Innovation. *Long Range Planning* 43, 172–194 (2010).
3. Zott, C. & Amit, R. Business Model Design: An Activity System Perspective. *Long Range Planning* 43, 216–226 (2010).
4. Osterwalder, A. & Pigneur, Y. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. (Wiley, 2010).
5. Breuer, H., Fichter, K., Lüdeke-Freund, F. & Tiemann, I. Sustainability-oriented business model development: principles, criteria and tools. *Int. J. Entrepreneurial Venturing* (2018).
6. Otto, S. C. & Kaeufer, K. In front of the blank canvas: sensing emerging futures. *Journal of Business Strategy* 31, 21–29 (2010).
7. USAID. Local Systems Practice User Guide. <https://sites.google.com/view/lsp-users-guide/home?authuser=0> (2019).
8. Dentoni, D. *et al.* Systems Thinking, Mapping and Change in Food and Agriculture. *Bio-based and Applied Economics* 11, 277–301 (2022).
9. Berthet, E. T. & Hickey, G. M. Organizing collective innovation in support of sustainable agro-ecosystems: The role of network management. *Agricultural Systems* 44, 44–54 (2018).
10. Joyce, A. & Paquin, R. L. The triple layered business model canvas: A tool to design more sustainable business models. *Journal of Cleaner Production* 135, 1474–1486 (2016).
11. Backcasting. *The Natural Step Canada* <https://www.naturalstep.ca/backcasting> (2008).
12. Köves, A. & Király, G. Inner drives: Is the future of marketing communications more sustainable when using backcasting? *Futures* 130, 102755 (2021).
13. Couture, I., Cavallo, D., Grbović, V. & Stojčić, I. Webinar: Governance and Business Models for setting up a Living Lab. (2023) doi:10.5281/zenodo.8096848.
14. Silvestre, W. J., Fonseca, A. & Morioka, S. N. Strategic sustainability integration: Merging management tools to support business model decisions. *Business Strategy and the Environment* 31, 2052–2067 (2022).
15. Bocken, N. M. P., Rana, P. & Short, S. W. Value mapping for sustainable business thinking. *Journal of Industrial and Production Engineering* 32, 67–81 (2015).



## Appendix I: Sustainable Business Model Portfolio Template

The following pages of this appendix provide templates for different activities in the SBM design protocol. To help participants make use of these templates, we also provide the templates in several formats (Excel and PDF), with and without prompts, available in this [open-source repository](#).

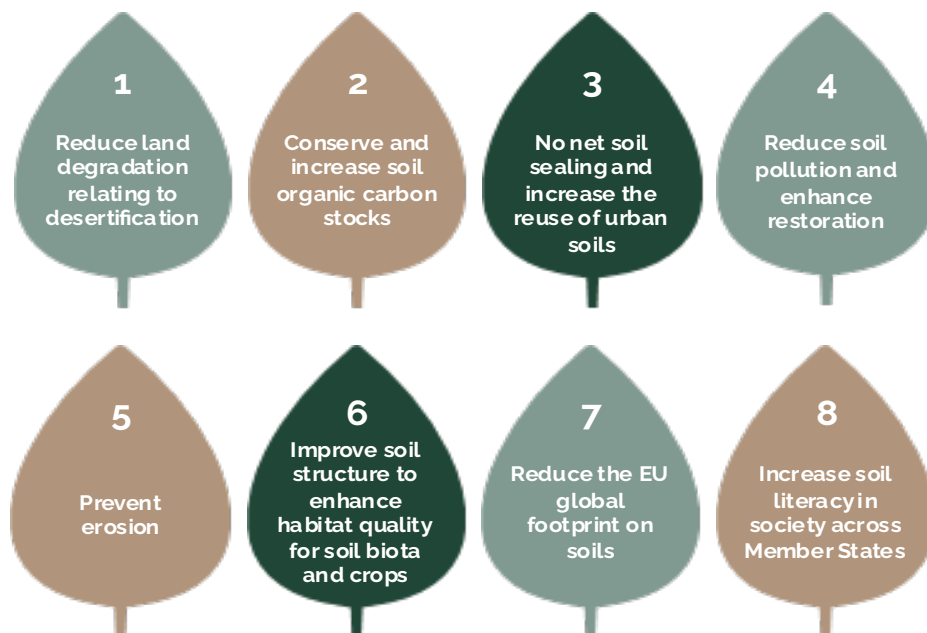


## 1. Problem statement

### Instructions:

In the space below, please provide a preliminary explanation of the problem(s) that bring your initiative together. This explanation should include soil health challenges, as well as any other core issues that motivates this project.

Completion date:	Participants involved:
<p><i>Describe problem here</i></p>	



InBestSoil's representation of the EU Soil Mission objectives, from InBestSoil D2.1

## 2. Stakeholder map

### Instructions:

First, identify all of the stakeholders relevant to your initiative. Consider each group listed, descriptions of which are below. Where necessary, insert additional rows. Please put an asterisk (\*) next to stakeholders that are interested/have agreed to participate in the initiative.

Next, please answer the questions associated with each stakeholder, granting a value of 0, 1 or 2 to each stakeholder category. The questions you will encounter and the meaning of values are the following:

*How much (economic, social, environmental) influence does this stakeholder exert on the activities of the LL/LH? (Influence)*

0: No influence  
1: Some influence  
2: Strong influence  
NA: Don't know or not applicable

*How affected is this stakeholder by the activities of the LL/LH? (Interest)*

0: Not affected  
1: Somewhat affected  
2: Very affected  
NA: Don't know

The definitions of influence and interest are the following:

- Influence: the relevance of the stakeholder in the project and how stakeholder's actions and/or behaviour can change the course of action of the initiative. For example, strong influence = a stakeholder who could significantly enable or limit the initiative's activities
- Interest: potential willingness of the stakeholder to be informed and participate in the activities, based on how they are affected by the activities of the initiative. For example, very affected = stakeholder who has a vested economic interest in the land being managed.

### Descriptions of stakeholder groups:

*Academia /Research organisation:* Institutions primarily engaged in research, education, and knowledge dissemination. This includes universities, research institutes, and other educational organizations dedicated to advancing knowledge and understanding in various fields.

*Business company:* This category encompasses companies across all sectors and industries, including small and medium-sized enterprises (SMEs),

*Land Manager:* Individuals or organizations with authority or responsibility for managing land resources. This includes landowners who have the capacity and legal rights to make decisions regarding land use, conservation, and development.

*Farmer / Breeder:* Individuals or entities engaged in agricultural activities such as cultivation, production, and breeding of crops or livestock. Farmers and breeders play a crucial role in food production and agricultural sustainability.

*Public Bodies:* Governmental entities or agencies responsible for public administration and governance at various levels (local, regional, national).

*Civil Society Organisation:* Non-governmental entities representing the interests of citizens and communities. This includes local community groups, non-governmental organizations (NGOs), and public and private not-for-profit (NFP) organizations.

## 2. Stakeholder map

Completion date:

Participants involved:

Stakeholder category	Stakeholder name	How much (economic, social, environmental) influence does this stakeholder exert on the LL/LH activities?			How affected is this stakeholder by the activities of the LL/LH?	TOTAL
		ECONOMIC	SOCIAL	ENVIRON.		
Academia /Research organisation	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
Business company	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
Land Manager	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
Farmer / Breeder	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
Public Bodies	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
Civil Society Organisation	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>
	<i>Insert name</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Insert 0,1,2 or NA here</i>	<i>Sum row here</i>



### 3. Group guidelines

#### Instructions:

In the spaces below, please respond to the prompting questions in italics. The final section is an open space for the initiative to include any other guidelines or collective thinking that may come from this discussion.

Completion date:	Participants involved:
<b>Group purpose and goals:</b> <i>What motivates you to be involved in this initiative?</i> <i>What are we trying to accomplish as a group?</i>	
<p><i>Please respond here</i></p>	
<b>Meeting and communication plan:</b> <i>When and how often will we meet? What communication channels do you find most conducive to open and transparent discussions? How can we encourage a culture of open communication where everyone feels comfortable sharing their thoughts and concerns?</i>	
<p><i>Please respond here</i></p>	

**Roles and responsibilities:**

*Who sets the agenda for our efforts? Leading and attending meetings? Taking up tasks? What specific tasks and responsibilities do you feel aligned with based on your skills and expertise? What mechanisms can we put in place to hold each other accountable for our assigned tasks?*

Participant	Role
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>
<i>Insert participant name</i>	<i>Specify participant role in initiative</i>

**Decision-making processes:**

*What decision-making processes do you find most effective for our group dynamics? (e.g. decisions are made through consensus, majority vote, or by designated coordinator, etc.) Are there specific types of decisions that should follow a different process, and how should these be identified?*

*Please respond here*

**Other group-related discussion points:**

## 4. Systems maps

### Instructions:

In the sections below, please insert the visualisations created through the systems mapping activity. This activity includes the creation of two visualisations, causal loop diagrams and actor network maps. Descriptions of these visualisations, along with guiding questions, are explained below.

Causal loop diagrams	Actor network maps
Causal loop diagrams are a snapshot of relationships that make up the parts of a system. Variables in a causal loop diagram can include phenomena, concepts, and processes. Relationships between variables are generally thought of as positive or negative forces influencing one another. These relationships should be represented by arrows connecting variables with either positive (+) or negative (-) signs attached.	Actor network maps bring in actors and agency to reflect on the causal loop diagrams, helping participants envision how to address challenges. Variables are actors (people, organisations, or sectors) relevant to the issues mapped in the causal loop diagrams. Relationships between actors the value they exchange or create. Value includes tangible things like resources and intangible things like knowledge or reputation.

#### *Guiding questions for sense-making:*

Begin with the causal loop diagram and reflect on: What are the specific issues that constitute our problem? And how are these specific issues causally related to each other?

After discussing these questions and visualising the answers, participants move to the actor network map and reflect on: Who are the specific actors that are somehow related to our problem, either because they are affected by it, or because they can influence it? How are these actors connected (or perhaps disconnected) to each other in a social system? And which resources do they share (or perhaps do not share) through their relationships? Discuss these questions and visualise them on a second map.

#### *Guiding questions for envisioning solutions:*

After drafting these two graphics, participants should then move to envision interventions for each. First, return to the causal loop diagram: What are the specific issues where we, as participants, could intervene? Which activities or interventions could we envision to address our problem?

Then with the actor network map: How can we, as participants, contribute to reconfiguring the social system in ways that address our problem? Specifically, how can we build new relationships (or break old relationships) among actors, and with which resources, to do so? (We suggest indicating these interventions on the graphs with their own colour)

#### 4. Systems maps: Causal loop diagram

Completion date:

Participants involved:

*Please insert visualisation here*

#### 4. Systems maps: Actor network map

Completion date:

Participants involved:

*Please insert visualisation here*

## 6. Triple Layer Business Model Canvas

### Instructions:

#### *Business model reflection:*

Begin with an "outside-in" reflection, considering various examples of sustainable business models that participants may know of. What business model examples do you think of as good models of sustainable businesses or organisations? Of these different approaches, what do you find interesting or appealing? What is not interesting or appealing?

Next, turn to an "inside-out" reflection, encouraging participants to understand what is currently being done and what resources are available within their own networks (if relevant). Which parts are more or less sustainable?

#### *Completing the canvas:*

After these reflections, walk through the questions in each "layer" on the TLBMC. This is an iterative process with each canvas potentially needing revisited as new ideas emerge in each layer.

- **Economic canvas:** Start by reflecting on what economic value this initiative brings. What problems are you solving (pains) or needs are you fulfilling (gains)? Then consider who this value is for (i.e. your customers/funders)? And how do you reach and maintain relationships with them? Next, what are the key activities and resources you need to deliver that value? Who can help carry out these activities? Last, reflect on what this means for the overall cost structure and revenue streams for your initiative.
- **Social canvas:** Switch mindsets now to reflect on what social value this initiative brings. Then consider who benefits and how, from your customers to wider society. Next, what are the social values in the operations of your initiative? What social value is created internally and within your communities? Last, reflect on what this means for the overall social costs and benefits of your initiative.
- **Environmental canvas:** Finally, switch mindsets again now to reflect on what environmental value this initiative brings. This canvas is based on life-cycle analyses of your activities, so we recommend consulting a life-cycle assessment expert to support the creation of this canvas. For instance, think about how your initiative's product/service/activity is used, distributed, and disposed of. What are the impacts of those stages? Next, consider the inputs that go into production or carrying out activities: how do materials and supply chains impact the environment? Last, reflect on what this means for the overall environmental costs and benefits of your initiative.

Completion date:	Participants involved:
------------------	------------------------



## 7. KEY PARTNERS

WHO WITHIN THE INITIATIVE IS GOING TO CARRY OUT THOSE KEY ACTIVITIES?

WHAT ARE THEY GOING TO DO, HOW, AND WHEN?

WHO OUTSIDE THE INITIATIVE DO YOU NEED TO SUPPORT YOUR ACTIVITIES? (e.g. suppliers, investors, joint ventures)

HOW ARE YOU GOING TO ENSURE A GOOD WORKING RELATIONSHIP WITH EXTERNAL PARTNERS?

## 5. KEY ACTIVITIES

WHAT ARE THE MOST IMPORTANT THINGS YOUR INITIATIVE NEEDS TO DO TO DELIVER YOUR VALUE PROPOSITION?

## 6. KEY RESOURCES

WHAT DO YOU NEED TO CREATE ECONOMIC VALUE? (e.g. Finance/capital, Machinery/equipment, Knowledge)

## 1. ECONOMIC VALUE PROPOSITION

WHAT ECONOMIC VALUE DO YOU CREATE?

WHAT IS THE SERVICE OR PRODUCT? (i.e. the initiative's main activities)

### PAINS

What potential economic problems are you solving?

### GAINS

What potential economic needs are you fulfilling?

## 4. CUSTOMER RELATIONSHIPS

HOW TO GET, KEEP AND/OR GROW CUSTOMERS?

## 3. CHANNELS

HOW DOES THE SERVICE/PRODUCT GET TO THE CUSTOMER?

## 2. CUSTOMER IDENTIFICATION

WHO ARE MY "CUSTOMERS"? (i.e. standard customers, or those willing to fund the proposed service/product)

WHY WOULD THEY SUPPORT YOUR INITIATIVE?

## 8. COST STRUCTURE

WHAT ARE THE MOST IMPORTANT COSTS & THE MOST EXPENSIVE RESOURCES NEEDED TO RUN THE BUSINESS?

## 9. REVENUE STREAMS

HOW DO YOU ACTUALLY MAKE MONEY FROM YOUR SERVICE OR PRODUCT?  
WHAT IS THE CUSTOMER ACTUALLY PAYING FOR?

**7. STAKEHOLDERS/LOCAL COMMUNITIES**

HOW DOES YOUR INITIATIVE'S MISSION BENEFIT STAKEHOLDERS? (E.g.. Direct fair trade pricing, long term investment in people/skills/training/talent development, enhance wellbeing, transparent sourcing)

**5. GOVERNANCE**

WHO IS IN CONTROL OF THE INITIATIVE? IS THERE FAIR REPRESENTATION?

**6. EMPLOYEES/INITIATIVE PARTNERS**

WHO WORKS FOR YOU OR WHO IS INVOLVED? HOW ARE YOU CREATING SOCIAL VALUE INTERNALLY?

**1. SOCIAL VALUE PROPOSITION**

WHAT SOCIAL VALUE DO YOU CREATE?

For this canvas, consider the SOCIETY (and its many facets) as your customer persona & review the PAINS & GAINS questions.

**4. SOCIETAL CULTURE**

WHAT LOCAL/NATIONAL/GLOBAL MESSAGES DOES YOUR INITIATIVE SUPPORT?

**3. SCALE OF OUTREACH**

HOW DOES YOUR BUSINESS IMPACT SOCIETY MORE BROADLY?

WHAT IS THE REACH OF YOUR IMPACT?

**2. END-USER**

HOW DOES YOUR BUSINESS OFFERING MEET THE WIDER CONTEXT OF YOUR CONSUMERS' NEEDS? (E.g. Impact on quality of life, convenience, well being, health, community, happiness)

**8. SOCIAL IMPACTS**

WHAT HARMS MIGHT YOUR INITIATIVE HAVE ON SOCIETY & STAKEHOLDERS?

**9. SOCIAL BENEFITS**

HOW DOES YOUR INITIATIVE POSITIVELY AFFECT SOCIETY & STAKEHOLDERS?

<div><div>7. SUPPLIERS &amp; OUTSOURCING</div><div>WHAT ARE THE WIDER IMPACTS CREATED BY THE SUPPLIERS AND STAKEHOLDERS AROUND YOUR BUSINESS? (e.g. Supply chains, external materials, external production, water consumption, energy consumption)</div><div>WHAT MEASURES ARE IN PLACE TO AUDIT/ ACCESS THESE IMPACTS?</div></div>	<div><div>5. PRODUCTION</div><div>HOW DO YOUR CORE PRODUCTION PROCESSES IMPACT THE ENVIRONMENT?</div></div> <div><div>6. MATERIALS</div><div>WHAT INPUTS DO YOU NEED TO MAKE THE INITIATIVE WORK?</div></div>	<div><div>1. FUNCTIONAL VALUE</div><div>WHAT IS THE FUNCTIONAL VALUE OF YOUR PRODUCT/SERVICE? WHAT UNIT IS IN FOCUS?</div><div>WHAT ARE THE ENVIRONMENTAL IMPACTS THAT YOU CAN RECORD &amp; MEASURE?</div><div>Consider the ENVIRONMENT (and its many facets) as your customer &amp; review the PAINS &amp; GAINS questions.</div></div>	<div><div>4. END OF LIFE</div><div>WHAT ARE THE IMPACTS AFTER INITIATIVE'S ACTIVITIES HAVE ENDED?</div><div>WHAT IS THE PLAN FOR THE END OF THE PRODUCT/SERVICE?</div></div> <div><div>3. DISTRIBUTION</div><div>HOW DOES THE SERVICE/PRODUCT GET TO THE CUSTOMER? WHAT IMPACTS DOES THIS HAVE?</div></div>	<div><div>2. USE PHASE</div><div>HOW IS YOUR PRODUCT OR SERVICE USED? WHAT IS THE IMPACT OF THIS USE ON ENVIRONMENT? (OR, WHAT ARE THE IMPACTS O YOUR CORE ACTIVITIES?)</div></div>
<div><div>8. ENVIRONMENTAL IMPACTS</div><div>WHAT ARE THE NEGATIVE ENVIRONMENTAL IMPACTS OF YOUR INITIATIVE?</div></div>		<div><div>9. ENVIRONMENTAL BENEFITS</div><div>HOW DOES YOUR INITIATIVE CREATE LESS HARM - "ECO-EFFICIENT"?</div><div>HOW DOES YOUR INITIATIVE ASSIST REGENERATION - "ECO-EFFECTIVE"</div></div>		

## 7. Sustainable Business Model Roadmap

### Instructions:

- *Identify goals:* Begin by identifying at least three big goals for your initiative to work towards. These goals should contribute to your initiative's vision and be accomplishable within the next 1-2 years. Write these goals at the top of each page in this section.
- *Specify actionable steps:* Based on the goals, reflect on: What are the key activities that we need to have on the path to actualizing those goals? Explain these activities according to 'SMART' guidelines: Specific (concrete and understandable), Measurable (there is a metric for success that everyone understands), Attainable (can be accomplished with the resources at hand), Relevant (contributes to higher objective), and Timebound (has deadlines). Specify these activities, outcomes, and timeline for each goal in the worksheet.
- *Determine roles and resources:* Last, determine who is responsible for these different actions and what resources are needed to carry out the tasks (time, financial, labour, research, coordinative). Specify these roles and resources for each activity.

Completion date:	Participants involved:
------------------	------------------------

**Goal 1.** *Enter goal*

Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>

Additional notes:

**Goal 2.** *Enter goal*

Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>

Additional notes:



**Goal 3.** *Enter goal*

Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
Additional notes:					

**Goal 4.** *Enter goal*

Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>

Additional notes:

**Goal 5.** *Enter goal*

Activity	Outcome/Indication of achievement	Leader	Partners	Resources committed	Target completion date
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
<i>Explain activity needed to achieve goal</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>	<i>Complete with activity details</i>
Additional notes:					

## 8. Progress Report

### Instructions:

Please complete section A and B by marking a response to every question (i.e. every row) with an "X" under the column you agree with. For section C, please write in your responses to complete the table for each of your initiative's goals.

Completion date:	Participants involved:		
<b>A. Key indicators:</b> <i>To what extent do you agree with the following statements about your initiative's group of participants?</i>			
	1 (Not at all)	2 (Somewhat)	3 (Certainly)
We meet and/or communicate regularly about our project.			
We have a clear understanding of roles in our group.			
We have a shared understanding of the problem or goal motivating our project (e.g. We want to increase the carbon content of the soils in our LL).			
We have a clear sense of how our project fits into the social, environmental, and economic system that we're situated in (e.g. Our work increases soil carbon storage but also increases groundwater pollution which negatively affects downstream land users).			
We have identified the value (economic, environmental, and social) we want to create through our project (e.g. Restore the soil by bringing a new product to market that is managed cooperatively).			
We have a clear idea of how we are going to create and deliver this value (i.e. What partners and resources we need; Who we serve; What we receive in return for creating and distributing this value).			

**B. Group process:**

*To what extent do you agree with the following statements about your initiative's group of participants?*

Group members...	1 (Not at all)	2 (Somewhat)	3 (Certainly)
Are willing to share their ideas readily			
Listen to what other participants have to say			
Feel like they can rely on one another to honor their commitments			
Have an equal voice in making decisions for the initiative			
Take ownership over their responsibilities			
Are proactive in contributing to new ideas			

**C. Goal progress report**

*In the sections below, please enter information regarding your initiative's goals and answer the questions for each.*

Goal (Specify the goal)	What progress have you made on this goal (e.g. Completed, Ongoing, Not yet started, Unsuccessful)? Please explain for each activity.
What has helped you make progress?	
What has been a barrier?	
What have you learned?	

<b>Goal</b> (Specify the goal)	What progress have you made on this goal (e.g. Completed, Ongoing, Not yet started, Unsuccessful)? Please explain for each activity.
What has helped you make progress?	
What has been a barrier?	
What have you learned and/or changed?	
<b>Goal</b> (Specify the goal)	What progress have you made on this goal (e.g. Completed, Ongoing, Not yet started, Unsuccessful)? Please explain for each activity.
What has helped you make progress?	
What has been a barrier?	
What have you learned and/or changed?	



<b>Goal</b> (Specify the goal)	What progress have you made on this goal (e.g. Completed, Ongoing, Not yet started, Unsuccessful)? Please explain for each activity.
What has helped you make progress?	
What has been a barrier?	
What have you learned and/or changed?	
<b>Goal</b> (Specify the goal)	What progress have you made on this goal (e.g. Completed, Ongoing, Not yet started, Unsuccessful)? Please explain for each activity.
What has helped you make progress?	
What has been a barrier?	
What have you learned and/or changed?	

## Protocol assessment

### Instructions:

Please complete the following section by marking a response to every question (i.e. every row) with an "X" under the column you agree with.

Completion date:	Participants involved:
------------------	------------------------

<i>How <b>useful</b> have you found the following activities?</i>	1 (Not at all)	2 (Somewhat)	3 (Very)
Stakeholder mapping			
Group rule-making			
Causal loop diagram			
Actor network map			
Triple Layer Business Model Canvas			
SBM Roadmap			

What else has your initiative done (or would like to do) to help develop your project and sustainable business model that wasn't covered in the protocol?

## Appendix II. Sustainable Business Model Guidebook

This guidebook serves as a resource for initiatives to consult throughout the stages of the Sustainable Business Model (SBM) design protocol, particularly when creating their Triple Layer Business Model Canvas (TLBMC). The goals of this guidebook are to share examples of SBMs in the context of soil and discuss different approaches to collaboration.

### Sustainable Business Models for soil: Examples from around Europe

When envisioning what kinds of business models an initiative wants to pursue, it can first be helpful to get a sense of what types of models exist. In this section, we provide examples of different SBMs using examples from ten soil-related initiatives across Europe (Tables A1-3).

These initiatives are among the 100+ identified by Soil Mission Support and PREPSOIL as part of the EU Soil Mission. The selection of cases in this guidebook is meant to represent a variety of initiatives, distinguished by different geographic contexts, types of participants, scale of initiative, and sustainable business model approaches. For those interested in examples beyond those identified here, please explore the [PREPSOIL Living Lab and Lighthouse Map](#). Based on our desk research of these cases, we present the initiatives grouped into different business model approaches, from those that focus more on technological efficiency to those that include social values and organisational innovations. For each case we highlight different elements of the initiative as well as different types of value they create – economic, social, and environmental.<sup>4</sup>

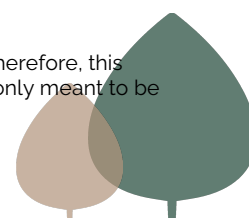
#### *SBMs for technological efficiency*

The first selection of soil SBM examples are initiatives that generally focus on technological efficiency, meaning that they tend to focus on optimising, replacing, or transforming resources to reduce waste and minimise impact. For example, growers might aim to replace synthetic fertiliser with manure produced and processed on farm or use precision data collection tools to identify where fertiliser is needed and reduce their total application. We summarise each initiative in this group in text and Table 1.

**Sward Improver.** The "Sward Improver" initiative was a fixed-term crop-production lighthouse in the UK, experimenting with biodiesel co-product (BCP, waste from biodiesel fuel production) as a soil amendment for improving the production of nitrogen-fixing crops. The research interest of this lighthouse was to close resource loops by using a biodiesel waste product and substituting inputs with a renewable soil amendment. This research was led by a land management consultancy, in collaboration with a national charity and funded by a second national charity.

**Mulching innovation.** The "Mulching Innovation" initiative was a fixed-term crop-production lighthouse in Germany, developing machinery ("MulchTec Planter") to help make planting crops in mulched soil more efficient. The focal practice, mulching, is

<sup>4</sup> The information about these cases is gathered only from what is available on websites and reports. Therefore, this information is not fully representative of each case and readers should know that these examples are only meant to be illustrative of different approaches.



ground cover that can stabilise soil and reduce weed pressure, substituting for finite inputs like herbicides. The focal innovation, the MulchTec Planter, helps improve labour efficiency of planting in mulched soils. University researchers and farmers primarily worked together to develop this tool with the help of EU Rural Development funding.

**Phosphate fertiliser optimization:** The "Increasing the viability of sown biodiverse pastures through optimization of phosphate fertilisation" initiative was a fixed-term crop and animal production living lab in Portugal, investigating how precision agriculture technologies can be used to reduce inputs and improve yields. The key interest of this living lab was in maximising on-farm efficiency through new technologies. They leveraged multi-site research to test and understand precision agriculture technologies using a living lab format. Small and medium enterprises (SMEs) and farmers primarily worked together to carry out this research with the help of EU Rural Development funding.

**Farm Zero C:** The "Farm Zero C" initiative is a living lab for animal production based in Ireland, aimed at carbon neutral livestock farming. Carbon neutrality is achieved through a combination of technological innovations and adopting environmental stewardship behaviour, including data-driven life-cycle analyses, sward diversification, replacement of energy sources with renewables, and building up ecosystems to broaden on farm diversity. This work is carried out in a living lab format, led by food production companies and sustainability organisations, in partnership with universities, research institutes, and other firms.

Table A1. Soil initiatives that focus on technological efficiency				
Initiative	Economic value	Social value	Environmental value	Participants
<u>Sward Improver</u> (UK, 2019-2020)	Product development: Trialling use of biodiesel waste by-product as new input		Closing resource loops by using a waste by-product as soil amendment	Lead: <u>CLM</u> (UK, private) Partner: <u>Royal Horticultural Society</u> (UK, organisation) Funder: <u>Innovative Farmers</u> (UK, organisation)
<u>Mulching innovation</u> (Germany, 2020-2023)	Product development: Mulch planting machine ("Mulchtec Planter")	Decrease labour intensity for mulching	Improving humus formation and decrease pesticide use	Lead: <u>Justus-Liebig Universität Gießen</u> (DE, university) Partners: <u>Ackerlei Birkenhof KG</u> (farmerholder); <u>Naturland</u> (organization); <u>Bioland Sonnehof</u> (farmerholder); <u>Ines Reinisch Design&amp;Film</u> (private); Jürgen Scheld (farmerholder); Pappelhof, Wollinski & Preuß gbR (farmerholder); Philipp Fay (farmerholder); <u>live2give gGmbH</u> (farmerholder); <u>Ökomodellregion Lahn-Dill-Gießen</u> (DE, public) Funder: EU Rural Development Programme: <u>EIP-AGRI Operational Groups</u> (now <u>EU CAP Network</u> ) €400,000
<u>Increasing the viability of sown biodiverse pastures through optimization of phosphate fertilisation</u> (Portugal, 2017-2021)	Efficiency: Using precision technology to reduce inputs costs and increase productivity		Optimising phosphate fertilisation to reduce inputs	Lead: <u>Terraprima</u> (PT, SME) Partners: <u>Associação dos Criadores de Bovinos da Raca</u> (PT, trade association); <u>Fundação Eugénio De Almeida</u> (PT, Foundation); <u>Herdade Dos Grous - Agricultura E Pecuária LDA</u> (PT, SME); <u>Instituto Superior De Agronomia</u> (PT, university); <u>Pedro Sacadura Teixeira Cabral Duarte Da</u>

				Silveira (PT, farmholder); Sociedade Agricola Herdade Dos Padres, S.A. (PT, SME); Tapada Dos Numeros Sociedade Agricola LDA (PT, SME); <u>Universidade De Évora</u> (PT, university); Z E A - Sociedade Agricola Unipessoal, LDA (PT, SME) Funder: EU Rural Development Programme: <u>EIP-AGRI Operational Groups</u> (now <u>EU CAP Network</u> ) €503.033
<u>Farm Zero C</u> (Ireland)	Efficiency: Reducing costs by transitioning to renewable energy sources, minimising inputs and improving yields		- Carbon capture through species diversification - Replacing on-farm energy use with renewable sources - Reducing synthetic inputs	Leads: <u>biOrbic</u> (IR, research institute) and <u>Carbery</u> (IR, private) at <u>Shinagh Farm</u> Partners: <u>University College Dublin</u> (IR, university); <u>Wageningen UR</u> (NL, university); <u>Vista Milk</u> (IR, research institute), <u>Munster Technological University</u> (DE, university); <u>Teagasc</u> (IR, public); <u>Trinity College Dublin</u> (IR, university); <u>Grassa</u> (NL, private)

### *SBMs creating value for nature and society*

The next grouping of initiatives build on technological innovations for environmental improvement by adding a dimension of intentional social value creation. In other words, these initiatives have a net positive impact on nature *and* society through efforts like education, network-building, and social resilience. For example, initiatives may focus on consumer behaviour change through educational courses in regenerative agriculture, or businesses may act as stewards through initiatives like reforestation for improving environmental and community health. We summarise each initiative in this group first in text and Table 2.

**Dige'O methane digester:** The "Dige'O methane digester" initiative was an educational lighthouse in France, trialling the development and application of different digestates. By using waste products to feed the digester and trialling the impact of different digestates on soil health, this lighthouse focused on closing resource loops. Beyond that, however, the digester belongs to an agricultural high school, and so the experimentation has been a central part of their educational program, partnering with universities and institutes across the country to scale out digestate research (e.g. 12th International Symposium of Earthworm Ecology).

**Agrilombricoltura Terra Viva:** The "Agrilombricoltura Terra Viva" (Living Earth Agriculture) initiative is a lighthouse of innovative input suppliers in Italy, developing vermicompost for sale. Particularly, the initiative is a cooperative of four dairy farmers who pool their manure from their cattle to supply the vermicompost production, closing a resource loop through the process of a cooperative, shared ownership model. Led by these four dairy farmers, this initiative has created partnerships with other cooperatives in their region, as well as an alternative energy consultancy.

**ÖMKi Research Network:** The "ÖMKi Research Network" comprises organic farmers from around Hungary who collectively experiment and learn from one another. Their focus is on environmental innovations like remote sensing, variety testing, and cover cropping that help maximise efficiency and substitute in renewables. Furthermore, their

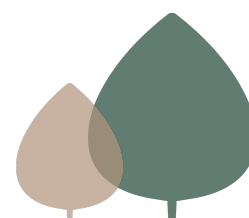


organisation as a network also builds important social capital and new ways of sharing knowledge, supporting new forms of social innovation. This network is organised as an educational non-profit, led by a Hungarian research institute and supported by EU funding.

**Climate adaptation knowledge portal:** The "Climate Adaptation Knowledge Portal" is a government-sponsored living lab for increasing resilience of urban spaces from flooding and other challenges of climate change. The focus is not only on creating sustainable solutions for resilient urban design, like green infrastructure, but also on collaboratively engaging a wide range of stakeholders in the innovation and decision-making process. This government-sponsored initiative brings together the local capacities of six Dutch cities to generate and share lessons from different experiments.

Table A2. Soil initiatives that create social value				
Initiative	Economic value	Social value	Environmental value	Participants
<u>Dige'O methane digester</u> (Obernai, France; since 2016)	Efficiency: Reducing costs by using waste products (food, manure) to create digestate (fertiliser) and produce biogas	Educational non-profit training farmers about optimal digestates to help scale-up practices	Closing resource loops by using a waste by-product as fertiliser	Lead: Obernai Agricultural High School (FR, public) Funders: <u>Rhin-Meuse Water Agency</u> (FR, public), <u>Kronenberger Foundation</u> (FR, foundation), and <u>Agrimer Agency</u> (FR, public) Research partners: Colnar INRA Institution; Graduate School ENSAIA of Nancy; University of Lorraine; Agronomy Graduate School of Dijon (all FR, university)
<u>Agrilombricoltura Terra Viva</u> (Mantua, Italy, since 2011)	Product development: selling solid and liquid earthworm humus	Cooperative model (4 farmers coordinating their waste streams) as a form of inclusive value creation	Closing resource loops by using waste (manure) for vermicompost	Lead: Four dairy farms Collaborators: <u>San Lorezno Coop Agricola</u> (IT, private); <u>Allevamenti Margherita</u> (IT, private); <u>Farm Energy</u> (IT, private);
<u>ÖMKi Research Network</u> (Hungary, since 2012)	Efficiency: Reducing costs through reduced inputs and higher quality variety use	Educational non-profit network for experimentation and training with 100+ farms to help scale-up knowledge	- Diversifying cropland through variety testing for local adaptation - Reducing inputs with remote sensing technology	Lead: <u>Hungarian Research Institute of Organic Agriculture ÖMKi</u> (HU, research institute) Collaborators: <u>BIOEST Initiative</u> (EU research program)
<u>Climate Adaptation Knowledge Portal</u> (Netherlands, since 2014)	Minimising costs from flood damage	Educational government-sponsored program for improving democracy and knowledge diversity in decision-making	Nature-based solutions: Green infrastructure to stabilise soils and prevent flooding	Lead: <u>Climate Adaptation Services</u> (NL, Foundation) on behalf of <u>Ministry of Infrastructure and Water Management</u> (NL, public)

*SBMs for radical organising*

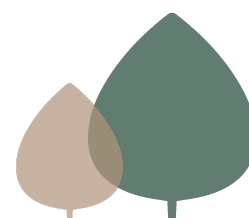


The last group of initiatives are the most complex in their approach: they improve technological efficiency, create social value, and embody several organisational innovations that help create new economic models. We consider these approaches to be the most radical in the way they conceptualise and organise for different types of value. We summarise each initiative in this grouping in text and Table 3.

**Svensk Kolinlagring:** "Svensk Kolinlagring" is a platform that manages three activities related to carbon sequestration projects in Sweden. These include linking farmers with interested organisations and businesses to develop carbon sequestration schemes, partnering with researchers to better understand soil health, and providing educational programming on regenerative agriculture. Currently they are organised as a multi-stakeholder collaboration but plan to formally become an independent, non-profit, member-owned organisation.

**La Jungeura Regenerative Farm & Village:** "La Junquera" is a regenerative farm and village that is central in the regenerative agriculture movement in the south of Spain. All activities are geared towards creating a regenerative agriculture and landscape, from using cover crops to reforestation. They also host several educational programs – such as their ecosystem restoration camp, regeneration academy, and regenerative incubator – all of which are part of their community building efforts. The farms with companies and organisations from several countries, and also partner with regional researchers to monitor important parameters of the farm such as soil health and yields.

Table A3. Soil initiatives that support radical new ways of organising				
Initiative	Economic value	Social value	Environmental value	Participants
<u>Svensk Kolinlagring</u> (Sweden, since 2019)	<ul style="list-style-type: none"> <li>- Linking farmers with markets that pay for carbon storage to promote alternative economies (3 'packages' for farmer involvement)</li> <li>- Serving as an education provider on regenerative practices</li> </ul>	<ul style="list-style-type: none"> <li>- Promoting and teaching carbon capture to build a network of farmers</li> <li>- Involvement in research collaborations for soil carbon storage practices</li> </ul>	Carbon capture through species diversification and ground cover	Leads: <u>MiljöMatematik Malmö AB</u> (SE, private) and <u>Albaeco</u> (SE, organisation) Partners: farmers, investors, researches, and others Funding support: <u>Swedish Agricultural Agency (Jordbruksverket)</u> (SE, public); <u>Vinnova</u> (SE, public); <u>Svea Foundation</u> (SE, foundation); <u>MiljöMatematik Malmö AB</u> (SE, private)
<u>La Jungeura Regenerative Farm &amp; Village</u> (Murcia, Spain; since 2015)	<ul style="list-style-type: none"> <li>- Serving as a hub for environmental education</li> <li>- "Crowdfarming" adopt-a-product (tree, crop, animal) model for shared ownership</li> <li>- Product sales via online shop</li> </ul>	<ul style="list-style-type: none"> <li>- Village and volunteer programs to build community around regenerative principles</li> <li>- Regenerative incubator residence got creative projects</li> </ul>	<ul style="list-style-type: none"> <li>- Using vermicompost and cover crops to reduce inputs and store carbon</li> <li>- Reforestation and natural environment conservation (swales, ponds, natural corridors)</li> </ul>	Lead: La Junquera Farm (ES, private) Linked enterprises: <u>Regeneration Academy</u> ; <u>Camp Altiplano</u> ; <u>Regenerative Incubator</u> Partners: <u>Commonland</u> (NL, private); <u>Patagonia</u> (US, private); <u>AlVelAl</u> (ES, organisation); <u>Universitas Miguel Hernandez</u> (ES, university); <u>Friends of the Countryside</u> (BE, organisation); <u>Volterra</u> (ES, private); <u>Inspiration 4 Action</u> (NL, private); <u>etomato</u> (EU, public); <u>Global Network of Lighthouse Farms</u> (NL, organisation)



## Approaches to collaboration

Across the examples of soil health business models, initiatives embody different approaches for how they work with the stakeholders related to their project. One way to conceptualise these differences is to think about multi-stakeholder involvement along a gradient of collaboration (Figure A1). On one end, coordinators may be the primary decision-makers, with participants in their initiative only belonging to their organisation (solid line). In these cases, stakeholders are involved only insofar as they can be consulted for feedback and coordinated to help leverage resources, but contact may be minimal (dashed line). We will refer to this end of the spectrum as the "coordination". On the other end, decision-making is shared equally amongst a variety of stakeholders, all of whom are participants in the initiative (solid line). All of these participants are involved in the vision creation and joint implementation of the initiative. We will refer to this end of the spectrum as the "co-creation." And of course, most initiatives will fall somewhere in the middle between these 'ideal' types, and have a mix of coordination and co-creation. We briefly describe these approaches in the next sections.

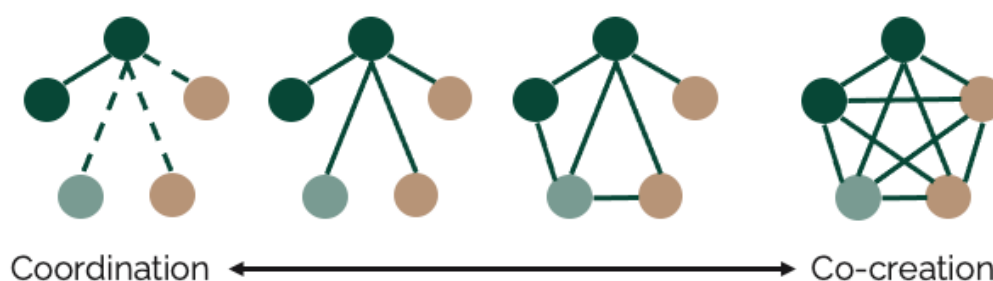


Figure A1. Gradient of collaboration represented by different ways of organising

### Coordination

Along the collaboration gradient there is variation in how groups make decisions and rely on one another. Stakeholders in highly coordinated initiatives are generally more independent and so their relationship with one another is functional. Here, the goal is to leverage the resources of different actors to achieve a mutual goal. This way of organising aligns more with a traditional, hierarchical approach, typically used in situations where uncertainty is low.<sup>1,2</sup>

Several of the soil health business model examples in Section 1 likely embody this approach. For example, "Sward Improver" used external stakeholders to fund research they were interested in and "Phosphate fertiliser optimisation" living labs relied on partner farmers largely to trial a predetermined precision agriculture technology. Thus, while these groups certainly work with different stakeholders – pooling research findings among others, receiving funding from certain agencies, etc. – these are still largely organised from a coordinated approach because decision-making power is fairly concentrated.

### Co-creation

In contrast from coordinated effort, stakeholders in highly co-creative initiatives are generally interdependent and so their relationship is one of mutual support. Here, the goal is to learn from one another and build community through participatory approaches. This way of organising aligns more with a network organising approach, typically used when there is more uncertainty and need for network-level resources.<sup>3</sup>





Also, the social outcomes of co-creation are often objectives in themselves, such as trust-building, capacity building, resilience and social learning<sup>4</sup> – distinct from the more tangible outputs collaboration is meant to develop.

In the case examples, Jungera Regenerative Farm and Village is actively involved in creating an intentional community, mixing its business model with a way of living that celebrates place, history and the environment. And though less community-based, cooperatively managed initiatives like Agrilombricoltura are interdependent and share decision-making power by pooling resources to create a product at scale.

## Conclusion

In this guidebook we presented ten examples of Living Labs and Lighthouses related to soil health that represent different sustainable business models. These examples range from those that focus largely on efficiency gains for environmental improvement to community building and education for generation of environmental and social value. Relatedly, we discuss that alongside these business model approaches there are also different ways of collaborating with stakeholders, which can be more functionally coordinated or more community based and co-creative.

There is no single "right" answer to what approach an initiative should take, and deciding is part of the creative exercise of any case study. Moreover, these models may shift over time as the initiative grows and changes. By bringing in the examples from this guidebook, initiatives can have an informed discussion about the models they think are best suited for their project in its current stage.

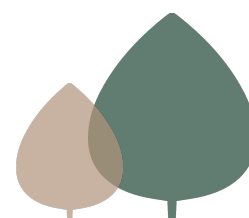
## Methods and references

### Methods

This report is informed by desk research of the sustainable business model academic research, as well as empirical examples from Soil Mission soil cases. The academic research was reviewed using bibliometric analyses on the topics of business models and collaborative processes. The empirical cases for soil health were gathered from a review of the data available by PREPSOIL. A caveat, as highlighted in Footnote 1, is that the descriptions of these examples are based solely on websites and reports, so we know that our interpretation is limited by this method.

### References

1. Ciulli, F., Kolk, A., Bidmon, C. M., Sprong, N. & Hekkert, M. P. Sustainable business model innovation and scaling through collaboration. *Environmental Innovation and Societal Transitions* 45, 289–301 (2022).
2. Provan, K. G. & Kenis, P. Modes of Network Governance: Structure, Management, and Effectiveness. *JPART* 18, 229–252 (2008).
3. Musiolik, J., Markard, J., Hekkert, M. & Furrer, B. Creating innovation systems: How resource constellations affect the strategies of system builders. *Technological Forecasting and Social Change* 153, 119209 (2020).
4. Newig, J., Adzersen, A., Challies, E., Fritsch, O. & Jager, N. Comparative Analysis of Public Environmental Decision-Making Processes – A Variable-Based Analytical Scheme. *SSRN Journal* (2013) doi:10.2139/ssrn.2245518.



## Appendix III. Optional activities

### *Alternative to 3.1 SBM designing*

**Who should be involved?** Coordinator(s) and initiative participants. Depending on the kind of initiative, however, the extent to who is involved and how may vary.

**What is the main activity?** Design the initiative's sustainable business model using the Sustainable Business Model (SBM) canvas. This canvas is a simple tool for thinking about the main elements of a business model – value proposition, value capture, and value creation – across economic, environmental, and social layers.

**Why?** Canvases help make the value propositions of an initiative explicit and are one of the first steps towards concrete action. With this canvas, initiatives can communicate their position and planned actions, as well as identify previously unforeseen opportunities and strategize for the long-term success of their initiative.

**How?** The creation of the SBM canvas is ideally done through a meeting where participants reflect on the possibilities of integrating sustainability into a business model, followed by a step-by-step discussion for each 'layer' of the canvas.

Guiding instructions and questions for completing the SBM canvas include:

- *Reflecting on business models and sustainability*
  - What business model examples do you think of as good models of sustainable businesses or organisations?
  - Of these different approaches, what do you find interesting or appealing? What is not interesting or appealing?
  - (If relevant) Reflect on your current business model approach. Which parts are more or less sustainable?

To supplement the examples identified in this reflection, we provide an SBM Guidebook that shares examples from different soil-related LHs and LLs in Europe.

- *Completing the canvas:* After these reflections, walk through the questions in each "layer" on the SBM canvas, starting first from the environmental canvas, followed by social and economic canvases. This is an iterative process, however, with each canvas potentially needing revisited as new ideas emerge in each layer.
  - *Value proposition:* What value does the initiative bring to the environmental/social/economic dimension? In other words, what is the product or service and how does it contribute to each of these dimensions? Who are the customers that this product or service serves? In the economic layer, consider those who financially propel your initiative as your customers, and in the other layers, consider the respective dimension (i.e. environment, society) as the "customer" you are serving.
  - *Value creation:* What actions do you need to take to create the proposed environmental/social/economic value? Who and what do you need to help carry out those activities? What kinds of resources do you have/are available (human resource, natural capital, knowledge capital, etc)? Consider the actor network map (Portfolio Output 5) to identify what connections can be drawn on to help create complementarities.

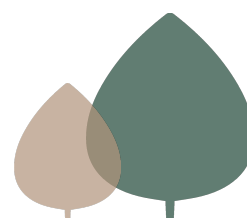


- *Value capture:* Considering your value proposition and value creation activities: How do you get value back to the initiative? Consider the costs and benefits for each layer. Who will these costs and benefits be measured?

**Outcome:** A draft of the initiative's Sustainable Business Model Canvas.

**Template:**

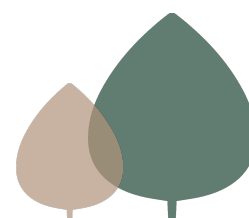
1. ENVIRONMENTAL VALUE PROPOSITIONS	2. VALUE CREATION	3. VALUE CAPTURE
<p>WHAT VALUE DOES YOUR INITIATIVE BRING TO THE ENVIRONMENT?</p> <p>In this layer, <u>conceptualize the environment as your customer</u>, including the direct and indirect effects of your initiative.</p> <p>PAINS: What potential environmental problems are you solving?</p> <p>GAINS: What potential environmental needs are you fulfilling?</p>	<p>WHAT ARE THE MOST IMPORTANT ACTIVITIES YOUR INITIATIVE NEEDS TO DO TO CREATE YOUR PROPOSED ENVIRONMENTAL VALUE?</p> <p>WHAT RESOURCES DO YOU NEED? WHERE WILL YOU GET THEM? (e.g. soil quality testing protocol, price premium to leave field fallow)</p> <p>WHO WITHIN THE INITIATIVE IS GOING TO CARRY OUT THOSE KEY ACTIVITIES?</p> <p>WHO OUTSIDE THE INITIATIVE DO YOU NEED TO SUPPORT YOUR ACTIVITIES? (e.g. farmer network, public land advocates, active community gardeners)</p>	<p>HOW DOES YOUR ENVIRONMENTAL VALUE PROPOSITION AND CREATION ALIGN TO BRING VALUE BACK TO THE INITIATIVE?</p> <p>HOW DOES YOUR INITIATIVE POSITIVELY AFFECT (DIRECTLY OR INDIRECTLY) THE ENVIRONMENT?</p> <p>WHAT HARMS (DIRECT OR INDIRECT) MIGHT YOUR INITIATIVE HAVE ON THE ENVIRONMENT?</p> <p>HOW WILL YOU MEASURE AND MONITOR YOUR ENVIRONMENTAL COSTS AND BENEFITS?</p>





1. SOCIAL VALUE PROPOSITIONS	2. VALUE CREATION	3. VALUE CAPTURE
<p>WHAT VALUE DOES YOUR INITIATIVE BRING TO SOCIETY?</p> <p>WHO ARE THE SOCIAL BENEFICIARIES OF YOUR INITIATIVE?</p> <p>In this layer, <u>conceptualize society as your customer</u>, including customers from the economic layer, as well as stakeholders within and outside your initiative.</p> <p>PAINS: What potential social problems are you solving?</p> <p>GAINS: What potential social needs are you fulfilling?</p>	<p>WHAT ARE THE MOST IMPORTANT ACTIVITIES YOUR INITIATIVE NEEDS TO DO TO CREATE YOUR YOUR PROPOSED SOCIAL VALUE?</p> <p>WHAT RESOURCES DO YOU NEED? WHERE WILL YOU GET THEM? (e.g. strong community leaders, land trusts, micro-finance structures)</p> <p>WHO WITHIN THE INITIATIVE IS GOING TO CARRY OUT THOSE KEY ACTIVITIES?</p> <p>WHO OUTSIDE THE INITIATIVE DO YOU NEED TO SUPPORT YOUR ACTIVITIES? (e.g. public authorities, community organizers, etc.)</p>	<p>HOW DOES YOUR SOCIAL VALUE PROPOSITION AND CREATION ALIGN TO BRING VALUE BACK TO THE INITIATIVE?</p> <p>WHAT HARMS (DIRECT OR INDIRECT) MIGHT YOUR INITIATIVE HAVE ON YOUR SOCIAL CUSTOMERS AND WIDER SOCIETY?</p> <p>HOW DOES YOUR INITIATIVE POSITIVELY AFFECT (DIRECTLY OR INDIRECTLY) YOUR SOCIAL CUSTOMERS AND WIDER SOCIETY?</p> <p>HOW WILL YOU MEASURE AND MONITOR YOUR SOCIAL COSTS AND BENEFITS?</p>

1. ECONOMIC VALUE PROPOSITIONS	2. VALUE CREATION	3. VALUE CAPTURE
<p>WHAT PRODUCTS/SERVICES DO YOU OFFER? WHY WOULD A CUSTOMER BUY FROM/FUND YOU?</p> <p>WHO ARE YOUR CUSTOMERS?</p> <p>In this layer, <u>your customers are those who economically propel your initiative</u>. These could be standard customers who pay for a product/service, or funders of your activities.</p> <p>PAINS: What potential problems are you solving for these customers?</p> <p>GAINS: What potential needs are you fulfilling?</p>	<p>WHAT ARE THE MOST IMPORTANT ACTIVITIES YOUR INITIATIVE NEEDS TO DO TO CREATE YOUR YOUR PRODUCT/SERVICE?</p> <p>WHAT RESOURCES DO YOU NEED? WHERE WILL YOU GET THEM? (e.g. Finance/capital/credit, machinery/equipment, knowledge)</p> <p>WHO WITHIN THE INITIATIVE IS GOING TO CARRY OUT THOSE KEY ACTIVITIES?</p> <p>WHO OUTSIDE THE INITIATIVE DO YOU NEED TO SUPPORT YOUR ACTIVITIES? (e.g. suppliers, investors, joint ventures)</p> <p>HOW DO YOU DELIVER YOUR PRODUCT/SERVICE TO THE CUSTOMER?</p>	<p>HOW DOES YOUR ECONOMIC VALUE PROPOSITION AND CREATION ALIGN TO BRING VALUE BACK TO THE INITIATIVE?</p> <p>WHERE DOES REVENUE COME FROM? WHAT IS THE CUSTOMER ACTUALLY PAYING FOR?</p> <p>WHAT ARE THE MOST IMPORTANT COSTS &amp; THE MOST EXPENSIVE RESOURCES NEEDED TO CARRY OUT THE ACTIVITIES OF THE INITIATIVE?</p> <p>HOW WILL YOU MEASURE AND MONITOR YOUR FINANCIAL COSTS AND REVENUE?</p>



## Visioning

**Who should be involved?** Coordinator(s) and initiative participants

**What is the main activity?** A collective reflection and discussion about your initiative's vision. A vision is a version of the future that the initiative would like to help to create, representing shared values that the team wants to uphold.

**Why?** A shared vision is a great source of inspiration and power for a team to work together. The creation of a powerful narrative can become like a self-fulfilling prophecy that people put their energy, time, and thoughts towards. Through these acts, the envisioned future is more likely to become true.

**How?** The visioning session should be facilitated, either by the coordinator or an outside facilitator, to guide the group through a collective visioning exercise.

Guiding prompts for the facilitator to use include:

- *Going through the time machine*
  - Imagine you are in a time machine. In some moments you will step through a door, into a possible future in 20 years from now. In this future your initiative will have made a very positive impact. It will have strengthened a sustainable transition for your sector and inspired many other initiatives. I invite you to close your eyes. Be still for a while, take some time to watch your breath. Now step through the door, out of the time machine (you may invite participants to actually take a step forwards). Take some time to imagine the sector and area surrounding your initiative in 20 years from now. Imagine that all the aspirations of this initiative and more have come true. What will it look like? How will the area look like? What will people be doing? How will they interact with the environment? What will they deem as valuable? (Leave time for participants to envision this world with their eyes closed).
- *Reflective discussion*
  - Now, I invite you back to the present. You may open your eyes. We all just imagined a different future, but we hope that the core is similar. One by one, say a word or a sentence that describes the core idea of the future. You may draw or write it on a note. Together, make a story out of these ideas. Also try to make a title for this vision –this title will become the vision guiding your sustainable business model design and strategy.

**Outcome:** A vision narrative that provides a vivid image of the future that participants in the initiative are motivated by.

**Resources:** References used to generate this visioning exercise come from Rob Hopkin's *From What Is to What If* (2019). Additional resources include Frederic Laloux's *Reinventing Organizations* (2014), and Simon Sinek's *Start With Why* (2011).

