

FoTRRIS

Fostering a Transition towards Responsible Research and Innovation Systems

Activity models

Deliverable D2.5

Main authors: Eve Dallamaggiore¹, Daniele Kielmanowicz¹, François Aze¹,

Contributors: Nele D’Haese², Inge Liekens², Sandra Karner³, Juan Pavon⁴, György Pataki⁵, Jelena Mazaj⁶

¹ LGI Consulting, Paris

² VITO, Mol

³ IFZ, Graz

⁴ UCM, Madrid

⁵ ESSRG, Budapest

⁶ CESIE, Sicily

<http://www.fotrris-h2020.eu>



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About the FoTERRIS project

FoTERRIS develops and introduces new governance practices to foster Responsible Research and Innovation (RRI) policies and methods in Research and Innovation (R&I) systems.

FoTERRIS stresses that RRI is a collaborative activity from the very beginning. Therefore, FoTERRIS adds the prefix 'co' to the acronym RRI. Important present-day challenges are of a global nature but manifest themselves in ways that are influenced by local conditions. Thus, FoTERRIS focusses on glocal challenges, i.e. local or regional manifestations of global challenges and on local opportunities for solving them.

FoTERRIS performs a transition experiment, i.e. an experiment to support the transformation of present-day research and innovation strategies into co-RRI-strategies. It designs, tests and validates the organisation, operation and funding of co-RRI competence cells. A competence cell is conceived as a small organisational unit, which functions as a local one-stop innovation platform that encourages various knowledge actors from science, policy, industry and civil society to co-design, -perform, and –monitor co-RRI-projects that are attuned to local manifestations of global sustainability challenges.

Since research and innovation systems and practices in EU member states and within different research performing organisations vary, FoTERRIS experiments the implementation of new governance practices in five member states. These five experiments are evaluated, validated and constitute the basis for FoTERRIS policy recommendations towards EU and member states policy makers so as to enforce co-RRI into the national and EU R&I systems. Training is dispensed to various stakeholders, so as to form them to establish other co-RRI competence cells.

For more information see <http://www.foterris-h2020.eu>



Coordinator contact:

Nele D'Haese / Unit Sustainable Materials Management / VIT NV / Boeretang 200, 2400 MOL, Belgium.
 t: +32/14 33 58 46 | e: nele.dhaese@vito.be | w: www.vito.be/english

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Abbreviations

Business Model Canvas	BMC
Community Based Research	CBR
Community of Practise	CoP
Competence Cell	CC
Civil Society Organisation	CSO
Do It Yourself	DIY
Impact Hub	IH
Participatory Action Research	PAR
Research & Development	R&D
Research and Innovation	R&I
Research Innovation System	RIS
Research Performing Organisations	RPO
Responsible Research and Innovation	RRI
Transition Experiment	TE
Work Package	WP

1 Introduction

This deliverable is part of WP2 ‘Design of a multi-actor experiment’ and reports on the activities carried out under Task 2.4 ‘Business model for the competence cells, and alternative funding and evaluation methods for RRI projects and solutions’.

Objectives of WP2:

The conceptual framework developed in WP1 will be put into practice in WP2. A Co-RRI knowledge arena and a co-RRI web-based platform will be designed. The co-RRI knowledge arenas will be designed as the new social spaces that foster and facilitate co-RRI. They will form a network entirely and specially dedicated to research on RRI and promotion of RRI. The co-RRI web-based platform will embody the process architecture, integrating co-RRI standards and methods, to co-design RRI project concepts. A business model will be developed in order to assure the knowledge arenas’ sustainability over time. While a business model will be developed for the knowledge arenas, a rewarding and compensation strategy will be sought for stakeholders contributing to the co-design of co-RRI project concepts. After being tested in real situations in WP3, co-RRI knowledge arena, platform specs, business model and rewarding and compensation strategy will be refined and improved where found needed. Different finance sources (public procurement, special contests, local public financing, special RRI funds etc) will be investigated for financing co-RRI projects and marketing of developed solutions, products and services.

Objectives of T2.4:

Co-RRI projects and knowledge arenas will be confronted with current barriers. In order to promote co-RRI projects within research performing organisations, an appropriate rewarding and compensation strategy will be sought to value the quality of both formal and informal knowledge actors’ contributions to co-RRI project concepts and to compensate for the investment of time and other resources. To ensure the knowledge arenas’ sustainability over time, an appropriate business model will be sought.

These models will be built on the reorganisation of researchers’ work to allocate more time to co-RRI activities. The reorganisation will be based on enlarging the scope of criteria that allow for research funding in order to fund equally, and even more, RRI projects based on their responsible innovation excellence, and to provide researchers with more time and recognition for the work they carry out in co-RRI projects. Money and reputation flows will be rethought in order to reward each stakeholder participating in co-RRI projects and to internalise external costs of innovation. The reorganisation will also deal with how to promote better RRI in scientific journals and in the ranking of universities.

Public procurement and other financial means such as new funding rules, special contests for RRI projects, crowdfunding, local public financing, venture capital and dedicated funding from special RRI funds will be studied and further developed in order to finance co-RRI projects.

Rewarding and compensation strategy and business model will be based on the outcomes of WP1. Further interviews, especially with direction board of research organisations, scientific journals, R&I departments of businesses, and with policy makers will be conducted.

This deliverable deals with the part of the task related to the business models.

2 Method and task process

2.1 Context

Competence cells are the organisations created within FoTERRIS to achieve the transformation of the current Research and Innovation (R&I) system. They are conceived as experienced centres for the facilitation and management of co-RRI.

The design of the competence cells has benefited from several other project tasks. The review of the literature on RRI and the development of the co-RRI concept (WP1) imagined by FoTERRIS partners laid the foundation of the competence cells. The transition experiments (WP3) offered the possibility to test what these competence cells could look like, what their operational model could be and if they were desirable from the point of view of external stakeholders. While the governance model of the competence cells is described in D2.3 'Governance models', this deliverable presents the cells' short-term activity model, which will be operational just after the project, and their long-term activity model, which is a blueprint of their ideal activity model.

A description of the 'task process' constitutes the first section of this deliverable. A chronological sequence recounts the different steps which punctuated the elaboration of the activity models. Then, the activity models of each cell are presented.

These activity models can serve as life-size examples which could guide others in the elaboration of their own competence cell. Last but not least, the Annexes of the document contain among others, a toolkit entitled 'Strategies, scenarios & activity models for fostering RRI' which could support those interested in developing such organisation.

2.2 Working framework: adapting Osterwalder's tools to the FoTERRIS needs

The subject of D2.5 is the business models of the competence cells developed. However, as the project progressed, it appeared that the term 'business model' did not match perfectly with the spirit of the competence cell, so we changed it for 'activity model'. However, the idea behind remained the same: finding a way to ensure the economic viability of the cells. That is the reason why we worked with usual methods of business modelling, that we then adapted to the cell's specificities.

As entrepreneurship gains importance in all economic fields, today there are many tools to describe and think through an organisation's business model. We have chosen to rely on [Osterwalder's definition of a business model](#). Osterwalder is one of the pioneers of the research field on business models. According to him, "[a business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money](#)". It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams" (Alexandre Osterwalder, 2004).

Osterwalder's seminal work on a business model ontology (Alexandre Osterwalder, 2004) led him to develop one of the most popular tools for defining business models: the [renowned Business Model Canvas](#) (BMC). The BMC serves as tool for business model innovation (Alexander Osterwalder & Pigneur, 2010) and it has been widely used by leading companies including 3M, IBM, Deloitte, Ericsson, among others. The BMC methodology breaks down a business model into nine building blocks: Key Partners, Key Activities, Key Resources, Value Propositions, Customer Relationships, Channels, Customer Segments, Cost Structure and Revenue Streams. These nine building blocks cover four main structural areas that need to be addressed for a successful business model: customers, offer, infrastructure and financial viability.

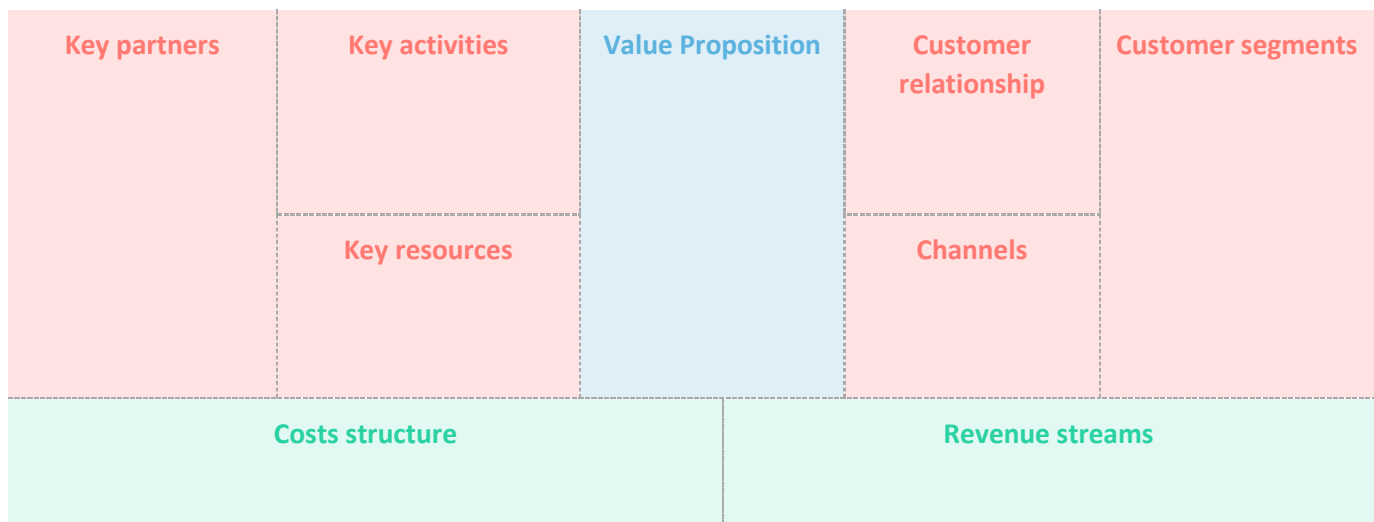


Figure 1: Business Model Canvas framework with its nine building blocks in four different colors representing the four main areas (Alexander Osterwalder & Pigneur, 2010)

The building blocks illustrated in Figure 1 are the following (Boo & Dallamaggiore, 2015):

- Customers:
 - **Customer segments** define the groups of people or organizations that an organisation aims to offer value with its services or goods.
 - **Customer relationships** are the links a company establishes between its specific customers and itself.
 - **Channels** are the means of getting in touch with the customers. It is the connection between the company value proposition and its target clients.
- Offer:
 - **Value proposition** gives an overall view of a company's bundle of products and services that represent value for a specific customer segment and fulfil customer needs.
- Infrastructure:
 - **Key activities** are the actions a company performs to make the business model work.
 - **Key partnerships** describe the network of suppliers and partners needed to make the business model work.
 - **Key resources** correspond to assets required to produce services and goods.
- Financial viability:
 - **Revenue streams** explain how a company makes money through the revenue flows from the value proposition offered to customers.
 - **Cost structure** is the representation of costs resulting from the operation of the business model.

We initially chose Osterwalder's tools for developing the competence cells' business for they are easy to use, and they allow for a quick understanding of what a business model is: a way to represent how an organisation creates value for its clients, generates income and how it is structured internally. To explore activities models that could support RRI projects economic sustainability, specific frameworks were created, which are presented in detail in the next chapters.

2.3 Task process in detail

2.3.1 Process overview

These activity models on business models are the outputs of a process of discussions, exchanges and debates between LGI and the other FoTERRIS partners.

Six main actions were undertaken to elaborate the activity models:

- **Representing the issue & making it concrete:** translating the abstract concepts and making them concrete. Actors, interactions among them and relevant issues were represented visually with the aim of providing an overview of the issues and concerns to be addressed.
- **Raising key questions:** this part implies questioning about key elements to be thought about in the activity model, such as “will it have commercial revenues?”, “who our main beneficiaries are?”, “should we join forces with existing organisations?”, etc.
- **Brainstorming:** brainstorming activities were undertaken to find several ideas to the key questions, and to start thinking about the activity models’ shape and main features.
- **Giving examples and/or proposing activity models:** To support brainstorming activities and the elaboration of activity models, LGI developed several examples of activity models, that the partners could use as a basis to build their model.
- **Framing the development of an activity model:** This refers to the way we thought about an activity model: what should it contain to be complete, to reflect in the best ways the specificities of the cells? It also refers to the first partners’ elaborations of their activity models.
- **Reviewing the activity models:** LGI reviewed the activity models of the partners, including their first versions.

Table 1 provides an overview of all actions undertaken with the partners to elaborate the activity models.

Table 1: Overview of T2.4's process on activity models. Working sessions with partners (chronological order) on the left, and actions undertaken for each on the right.

Event (top of the table= oldest event, bottom= more recent)	Actions undertaken					
	Representing the issue & make it concrete	Raising key questions	Brainstorming	Giving examples and/or proposing activity models	Framing the development of an activity model	Reviewing the activity models
Graz plenary meeting	✓	✓	✓	✓		
Budapest plenary meeting		✓	✓		✓	
Brussels meeting		✓		✓		
1 st questionnaire					✓	✓
Madrid plenary meeting		✓		✓		
Toolkit for the outreach workshop				✓	✓	✓
Final template to describe the activity models		✓		✓	✓	✓

Once we had represented the activity model issue to make it concrete, we worked with the partners in the following way (Figure 2):

- Workshops during plenary meetings (Graz, Budapest, Madrid)
- Specific workshop with the Coordinator (Brussels)
- A 1st questionnaire about their activity model
- A toolkit to be used during their outreach workshop to frame the discussions on their activity model
- A final template to report about their activity models

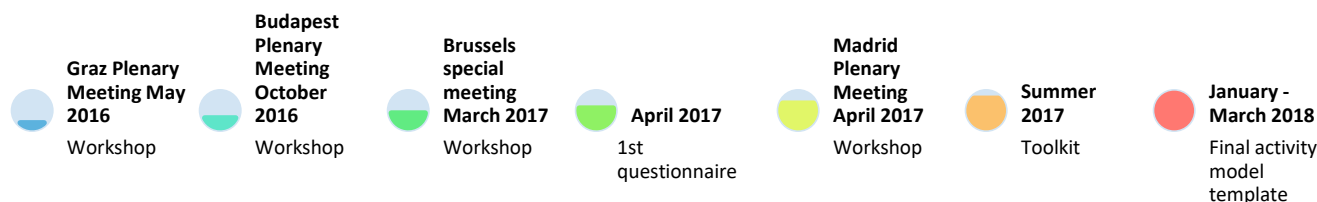


Figure 2: Chronology of task's actions

In this task, it was crucial that LGI pay attention to respecting the partners' desires and own approaches to setting a competence cell, while trying to align them with "the business model" thinking. When LGI had elaborated some examples of activity models, competence cells leaders considered the adoption of the proposed ideas in their contexts. They reflected about the viability of implementing such ideas as an activity model for their cell.

2.3.2 Graz plenary meeting (May 2016)

Representing the issue & making it concrete

In the context of the Graz plenary session, task 2.4 was presented to the Consortium members.

The DOA had been translated into concrete actions and the main stakeholders in the field of research and innovation (R&I) and responsible research and innovation (RRI) had been identified through a stakeholder mapping exercise.

Slide 12 (Figure 3) of the presentation to the consortium highlighted the core issues and questions that needed to be addressed during the following brainstorming sessions, such as possible funding options for the Co-RRI platform, the rewarding and compensation strategies or the business model possibilities.

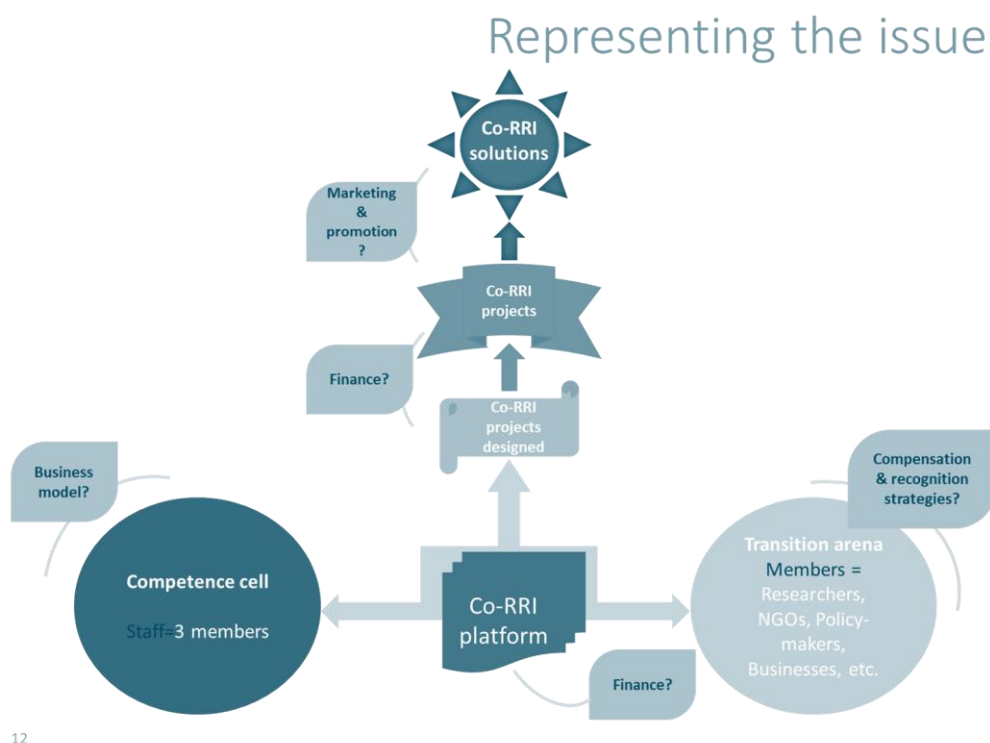


Figure 3: Graz Plenary Meeting Presentation – Slide 12

Proposing

An initial model was proposed during the Graz Plenary Meeting illustrated in Figure 4. The idea was to use the H2020 funding to finance the activities of the transition arenas, of the competence cells and of the Online platform. Then, the competence cells would support the Online platform and use it for its activities, while member of the Arenas would bring in new CO-RRI project ideas and their skills. The best Co-RRI projects ideas would be selected to be implemented in a collaborative way. And a small percentage of the economic gains generated by the projects would serve to investment in the continuity of the competence cells and Knowledge Arenas.

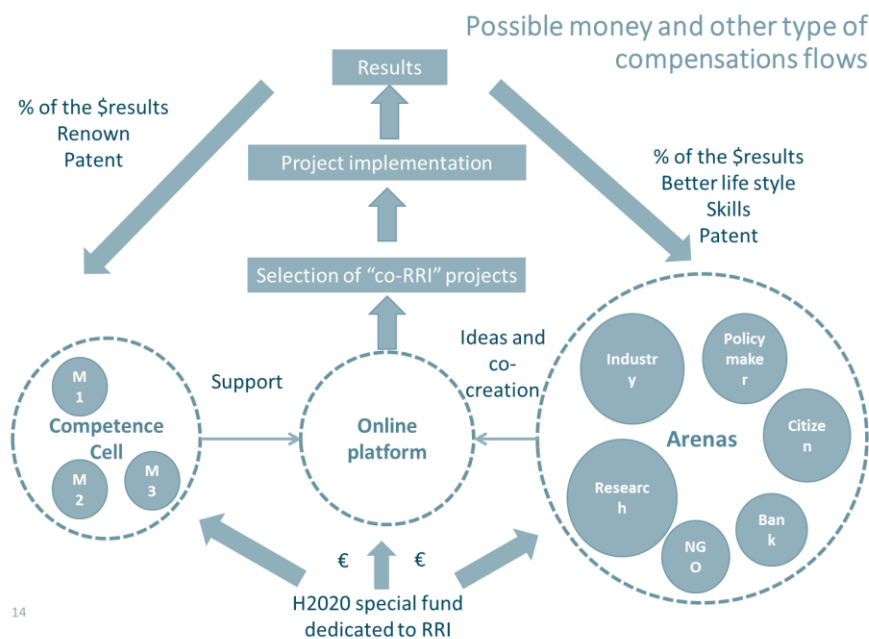


Figure 4: Graz Meeting Plenary Presentation – Slide 14

Raising crucial questions

At Graz, there were still many pending questions such as:

- Competence cells:
 - How, where and when competence cells originate? Natural sprouting?
 - Are competence cells meant to last “forever”?
- Business model:
 - How much is the concept of business model and remuneration strategies relevant now?
 - Generalized business models/remuneration strategies or on a case by case basis business models/remuneration strategies?
 - Do we foresee any economic outputs from co-RRI processes/ economically convertible outputs? To whom belong the patent(s)/ideas resulting from co-RRI projects?
- Compensation and remuneration:
 - How to compensate researcher time to coach transition arena? Part of “normal” research activity in one’s research organization?
 - Money VS other exchange means for participants to transition arenas?

Knowledge cafés: first brainstorming

The Knowledge Café was the first formal brainstorming session with partners and external experts from the advisory board. This discussion occurred on the second day of Graz Plenary Meeting. One part of the Knowledge Café was to discuss ‘How to institutionalise the competence cells’?

The Knowledge Café takeaways are the followings:

- RRI should not remain a hobby for researchers, it needs recognition to become a mainstream. Therefore, the competence cells should be institutionalised.
- The role of the competence cells could be to:
 - Support to RRI development and implementation;
 - Create links between stakeholders (mediation & catalyse);
 - Offer a market place for research ideas and match knowledge and needs;
 - Provide consultancy services;
 - Issue a (co-)RRI label.
- Various forms of institutionalisation:
 - Bottom-up models: Science shops or ICT platforms to connect researchers and citizens.
 - Top-down models: Introduction of RRI criteria into existing funding programs, adoption of RRI criteria by academic institutions or use a label to acknowledge RRI projects.
 - Mix: Through a network of NGOs or Public Common Partnerships.
- The services and skills a competence cell could provide:
 - Training on RRI (ethics, privacy concerns, co-creation methods)
 - Marketing of RRI solutions
 - Conflict management
 - Crowdsourcing
 - Certification/ label accreditation
 - Platform
 - Evaluation according to RRI criteria

Use of the Graz meeting

The Graz meeting opened the debate. The project partners participated in the discussion by providing their opinions and ideas. LGI used the takeaways of the Knowledge Café to search for examples that met the partners’ ideas. The Graz meeting helped understanding the expectation of all partners and their inclination toward certain ideas and models. In addition, it was useful for limiting the scope of activities and mission of the competence cells.

Still, it was too early to reach any conclusion.

2.3.3 Budapest plenary meeting (October 2016)

Workshop: raising key questions, brainstorming and framing

In Budapest, partners were asked to think about the main results of the project that needed to be sustained by a business model, such as the competence cell, the Knowledge Arenas and the online platform. Additional questions were asked during a team work exercise aiming to develop better vision of the models and functionality of the Co-RRI-hubs.

The team exercise consisted in answering some pending questions from Graz, brainstorming about business model ideas and in defining together the core stakeholders profile. The Value Proposition Design methodology from Strategyzer was used to define the customer profile and each stakeholders’ group pain, tasks and gains.

Partners were divided into groups and were asked to brainstorm about: the customers task and what there are trying to get done in their work (customer task); the bad outcome, risks and obstacles related to their tasks (customer pain); and the positive outcome or benefit they want to achieve (customer gain) (Alex Osterwalder, 2014). Table 2 that follows is a summary of the customer profile analysis for four types of potential beneficiaries or partners: companies, sustainable NGOs/CSOs, politicians and frustrated researchers.

Table 2: customer profiles

Companies who want to do things differently (doing well by doing good)	
Gains	Profit, good brand, image, self-fulfilment, values, expertise, rewards, integration in society
Tasks	Find a way to do business differently, innovate differently, innovate efficiently, promotion of what they do
Pains	Fears of being less competitive, missing capacities, regulatory locks-in, culture
Sustainable NGOs / CSOs (similar to frustrated citizens)	
Gains	Accomplishment, network growth, allocate? legitimacy
Tasks	To find more means/leverages to 'convince society' of the use of their work, find public/society engagement
Pains	Lack of support (general), being alternativist (general)
Politicians active in tackling grand challenges	
Gains	Get closer of society, legitimacy, network, 'more power', gain confidence, renown
Tasks	Gain citizen/ business support, set the policy agenda
Pains	Fear of elections, risk of losing time/resources, lobby
Frustrated researchers	
Gains	Recognition, find meaning, ethical balance
Tasks	Prove the validity, have impact/influence, try new method
Pains	Organisational support, pressure, ranking of university, lack of funding, whole performance of the measurement system

Partners used this adapted business model canvas (Table 3) to brainstorm about business ideas. It helped them identifying their local resources and infrastructure, the benefit that they can offer to their customers and who could they involve in activities.

Table 3 : simplified business model canvas

Co-RRI infrastructure & means	Benefits offered by co-RRI infrastructure	Co-experts
Viability structure		

At the end of the workshop partners agreed that each competence cell can have different business models according to local circumstances, partnerships and resources. It was decided that each competence cell will have a tailored-made business model.

Use of the Budapest meeting

The Budapest meeting opened another chapter of study. LGI used these results to search for examples that met the partners' ideas to develop further propositions of activity models.

2.3.4 Brussels meeting with VITO, ERRIN and LGI (March 2017)

Proposing

In Brussels, LGI presented the research made after the Budapest meeting. It defined three dimensions that should be taken into consideration for defining the business model possibilities for each competence cell: the value proposition dimension; the resources dimension; and the legal entity dimension. Based on these three dimensions, LGI presented seven scenarios of business models, along with how the cells could cooperate through a network:

1. Competence cell hotspot
2. A market place for skills and services
3. Project winners' platform
4. The 'European' approach
5. The RRI journey
6. The RRI Civic service
7. The FoTERRIS Fablab

Use of the Brussels meeting

In Brussels it was decided that all Hubs should start reflecting about their business models. A document on the mandates of competence cells would be prepared by VITO before the Madrid Meeting, containing the core 'tasks' that should be carried out by all competence cells, and the 'optional' tasks, that can be carried out on a voluntary basis.

It was decided that LGI would make a questionnaire, destined to all partners, to frame the development of their activity models (Annex 1). Two partners had enough information at this stage to answer it.

2.3.5 Madrid plenary meeting (April 2017)

Raising key questions & proposing

In Madrid's plenary session, the term business model was abandoned for 'activity model'. The method envisaged for the task of developing an activity model for the competence cells was presented. Moreover, inspiring ideas and possible scenarios for both the individual and the network of competence cells were presented and discussed.

In this occasion, was also presented the Brussels' discussion outcomes, namely the idea that the priority is to create an activity model for each of the five funding competence cells, and only if possible, an extended network of competence cells.

To ensure the economic sustainability of the current competence cells, three options were envisioned:

- Funding (including crowdfunding and private funding)
- Exchanges between the cells and other parties including money exchanges (e.g. co-RRI services exchanged against money)
- Combination of both

While raising questions about the economic viability of the network and competence cells, was transmitted to partners the importance of defining their competence cell mandate, value proposition, core resources and legal entity possibilities to explore the suitable activity models.

Use of the Madrid meeting

In Madrid, the consortium partners agreed about key concepts and ideas. Figure 5 illustrates some of the key concepts that got clarified: Co-RRI network model, an activity model at the network level; Activity model, the competence cell activity that ensures economic sustainability; and the remunerations, compensation and valorisation strategies that are used at the hub level to raise citizen participation in Co-RRI projects.

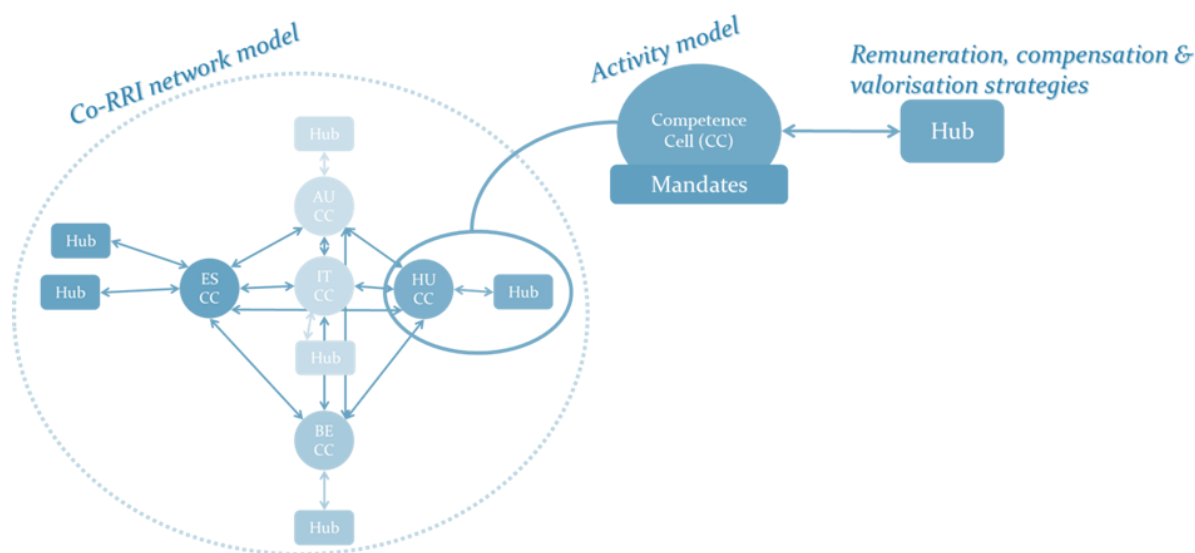


Figure 5: Madrid's plenary meeting conceptual clarifications

The term 'activity model' was adopted to replace the concept of business model. The goal was to ensure a less "commercial" approach for the competence cell economic sustainability strategy. In Madrid, LGI committed to develop a toolkit for the outreach workshop with additional options and scenarios and a template to frame the development of scenarios for the competence cell of each partner.

2.3.6 Outreach workshop toolkit

During the outreach workshop, a session was dedicated to elaborating scenarios for the competence cell's activity models. To equip the partners with appropriate tools, LGI prepared a "toolkit" consisting of:

- Explanation of what a "scenario" is
- Guidelines for building scenarios
- Blank canvases, corresponding to the different elements of a scenarios, that partners had to fill in
- Examples of scenarios, and a list of options for their activity models (options of services, economic model, etc.).

The "toolkit" methodology was decrypted and explained in detail in the following sections. For more information, the whole toolkit is available in Annex 3.

Constituting elements of a scenario

The goal of the 'toolkit' methodology is to facilitate the creation of possible scenarios for the development of competence cells and their activity model. The "toolkit" aimed to help partners considering the different options, identifying all the factors and variables that will condition their competence cell development.

As shown in Figure 6 the **scenario's high-level description canvas** intends to capture the overall picture of the scenario with few questions. It enquires about the objectives of the competence cell in a given scenario, about the main actions that will allow it to reach the high-level objectives, about the organisation(s) responsible for the main actions, about the target groups and about the motivations of the different actors involved.

High-level description canvas	Brief description of the scenario	
	Main lines of action The main lines of action that will allow to reach the high-level objectives and make the R&I system more responsible?	High-level objectives They intends to achieve shall address some (or all) shortcomings or failures of the current R&I system
	Organisations, targets, partners and levels A brief overview of <ul style="list-style-type: none"> - the main organisations 'responsible' for the big actions, - of target actors - and of partners, if any 	Motivations Explain what could motivate: <ul style="list-style-type: none"> - The main organisation(s) - The target actors - The partners to 'participate' in this scenario

Figure 6: The scenario's high-level description canvas

The strategy canvas (Figure 7) poses questions on the strategy that will ensure that the scenario objectives are achieved. It generates a reflection on the time horizon and on how the overall operations are going to be structured to make sure objectives are reached. Then, it demands information on the approach for fostering RRI, whether it is going to be a top-down, bottom-up or a hybrid approach. It poses questions about the geographic scope of the scenario and if it depends or not on the creation of a brand-new

organization. Finally, it demands a justification on the soundness of the strategy and overall scenario and on their capacity to reach the defined objectives.

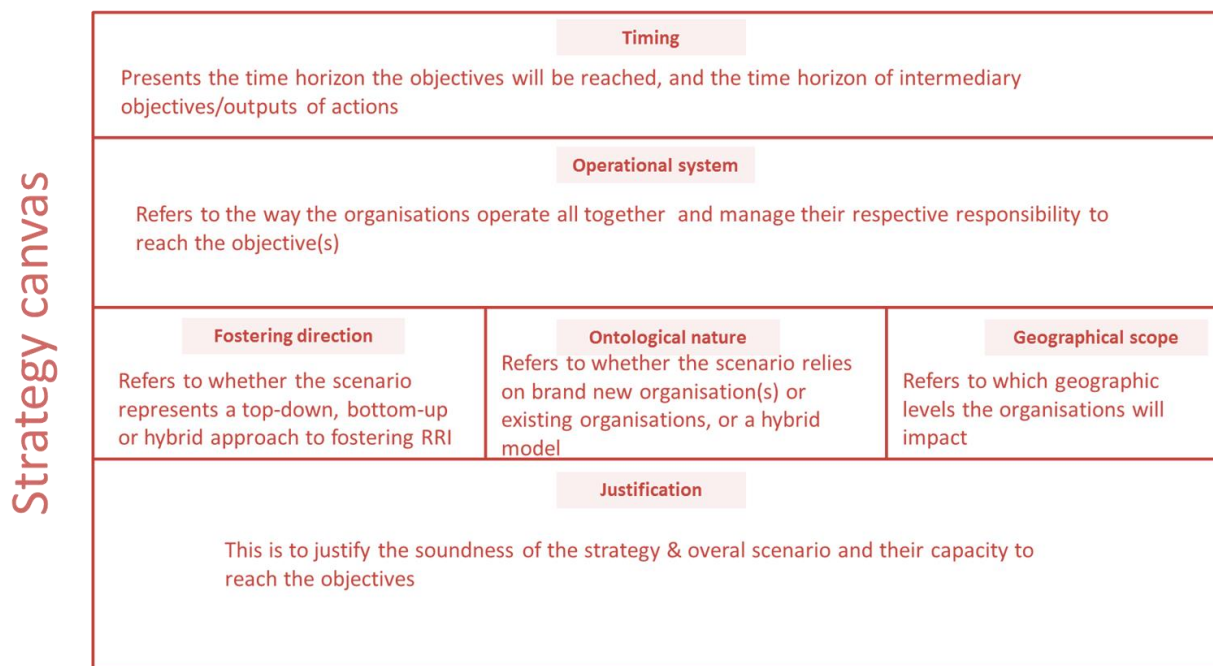


Figure 7: The scenario's strategy canvas to foster RRI

The activity model canvas (Figure 8) aims to capture information on how each organisation will sustain itself economically while fulfilling its mandate. This canvas helps synthesizing and describing the way the organisation will tackle the failures of the current R&I system in a responsible way while sustaining itself through time.

The different elements explored in this canvas can be divided into four blocks: the target block, the activity block, the economic block and the organisational block. The target block aims to identify the problems in the R&I system that will be addressed by the activity model, the mandates of the organisation linked to this activity model and the target actors and beneficiaries. The activity block focuses on the activities that must be done to fulfil the mandates and the assets and partnerships that can support those activities. The economic block constitutes the balance between what the organization needs to fulfil its mandate and what it gains from it. Lastly, the organizational block describes how the activity model function through time and the nature of the organization.

Activity model canvas

Key assets Assets, either tangible or intangible that the organisation needs to carry out all activities and reach the target actors and address the R&I pain points	Mandates The mandates are the main action lines that allow the organisation to offer an answer to the R&I pain points. Explain how the mandates are linked with the objectives of the scenario.	R&I pain points Problems of the R&I system this activity model tackle
Key partnerships Actors that support the organisation for doing the activities that it cannot do itself	Activities Specific actions that are carried out to fulfil the mandates. Explain how the activities are linked with the objectives of the scenario.	Targets and value added for beneficiaries Actors who are addressed or are beneficiaries. For those, indicates the added-value gained
Running resources Resources the activity model needs to sustain itself	Economic exchanges Cover all exchanges that take place between the organisation and beneficiaries. Include remuneration/compensation/valorisation streams when relevant	
Operational form Way the organisation is organised to carry out the activities and fulfil the mandate		

Figure 8: The scenario's activity model canvas

Finally, all scenarios had to be visually represented to illustrate all the expected interactions and exchanges among the key stakeholders, as shown in Figure 9.

Visual representation (example)

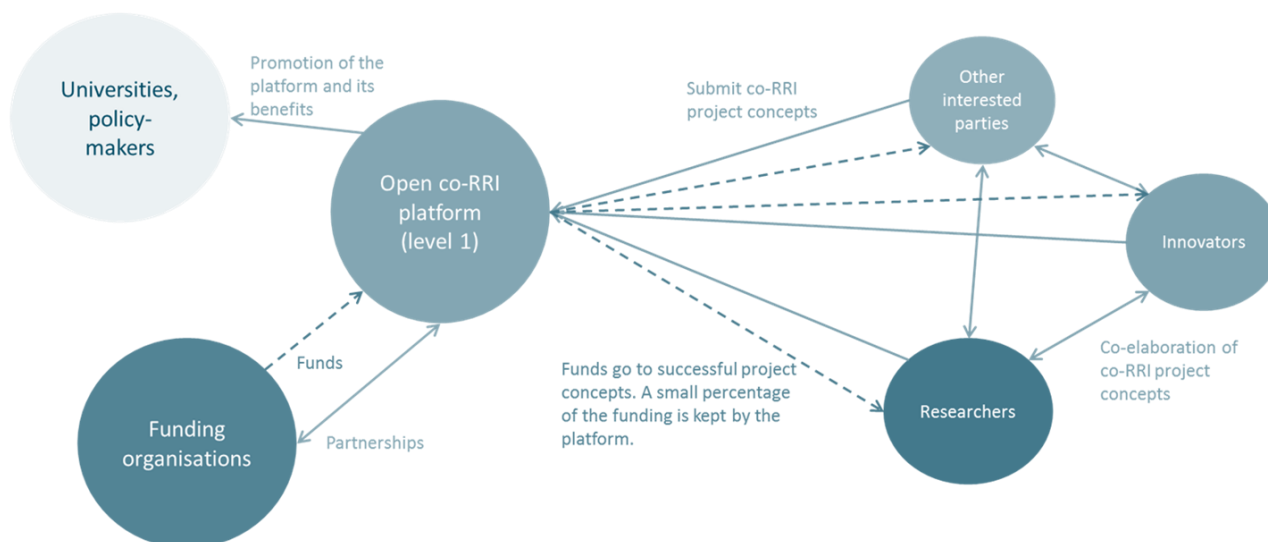


Figure 9: The scenario's visual representation

Possible scenarios

The ‘toolkit’ provided a total of eleven scenario ideas to inspire partners in the development of their competence cells’ scenarios. The examples of possible scenarios are as follows:

1. “The European approach”

This is a top-down scenario in which the objective is to convince the European Commission of adopting co-RRI principles and methods. This requires an important lobbying action until the EU adopts co-RRI as the ‘new way’ of doing research. A ‘co-RRI’ lobbying organisation could be created to do lobby both at national or even regional level.

2. “The loose network of competence cells”

In this scenario the competence cells establish different hubs and their mandates vary according to the context, capabilities and desires of their members. Then there are two possibilities:

- A co-RRI charter is established to guide all competence cells and preserve the core values. New competence cells can join the network if they respect the charter as well.
- All competence cells are within an association. The association is quite loose, with annual meetings and some collaboration but the cells are quite autonomous. For organisations that would like to be part of the network and claim themselves competence cells, they must become part of the association (the legal nature of the association is yet to be decided).

3. “Open co-RRI platforms”

This scenario is based upon an open innovation and funding platform called ‘Open co-RRI’ platform. Researchers and other actors can collaborate online to develop co-RRI project concepts. They can then submit their concept to the platform. The platform evaluates the concepts according to a co-RRI evaluation grid. The concepts that successfully pass the evaluation are guaranteed to be funded.

4. “Matchmaking for co-RRI skills and services”

A matchmaking organisation allows services and skills for CO-RRI projects to be exchanged for a virtual coin or other services and skills. The matchmaking organisation allows various people, with an interest in Co-RRI to meet and exchange services and skills.

5. “Co-RRI through CSR”

An advisory organisation will develop CO-RRI projects in partnership with enterprises and will be remunerated for the design and coordination of CO-RRI projects within the private sector. The advisory organisation can establish partnerships with research institutions to provide their co-RRI services.

6. “The responsible crowdfunding platform”

In this scenario, an online platform is developed to showcases co-RRI project concepts. The crowd funds the project concepts it likes most.

7. “The So Science model”

This scenario builds on the example of the French social start-up ‘SoScience’. This start-up proposes to match social entrepreneurs and research centres to help the social entrepreneurs to develop their activity in a responsible way. This could be one activity for the competence cell, or their sole activity.

Another option is that an association of ‘co-RRI’ experts develops and sells matchmaking services between social entrepreneurs and research centres and provide ‘co-RRI’ guidance.

8. “The organised infiltration”

This scenario relies on a ‘co-RRI organization’. This organization works on the promotion and progress of co-RRI. Its main activity consists in establishing co-RRI units within existing organizations, to provide guidance to these new units and ensure that they follow RRI principles.

9. “The responsible research network”

The objective of the scenario is to sustain an international research network that carries out responsible research. The overall organization is similar to that of the ‘Future Earth’ network with the researchers belonging to various research institutions. A conceptual framework guides the research network towards addressing key research challenges.

10. “The RRI summer school”

In this scenario, an organization is created which proposes ‘co-RRI summer schools’ where co-RRI principles and methods are taught to those interested.

11. “Co-RRI labs”

This scenario builds on the ‘Fablab’ model. A central coordination organisation will provide a toolkit with guidelines, material & training that allows the creation of competence cells and hubs within research institution or other places. A charter will ensure that the new competence cells respect a minimum of requirements.

The central organisation ensures that the toolkit is available online and that it is easily accessible for anyone that wants to build a competence cell. The new competence cells must abide by the charter but they are free to develop their own activities, if they are aligned with the charter.

The presentation of possible scenarios

The co-RRI labs, open co-RRI platform, matchmaking for co-RRI skills & services, and co-RRI through CSR scenarios were illustrated through the four constituting elements of a scenario (high-level description (Figure 10), strategy (Figure 11) and activity (Figure 12) model canvases, and the visual representation (Figure 14)), while only a brief description was provided for the others as it is shown below with the examples of the matchmaking and the loose network of competence cells scenarios.

High-level description canvas

Matchmaking for co-RRI skills & services

Brief description of the scenario <p>A matchmaking organisation allows services & skills for CO-RRI projects to be exchanged for a virtual coin or other services and skills. The matchmaking organisation allows various people, with an interest in Co-RRI and different skills, to meet and exchange services and skills.</p>	
Main lines of action <p>This scenario is positioned within the research value chain at: Collaborating with other researchers to develop new knowledge and open new fields, advancing one's career, co-RRI research</p>	High-level objectives <ul style="list-style-type: none"> - Create a community of skilled persons in co-RRI - Favour the development & uptake of co-RRI projects
Organisations, targets, partners and levels <p>This is a two levels system:</p> <ol style="list-style-type: none"> 1. Function= matchmaking. Organisation= matchmaking organisation 2. System level <p>Partners: Research institutions from where researchers could be recruited. The target actors are only the beneficiaries, which are the people that will exchange skills & services.</p>	Motivations <p>Motivations of beneficiaries: people will exchange their skills and the skills they need allowing them to fulfil CO-RRI project needs. Motivations of the matchmaking organisation: offer an alternative of responsible 'co' llaboration</p>

Figure 10: Matchmaking for co-RRI skills & services - High-level description canvas

Matchmaking for co-RRI skills & services

Strategy canvas

Timing <p>The matchmaking organisation could start with a pilot project. If it is successful, a significant number of exchanges could happen in the first two years after the completion of the pilot project.</p>		
Operational system <p>The matchmaking organisation promotes CO-RRI and at the same time it coordinates the exchanges of CO-RRI skills and services among the beneficiaries. To make sure demand and supply are met it is important to continuously recruit new users to become part of this matchmaking place.</p>		
Fostering direction <p>This is a bottom-up approach, since it does not rely on government bodies</p>	Ontological nature <p>This scenario requires to create a new 'matchmaking' organisation</p>	Geographical scope <p>Initially regional, then national, and then European.</p>
Justification <p>This scenario gives a remuneration/ incentive to researchers participating in CO-RRI, also it eases the access to RRI skills. In that way, it fosters CO-RRI projects uptake.</p>		

Figure 11: Matchmaking for co-RRI skills & services - Strategy canvas

Matchmaking for co-RRI skills & services

Activity model

There are two levels in this scenario:

- Level 1: Function= matchmaking. Organisation= matchmaking organisation
- Level 2: system level

Therefore, only one activity model is represented, that of the matchmaking organisation.

Figure 12: Matchmaking for co-RRI skills & services - Activity model

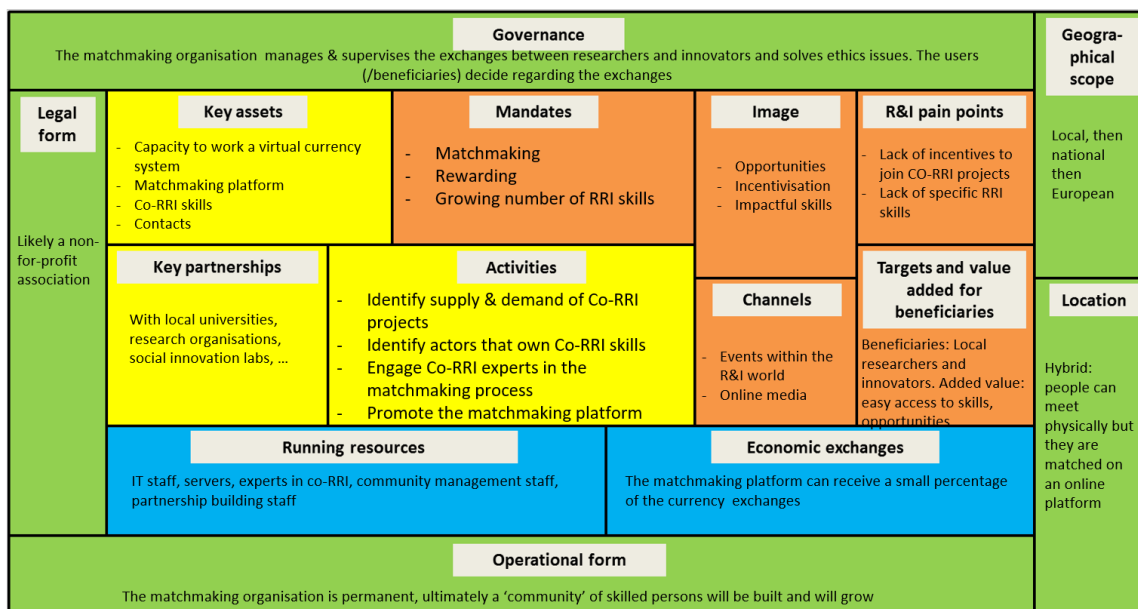


Figure 13: Matchmaking for co-RRI skills & services – Activity model canvas

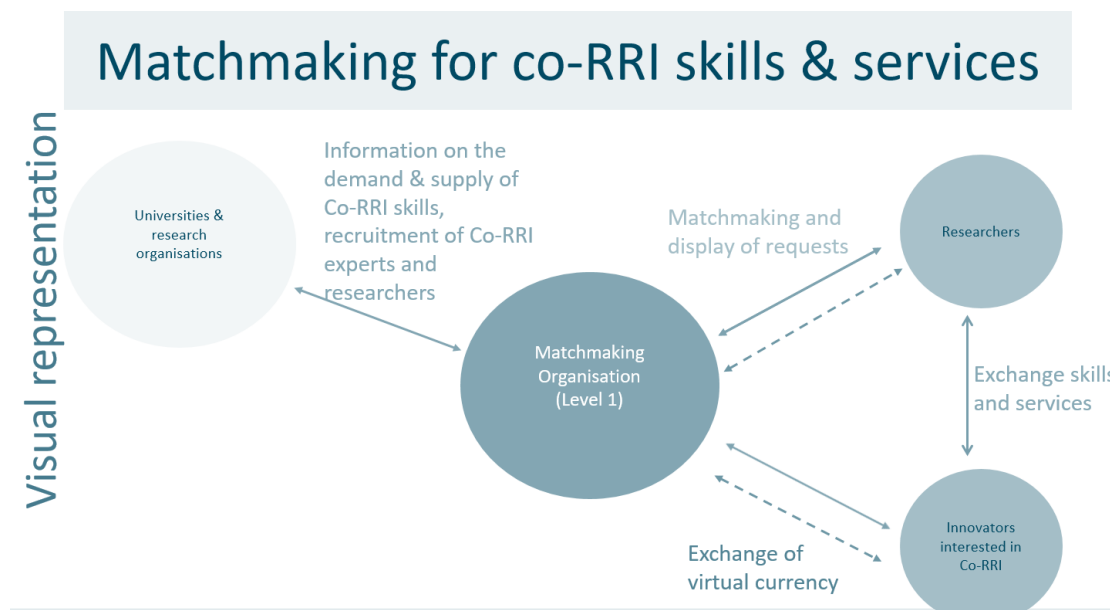


Figure 14: Matchmaking for co-RRI skills & services – Visual representation

The loose network of competence cells

This scenario is similar to the current one: competence cells establish hubs. Their mandates vary according to the context, capabilities and desires of their members. Then there are two possibilities:

- There exist a co-RRI charter and each competence cell, to claim the name of 'co-RRI competence cell', must abide by the charter. New competence cell can join the network if they respect the charter as well. This way key RRI elements exist in each competence cell but they can also make their own choices
- All competence cells are within an association. The association is quite loose, with annual meetings and some collaboration but the cells are quite autonomous. For organisations that would like to be part of the network and claim themselves competence cells, they must become part of the association (the legal nature of the association is yet to be decided).

Figure 15: The loose network of competence cells – General explanation

Options for the scenarios

Within the 'toolkit' many options for each part of the scenario were proposed. The aims were to support partners in the scenario building exercise and give them the option of using these examples as 'bricks' for their own scenarios.

Figure 16 provides a summary of the [options suggested for the strategy part of the scenarios](#). It includes suggestions on the fostering direction, the ontological nature and geographical scope of the organisation.

Options for strategy

Fostering direction

- Top-down. A top-down approach would mean that RRI is implemented by existing R&I powers (ministries, EU research programmes, etc.)
- Bottom-up. A bottom-up approach does not rely on existing powers. Fab-labs model is bottom-up.
- Hybrid (a combination of both approaches)

Ontological nature

- New organisation. A new organisation would mean that we create something completely new.
- Infiltration. This means that we would not create something new but that we would rely on existing organisations, favourable to co-RRI approaches.
- Hybrid (a combination of both)

Geographical scope

- Local/regional
- National
- EuropeanA
- International
- Hybrid (more than one)

Figure 16: Options suggested for strategy

As shown in Figure 17, partners could pick from a **list of suggestions the mandate** on which the scenario would be based on.

Options for mandate

- Provide methods, tools, skills for RRI
 - For each type of actor involved in the R&I value chains
 - For each R&I activity
- Enforce RRI
- Govern R&I system
- Research on RRI itself
- RRI (research and innovation processes that are responsible)
- Promotion of RRI
- (Alternative) RRI funding
 - RRI funds
 - New metrics for proposal funding taking into account RRI characteristics
- Support to RRI development and implementation
- Mediation & catalyse

Figure 17: Options suggested for mandate

Figure 18 presents all the ideas suggested for **the activities** that could be carried out by the competence cells in a given scenario.

Option for activities

- Training
- Sourcing of non-traditional sources of information and knowledge
- Participating pro-actively in debates on R&I policy.
- Assisting funding organisations in defining appropriate criteria for the funding of Co-RRI projects.
- Communicating to competent authorities about the barriers Co-RRI projects face.
- Presenting the competence cell's activities and achievements at (international) conferences, colloquia, workshops, etc.
- Making the competence cell visible in various (popular) media.
- Certifying researchers that have successfully completed a course, for instance a MOOC, on Co-RRI.
- Certifying facilitators as qualified for enabling people to work according to Co-RRI standards.
- Networking
- Matchmaking of skills, competences
- Project matchmaking
- Crowdsourcing
- Design research projects
- Coordinate collaborative proposals
- Courses and workshops on CO-RRI (training on RRI, ethics, privacy concerns)
- Consulting for enterprises that want to develop CO-RRI projects
- Community building
- Support to responsible entrepreneurship
- Service to ministries
- Support to meet RRI criteria in proposal building
- Marketing of RRI solutions
- Conflict management
- How to work collaboratively, and be open-minded even though it's a political concept, etc.
- Certification/label accreditation
- Strategic action to foster RRI even more

Figure 18: Options suggested for activities

A list of **assets and partners** was provided as well to facilitate the exercise of scenario building (Figure 19).

Options for key assets & partners

- Online platform
- P2P tools (blockchain, OPPLA)
- Institutionalisation tools
- Specific knowledge & skills
 - Capacity to elaborate policy recommendations
 - Ability to create a certification/standard
 - Capability to work with alternative currencies
- Specialisation in research funding
- Access to latest insights on (co-) RRI
- Educational resources
- Certifications
- Contacts
- Up2Europe
- Other market places
- Science shops
- Universities
- Higher institutions already working on ethics, developing RRI
- Civic techs
- Ministries
- EU programmes & next frameworks programme
- NGOs
- JPI / FACCEJPI
- Force II, SPARC, So-Science, ARTS
- Funding agencies

Figure 19: Options suggested for key assets and partners

A vast list of ideas on **economic exchanges** was provided. Figure 20 represents one third of this list, the rest of the suggestions are available in Annex 3

Options for economic exchanges - 1

We include in economic exchanges all types of exchanges that take place between the organisation and beneficiaries (a beneficiary is defined as benefitting from the activities carried out).

One major point in the economic exchanges is to define whether they will be **open or closed**, or **hybrid** (a mix of both). An open model allows several parties to work / do things together; in a closed model, no external party can participate in the work carried out by the organisation, it can benefit from it (by buying a service, a product for e.g.) but that is all. The open models are:

- The contribution model. This is the Wikipedia model: several parties contribute for 'free', no profit is made whatsoever. The model's viability is weak and relies on funding and donations
- The hybrid model. This case is the mix of a contribution model with a 'for-profit' model. The revenues of the 'for-profit' activities ensure the viability of the activities made under the contribution model.
- Dual. This is the 'freemium' model. One part of what is produced collaboratively is offered for free to certain users and against payment for other types of users; or, one part is offered for free, while upgrades are offered against payment.

Figure 20: Options suggested for economic exchange – 1

Lastly, other ideas were given about the **other components** of an activity model. Figure 21 represents one third of this list, the rest of the suggestions are available in the Annex.

Other options for the activity model - 1

Legal form

- State-based
 - Within the 'usual suspects' of R&I system (e.g. universities; government agencies; ...)
 - Independent
- Non state-based (company, association,)
- Public Common Partnership (like a Public – Private partnership but with a 'common'-based organisation instead of a private one)

Governance

- Top-down. The activities are decided upon by the hierarchy of the organisation
- Bottom-up. All activities are decided with all relevant parties
- Hybrid (both)

Location

- Physical. In an office; a classroom...
- Online. Website, platform...
- Hybrid (both online and physical)

Geography

- Local/regional
- National
- European
- International
- Hybrid

Operational form

- Temporary (e.g. summer school)
- Permanent
- At all level but the first, if there are different organisations within the level: homogeneous/heterogeneous
This indicates whether the organisations at a given level do exactly the same things or not
- Community
- Autonomous organisation(s)

Figure 21: Options suggested for the activity model – 1

Two partners utilised the 'toolkit' to build possible scenarios for their competence cells.

2.3.7 Final template

The ‘toolkit’ methodology evolved in order to meet the objective of this task. A final template has been developed with the ambition of providing a framework to all partners to explain their competence cells short and long-terms activity models.

As we have decided to replace the term business model by activity model, we have chosen the following definition of an activity model, to fit FoTERRIS’ needs:

“An activity model is a conceptual tool that contains a set of elements and their relationships and allows expressing a competence cell’s logic of being economically viable while fulfilling its mission. It is a description of the missions a cell embodies, to make change in the R&I landscape and foster a transition towards co-RRI system. It is also a description of the architecture of the cell and its network of partners for creating, communicating and delivering activities’ outputs, so as to fulfil the mission while being economically viable”.

A slightly different activity model canvas has been developed for the final template based on the different canvas that were used in the ‘toolkit’. Figure 22 shows the constituting blocks of the **final activity model** canvas.

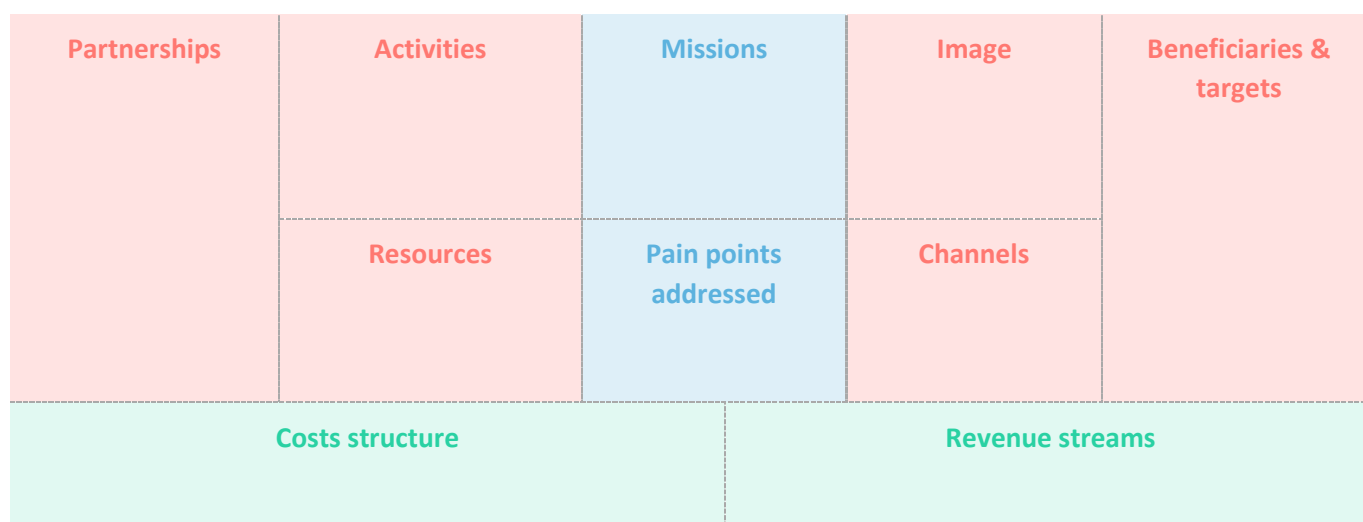


Figure 22: Final template’s activity model canvas

Explanations of key terms & guidelines:

- **Missions:** refer to what changes your competence cell is wanting to make in the R&I landscape. Clarify at which level these changes will happen. Frame your mission(s) in terms of desirable outputs / processes that are brought to the R&I landscape, to make it change and/or to benefit directly actors concerned by R&I.
- **Pain points addressed:** refer to current problems your missions aim to solve.
- **Image:** refer to how you want other actors, people perceive your cell (lobbyist, expert centre, facilitator, etc.)
- **Beneficiaries:** people that benefit from your missions/activities. For e.g.: if you help researchers to make co-RRI proposals, then the researchers are your beneficiaries.
- **Targets:** people that are targeted by your missions/activities, but that do not benefit (in the positive sense) from these. For e.g. if you lobby, then your target is the policy-maker to which you lobby.

- **Channels:** Channels are means and infrastructures to reach your targets/beneficiaries and communicate about your cell's existence. For e.g. if you help researchers to make co-RRI proposals, then some of your channels could be a website to advertise your service.
- **Relationships:** Relationships describe the way you interact and maintain a relation with your beneficiaries and targets.
- **Activities:** Activities that are necessary to fulfil your mission(s). For e.g. if one of your missions is to increase co-RRI capabilities, then one of your activities can be "setting a Mooc on co-RRI", another can be "writing a book on co-RRI". Distinguish between *core activities*, that are directly related to your mission(s), and *supporting activities*, which support the cell's existence but do not contribute directly to the mission(s) (e.g. communication, management, etc.).
- **Resources:** all resources that are needed for implementing your activities.
- **Partnerships:** partnerships are relationships that you establish with other organisations/people, in order to (help your cell) create / deliver outputs with them / thanks to them.
- **Costs structure:** refer to all the costs incurred by running your cell, and how they are structured (timing)
- **Revenue streams:** usually used to design commercial revenues, here the revenue streams will also include funding & donations. Refer to what you get for sustaining your cell.

The Final template was structured in six sections as follow:

- Mission
 - Context and problems addressed
 - Vision
 - Mission
- Overview of the activity models
 - Short-term activity model
 - Long-term activity model
- Details of the short-term activity model
 - Core activities
 - Support activities
 - Platform activities and maintenance – for UCM only
 - Channels
 - Partnerships
 - Viability
 - Assessment of the short-term activity model
- Details of the long-term activity model
 - Core activities
 - Viability
 - Assessment of long-term activity model
- Path from the short-term to the long-term
 - Actions
 - Process and feasibility
- Conclusion

Partner were asked to complete the new activity model canvas following the terms and guidelines included in the instructions of the Final template. [The whole template is included in Annex 2.](#)

3 Austrian competence cell (IFZ)

3.1 Mission

Context & problems addressed

In Austria the R&I landscape in general is highly competitive, which makes it difficult for the individuals to leave the mainstream path, but also for organisations, who compete for funding and economically relevant outputs. While it is hard to publish no-mainstream R&I, more resources and time, and less academic acknowledgement are needed for developing it.

The Austrian competence cell (CC) aims to target two **problems**:

- **Little awareness about transdisciplinary research**: R&I still puts too little emphasis on tackling grand challenges with a focus on sustainability by means of acknowledging planetary ecosystem boundaries and global justice in a transdisciplinary manner (integration of diverse types of knowledge-holders; Quadruple Helix approach).
- **Lack of room and capacities for Co-RRI**: Co-RRI needs specific spaces, which allow knowledge exchange, experimental and flexible processes that are usually not in line with mainstream R&I processes. Often, classical R&I institutions do not welcome such type of projects. Therefore, the skills, expertise and the support structure for the implementation of co-RRI are missing.

Vision

The vision of the Graz competence cell is that the local R&I system becomes able to elaborate sustainable and socially just solutions by means of tailored, transdisciplinary co-RRI approaches in order to effectively deal with pressing **societal challenges from the very start (project conceptualisation), as well as, throughout the overall project implementation.**

Mission

The CC will promote a short-term mission of integrating co-RRI as a transversal competence across all research areas within IFZ. The long-term mission is to introduce co-RRI approaches in the R&I landscape of the region of Graz.

The Austrian CC will contribute to enhance the co-RRI-ness of the local R&I innovation landscape and its expected **impacts** are the following:

- **Awareness** about co-RRI and its benefits
- Co-RRI capacities well-developed in the local R&I system
- **New co-RRI projects**
- **Co-RRI projects supported**
- **Co-RRI community**
- **Expertise and experiences shared** with other R&I actors and stakeholders (capacity building).

Since IFZ is an active member of the Austrian RRI-Platform (a network of 8 active member organisations plus approx. 10 participating institutions www.rri-plattform.at), the RRI-unit will continue its networking, awareness raising and lobbying work for knowledge exchange and for promoting RRI also on the national level (and beyond, since the Austrian Network is also in contact with the international RRI-community).

3.2 Overview of the activity model

Brief description:

- The Austrian CC is embedded as a new unit within the private non-profit research organisation IFZ-Interdisciplinary Research Center for Technology, Work and Culture. Thus, it is part of an existing organisation, which means that it is subject to the same conditions other research units at IFZ are.
- The “headquarter” will be based in Graz, and the main focus of activities will be within the regions of Graz, as the IFZ is well networked in this area, which makes the involvement of various actors easier. However, actions do not necessarily need to be restricted to this geographical scope but might also be extended to the national level as well as beyond to other German speaking countries. Further engagements in EU-level projects are also envisaged.

Main objectives and main delivery:

- The CC is aiming at supporting the conceptualisation and implementation of co-RRI activities by means of facilitation, training, and joint R&I activities, for IFZ colleagues as well as for “external” organisations, such as academic and private R&I institutes, community groups, etc. The thematic fields to be covered will mainly correspond with the thematic areas investigated at IFZ (Energy & Climate, Ecological Product Policy, Food Systems, Modern Biotechnology, Women – Technology – Environment), since the CC can easily link with established networks (academia and stakeholders) and make use of established cooperation.
- The CC will act proactively by developing co-RRI project concepts in cooperation with IFZ staff and other relevant actors (academic and non-academic), and the CC will be available for services on demand from anybody outside the IFZ (other R&I organisations and various stakeholders, such as CSOs, businesses, governmental institutions, education institutions, etc.). The project proposals will be submitted to regional, national and European funding programmes.
- The CC will support capacity building by passing on RRI process skills to colleagues at IFZ, and other interested researcher (e.g. visiting fellows, researcher from Graz University of Technology).
- Moreover, the CC will promote RRI by introducing the concept in teaching courses at Alpen-Adria Universitaet Klagenfurt I Vienna I Graz, at Karl-Franzens University, and at the Graz University of Technology.

Financial viability:

- Costs for the basic operation of the CC will be covered by the basic funding of IFZ (to the same extent as other research units at IFZ do). This includes personnel costs as well as infrastructure and administrative support.
For any other activities, additional funding will be needed, e.g. project grants, honorariums or donations. Financial viability is always given as the CC needs to follow the IFZ rule of cost effectiveness.

Organisation and basic values of the CC:

- The basic structure is 3 IFZ employees, who will represent the core of the CC staff, and who also work in other research units at IFZ. One of them holds the coordination and management of the CC. The CC will closely work together with other research units at IFZ and the management board, and in case of need other people from the IFZ staff will be consulted or engaged for co-RRI activities.
- The strategic orientation of the CC will be developed by the CC core team in consultation with the IFZ management board. Decisions about which activities the CC will engage in will be taken by the CC core team. All activities will be in line with the mission of tackling societal relevant challenges in transdisciplinary, co-creative multi-actor processes under particular consideration of sustainability and social justice.

Partnerships	Activities	Missions	Image	Targets
IFZ (including IAS-STS unit) Austrian RRI-Platform FoTERRIS CCs Universities (AAU, KFU, TUG)	Designing tailored co-RRI concepts Develop on-demand services Facilitating co-RRI implementation Seminars, courses, lectures, trainings Communication about co-RRI Networking	Integrating co-RRI as a transversal competence across all research areas within IFZ and introducing co-RRI approaches in the R&I landscape of the region of Graz by: Awareness raising for co-RRI and its benefits (support for the) Conceptualisation and implementation of co-RRI Sharing of expertise and experiences on co-RRI Community building	Expert centre Facilitator Lobbyist for more responsible R&I Intermediary linking different actor groups	Quadruple helix actors from various thematic fields (Energy & Climate, Ecological Product Policy, Food Systems, Modern Biotechnology, Women – Technology – Environment). Beneficiaries Colleagues at IFZ & consortium partners (in case of collaborative projects) People from other R&I organisations Members of the Austrian RRI-Platform (the members are 8 private R&I organisations, and institutes from 2 public Universities: 1 faculty, 2 institutes).
	Resources Skilled personnel (RRI, system thinking, teaching, social media – 3 fixed staff for the short-term, more in the long-term). Infrastructure Communication channels Other materials Support from other IFZ employees	Pain points addressed Lack of research funding, explicitly aiming and supporting RRI processes. Stakeholders are not involved in participatory processes as early as they should Social justice is not yet a crucial part of sustainability research	Channels IFZ website social media e-mail seminars/ workshops/ meetings lectures conference sessions public events publications Press releases Austrian RRI platform Virtual platform	
Costs structure Personnel costs, infrastructure, administrative support, (financial) compensations for participants, other costs (e.g. related to event implementation), travel costs Costs for basic operations are covered by IFZ (basic funding) All costs incurring related to ‘substantial’ work need to be covered by additional project funding or honorariums Compensation for engaged actors, who do not receive salaries from the project money		Revenue streams Projects funding Honorariums for services Fees for trainings Donations Participation fees		

Figure 23: Graz region activity model canvas

3.3 Details of the activity model

3.3.1 Core activities

Support for co-RRI implementation

Description, purpose & output	<p>Offering support for the development and implementation of co-RRI activities within IFZ-run projects and to external partners:</p> <p>Some of the research projects implemented at IFZ already show RRI elements. However, there is potential to increase the RRI^{ness}¹ of the Projects carried out by IFZ, thus the CC will support other IFZ colleagues in identifying ways of bringing more RRI^{ness} into projects. This will be done by checking already ongoing projects and offering support for the implementation of co-RRI activities, as well as in the conceptualisation of new projects (e.g. project proposals). Services comprise:</p> <ul style="list-style-type: none"> • Designing tailored co-RRI processes • Facilitating the implementation of co-RRI processes • Support for already ongoing projects to introduce RRI-elements • Evaluation of co-RRI processes <p>The same services will be offered to non-IFZ members either through project engagement as partners or as paid service.</p>
Beneficiaries	<ul style="list-style-type: none"> • Colleagues at IFZ & consortium partners (in case of collaborative projects) • People from other R&I organisations
Targets	<p>Stakeholder & actors from the respective research areas of IFZ:</p> <ul style="list-style-type: none"> • Energy & Climate • Ecological Product Policy • Food Systems • Women – Technology – Environment • Modern Biotechnology
Channels	<ul style="list-style-type: none"> • Workshops • Meetings • Website • Social media • E-mail • Presentations at conferences • Organisation of conference sessions • Publications • Press releases
Relationship	<p>Beneficiaries:</p> <ul style="list-style-type: none"> • Ongoing cooperation based on openness and co-creation • Compensation: <ul style="list-style-type: none"> ○ Salaries (project funding) ○ Value of learning/capacity building

¹ The term RRI^{ness} has been created following an expert interview (in WP1 of FoTERRIS), where the interviewed scholar referred to the vision of a degree of 'RRI-ness' in contrast to a binary view of either doing RRI or not.

	<p>Targets:</p> <ul style="list-style-type: none"> • Punctual cooperation during stakeholder processes based on openness and co-creation; • Compensation: <ul style="list-style-type: none"> ○ Monetary compensation ○ Immaterial: treating their concerns
Resources	<ul style="list-style-type: none"> • Skills & knowledge: <ul style="list-style-type: none"> ○ content knowledge on IFZ-research themes, ○ RRI skills (facilitation-skills, experience in participatory activities, experiences in inter- & transdisciplinary activities ○ system knowledge: knowledge about relevant actors, their needs & expectations, organisations, language, knowledge about their work context (e.g. activities, processes, daily routines) • Human resources: <ul style="list-style-type: none"> ○ Internal: 3 fix staff members covering the competencies mentioned above ○ External (partnership): members of the RRI platform, other cells • Materials / infrastructures: rooms, material to facilitate workshops, communication infrastructure
Partnerships	<ul style="list-style-type: none"> • IFZ (always) • On demand: <ul style="list-style-type: none"> ○ RRI platform: RRI expertise national ○ FoTERRIS- competence cells: for the international context
Costs	<ul style="list-style-type: none"> • Personnel costs for CC members • Other costs for materials and infrastructure • Compensation for engaged actors, who do not receive salaries from the project money <p>The costs will incur during the whole Project duration.</p>
Revenue streams	<p>IFZ is serving for the common good, and is not allowed to generate profit, but all work can only be implemented cost effectively. – All activities are following this model, this will also apply for the activities carried out by the co-RRI unit.</p> <p>Mix of revenue sources:</p> <ul style="list-style-type: none"> • Basic funding for IFZ, which all units benefit from (annually). • Project funding (according to the respective funding schemes) • Honorariums for single services (paid by those, who commissioned the services – based on a contract) <p>Costs never must exceed revenues, because this is not in line with the IFZ business model. Cost-effectiveness needs to be given for every activity.</p>

Seminars for passing-on RRI knowledge

Description, purpose & output	Seminars held every two months (started in January 2018): The purpose is to raise awareness for Co-RRI, and to share knowledge & experiences with IFZ-colleagues and other research fellows.
Beneficiaries	Colleagues at IFZ, research fellows from the Institute for Advanced Studies in Science and Technologies – IAS-STIS, and colleagues from the Science, Technology and Society Unit, Institute of Interactive Systems and Data Science, Graz University of Technology
Channels	<ul style="list-style-type: none"> • Seminars • E-mail
Relationship	<ul style="list-style-type: none"> • Ongoing cooperation based on openness and co-creation • Compensation: <ul style="list-style-type: none"> ○ Value of learning/capacity building
Resources	<ul style="list-style-type: none"> • Skills & knowledge: knowledge about theory and practices of co-RRI • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): 1 staff member covering the competencies mentioned above
Partnerships	<ul style="list-style-type: none"> • Materials / infrastructures: room, communication infrastructure • IFZ (always) • IAS-STIS (Institute for Advanced Studies on Science, Technology and Society) researchers • Researcher from the Science, Technology and Society Unit
Costs	<ul style="list-style-type: none"> • Personnel costs for CC members <p>The costs incur for the preparation and during the seminar implementation.</p>
Revenue streams	<ul style="list-style-type: none"> • Cost effective coverage through basic funding for IFZ.

Passing-on RRI knowledge via teaching courses

Description, purpose & output	<p>All CC members have regular teaching contracts with the Alpen-Adria University (AAU), the Karl-Franzens University (KFU), and the Graz University of Technology (TUG).</p> <p>In the scope of these teaching courses, which are offered to students from various disciplines, the concept of co-RRI and/or methods how to implement this approach will be introduced.</p>
Beneficiaries	Students from the three Universities mentioned above.
Channels	Teaching courses
Relationship	<p>Beneficiaries:</p> <ul style="list-style-type: none"> • Interactive learning • Compensation: <ul style="list-style-type: none"> ○ Course credits ○ value of learning/capacity building

Resources	<ul style="list-style-type: none"> • Skills & knowledge: <ul style="list-style-type: none"> ◦ Co-RRI (theory and practice) ◦ Teaching/didactical competencies • Human resources: <ul style="list-style-type: none"> ◦ Internal: 3 fix staff members covering the competencies mentioned above • Materials / infrastructures: rooms, material to implement courses
Partnerships	<ul style="list-style-type: none"> • IFZ • Universities (AAU, KFU, TUG)
Costs	<ul style="list-style-type: none"> • Personnel costs for CC members, who give the courses <p>The costs will incur during the whole course duration.</p>
Revenue streams	<p>Costs are covered by the Universities, which commission the courses.</p>

Community building through the Austrian RRI platform

Description, purpose & output	<p>The CC members are regularly participating in the meetings of the Austrian RRI platform in order to:</p> <ul style="list-style-type: none"> • Exchange knowledge on RRI • Bundle resources within the Austrian RRI-community • Plan joint events, such as seminars, lectures, (joint panels at) conferences • Lobby for RRI at national funding organisations
Beneficiaries	<ul style="list-style-type: none"> • Members of the Austrian RRI-Platform (the members are 8 private R&I organisations, and institutes from 2 public Universities: 1 faculty, 2 institutes).
Targets	<ul style="list-style-type: none"> • Research funding organisations • Other R&I organisations (private and public) • Stakeholder & actors from various research areas
Channels	<ul style="list-style-type: none"> • Workshops • Meetings • IFZ website • Social media • E-mail • Conference sessions • Public events • Publications • Press releases
Relationship	<p>Beneficiaries:</p> <ul style="list-style-type: none"> • Ongoing cooperation based on openness and co-creation • Compensation: <ul style="list-style-type: none"> ◦ Salaries ◦ value of learning/capacity building <p>Target:</p> <ul style="list-style-type: none"> • Punctual cooperation during stakeholder processes based on openness and co-creation; • Compensation: <ul style="list-style-type: none"> ◦ Value of learning

Resources	<ul style="list-style-type: none"> • Skills & knowledge: <ul style="list-style-type: none"> ○ RRI related • Human resources: <ul style="list-style-type: none"> ○ Internal: 3 fix staff members covering the competencies mentioned above ○ External (partnership): staff of the Austrian RRI-platform • Materials / infrastructures: travel costs, rooms, material to implement activities (see above), communication infrastructure
Partnerships	<ul style="list-style-type: none"> • IFZ (always) • RRI platform
Costs	<ul style="list-style-type: none"> • Personnel costs for CC members • Membership fee
Revenue streams	<p>All activities are carried out are in line with cost effectiveness.</p> <p>Mix of revenue sources:</p> <ul style="list-style-type: none"> • Basic funding for IFZ (including for the membership fee), which all units benefit from (annually). • Project funding / honorariums (according to the respective funding schemes) in case of extensive activities (e.g. events).

3.3.2 Support activities

Communication trough social media

Description, Purpose	Communicating news via the IFZ-Website, Newsletter, Twitter, Instagram, about RRI activities in order to inform about the CC's activities and to showcase how R&I can be made more responsible.
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: social media skills • Humans: <ul style="list-style-type: none"> ○ Internal: CC members holding the necessary skills ○ External: support from other IFZ personnel • Materials / infrastructures: computer, internet, cell phone
Costs	<ul style="list-style-type: none"> • Personnel costs • IT costs
Revenue streams	<p>All costs are covered by IFZ basic funding (same as for communication activities of other IFZ-units).</p> <p>Activities will be implemented in line with cost-effectiveness.</p>

Management

Description, Purpose	Management, strategic planning and coordination of all activities carried out by the CC. As most of the CC's day-to-day work will be financially covered by IFZ basic funding, its management will include regular meetings with the IFZ management board
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: experience in management and the coordination of a (research) unit • Humans: <ul style="list-style-type: none"> ○ Internal: 1 CC member ○ External: IFZ management board <p>Materials / infrastructures: rooms, computer, internet, cell phone</p>
Costs	Personnel costs
Revenue streams	<p>All costs covered by IFZ, no additional costs will incur.</p> <p>Activities will be implemented in line with cost-effectiveness.</p>

Administration

Description, Purpose	Administrative work related to running the CC will be the same as for any of the other IFZ research units
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: administrative skills • Humans: <ul style="list-style-type: none"> ○ Internal: CC members holding the necessary skills ○ External: support from IFZ administrative personnel • Materials / infrastructures: computer, internet, cell phone •
Costs	Staff
Revenue streams	<p>All costs are covered by IFZ basic funding (same as for administrative activities of other IFZ-units).</p> <p>Activities will be implemented in line with cost-effectiveness.</p>

3.3.3 Channels

Conferences & Events

Channel	Various scientific conferences and other events
Purpose	Presentations and/or organisation of special sessions
Cost	Participation fees and travel costs.
Rationale	Conferences are one of the main channels of communication within the R&I community, and they also offer good opportunities for informal exchange and networking.

IFZ website

Channel	News section and descriptions of IFZ units
Purpose	Presentation of the CC and its activities, announcements of actual information on the website's news section
Cost	No, additional costs (covered by IFZ)
Rationale	A good way to address researchers and stakeholders the IFZ cooperates with, and other people interested in the topics IFZ works on.

Social media

Channel	Twitter, Instagram, Facebook, IFZ website
Purpose	To disseminate information about the CC and co-RRI
Cost	No additional costs.
Rationale	Social media channels allow for fast and easy distribution of information to a broad audience.

Austrian RRI Platform

Channel	RRI-Platform website, regular newsletter
Purpose	Announcements on the website's news section, in the newsletter
Cost	No, additional costs (covered by the platform membership, which is paid by IFZ)
Rationale	An efficient channel to address the Austrian RRI community, and others, who are interested in RRI.

Workshops, Seminars

Channel	Various types of workshop and seminars with other researchers, stakeholders and students.
Purpose	Workshop and seminars will be used for knowledge exchange, the exchange of experiences and trainings.
Cost	Costs related to the workshop/seminar implementation.
Rationale	Interactive settings, which allow for co-creation are very efficient methods for learning and training activities.

Virtual platform

Channel	Virtual platform or cloud for data storage
Purpose	Sharing of data and information with others
Cost	None, open access sharing platform
Rationale	It allows for granting access to various information to others.

3.3.4 Partnerships

IFZ

Describe your partner and the partnership	The IFZ as hosting organisation is a private non-profit research Organisation, which was founded in the year 1988 with the objective to address technology as a social process and to integrate social issues into engineering studies. Working within the critical areas of a debate between science and policy, reflection and intervention, the prime objective of IFZ today is to contribute to socially and environmentally sound, sustainable and gender-equitable technology design and other types of innovation.
Purpose & implementation	<p>The CC will be embedded in the IFZ equally as the other research units: IFZ will offer its infrastructure and administrative support, and it will cover costs for its basic operation.</p> <p>The CC will work in close cooperation with other IFZ researchers in order to implement co-RRI activities, and the CC can use the IFZ networks for cooperation with other institutions.</p>
Cost	No costs, but financial support.
Rationale	As the mission of the CC fits very well into IFZ's mission, co-RRI will be implemented as transversal competence. Moreover, the IFZ is well established in the regional R&I landscape, which increases the visibility and legitimacy of the CC.

Austrian RRI-Platform

Describe your partner and the partnership	IFZ is a member of the Austrian RRI-Platform (www.rri-plattform.at), which is organised as a private association with 8 active member organisations plus approximately 10 participating institutions (www.rri-plattform.at).
Purpose & implementation	<p>CC members regularly participate in meetings organised by the platform, where knowledge exchange takes place and joint activities are planned:</p> <ul style="list-style-type: none"> • Events • (Policy) lobbying • Training courses • Seminars and lectures • RRI project development <p>Moreover, the platform members hold specific expertise (e.g. ethics, training), which the CC can make use of.</p>

Cost	Annual membership fee (paid by IFZ)
Rationale	<p>The RRI-Platform represents the most important forum for the Austrian RRI-community (see activities above), thus it is essential to be actively involved. Moreover, the platform represents a peer community for reflection, it supports broader dissemination, and it grants better access to certain (policy) stakeholder.</p> <p>Finally, all platform members are well networked with the European RRI community and participate in various EC funded RRI projects.</p>

FoTERRIS CCs

Describe your partner and the partnership	<p>Within FoTERRIS CCs have also been established in Belgium, Hungary, Italy and Spain. The Austrian CC will keep going on to stay in contact with those CCS through informal networking by means of meeting at conferences and other events.</p> <p>Beyond that, contacts will be established on demand, e.g. for joint publications, for setting up joint project proposals, need for specific expertise (content and process related), contacts to stakeholders in other countries. The future partnership is envisaged to become a kind of Community of Practice.</p>
Purpose & implementation	<p>In order to ensure continuous (informal) networking within the FoTERRIS-CCs, the IFZ CC will invite the others every year to jointly organise a session on co-RRI at the annual IAS-STs conference (http://sts-conference-graz.tugraz.at), which is organised by IFZ in cooperation with the Graz University of Technology.</p> <p>The meeting at the IAS-STs conference will be used to update on actual activities, exchange experiences, and to discuss interest in and possibilities for further joint activities, e.g. trainings, events, publications, co-RRI projects.</p>
Cost	No additional costs for the CC as the IAS-STs conference is co-organised by IFZ.
Rationale	Staying in contact valorises the within FoTERRIS established partnership

3.3.5 Viability

Economic balance

Costs	Revenue streams per cost
Cost category 1: costs arising from the CCs daily activities related to the basic operation of the CC (personnel costs, materials costs, ...)	All costs covered by IFZ basic funding
Cost category 2: other activities, which need extra resources, such as bigger events, projects, trainings, etc. (personnel costs, materials costs, travel costs, ...)	Financed via project funding, fees or honorariums

Viability

The basic operation of the CC will be ensured by the basic funding of IFZ, and all other activities will be implemented depending on further funding, and always in line with cost efficiency. As already addressed above, this is the basic rule for all units hosted by the IFZ, and this also applies for the CC.

3.3.6 *Scaling-up*

IFZ – the Interdisciplinary Research Centre for Technology, Work and Culture – is a non-profit scientific association, which was founded in the year 1988 with the objective to address technology as a social process and to integrate social issues into engineering studies. Working within the critical areas of a debate between science and policy, reflection and intervention, the prime objective of IFZ today is to contribute to socially and environmentally sound, sustainable and gender-equitable science and technology. IFZ is mainly financed through research contracts and grants (clients and partners include governmental bodies at municipal, provincial, federal and international level along with research institutions and companies). Furthermore, IFZ receives institutional sponsorship from the Province of Styria and the City of Graz.

The here described activity model of the CC comprises already established processes, strategies and competencies around stakeholder involvement and transdisciplinary research, which have been developed in the past three decades at IFZ. RRI is already integrated as cross-sectional competence and approach, but will be made more visible by adding it as an additional “RRI unit”, relying on researchers with longstanding pedagogical and facilitation competencies as core members of this CC.

Therefore, the long-term activity model will be working and functioning like the previously described short-term activity model, based on the already existing – and for 30 years successful – activity model at IFZ. Thus, the previous description applies both for the short-term and for the long-term activity models.

The only change we might eventually envisage in the long run is that the CC (the RRI unit) will have more staff in addition to the 3 core staff members. Such extension of personnel resources would mostly happen along with additional funding, most likely coming from commissioned projects; a slight extension will also happen through RRI-capacity building among the IFZ staff generally.

To sum up, there will be no changes in regard to the CC legal and organisational structure, its mission and the framing values, its fields of activity and financing, as it is embedded as an RRI unit in IFZ’s overall activity model. The long-term goal is to scale up in terms of increasing the staff of the CC.

3.3.7 *Assessment of the activity model*

Desirability

- Under the framework of the FoTERRIS project, four co-creation workshops were carried out by the Graz region competence cell in which was confirmed the interest of stakeholders to take part in this type of activity. In particular, a Community of Practice (CoP) was established, whose members stated the need for occasions to meet outside their own networks to build such a CoP comprising different perspectives and competences.
- RRI is already implemented as a cross cutting theme at IFZ and will be included in the institute’s mission, reinforcing the strength and cell’s *raison d’être*

Feasibility

- The cell has already most of the required skills, personnel, and materials in house. The rest will be provided by IFZ which is committed to support the cell with resources, infrastructure, communication support, etc. Additional expertise and resources will be provided by partners.

- IFZ has a tradition of participatory and transdisciplinary research, which is a good foundation for the feasibility of today's RRI unit. The RRI unit will share their experiences and competences through workshops, seminars and through training on the job, hence the whole IFZ staff will eventually build their RRI capacities, easing even further the collaboration with the RRI unit and adding-up to the capacity of implementing co-RRI projects and activities.

Viability

- Since the Graz region competence cell will be integrated into IFZ, it will benefit from the existing resources (at least annual basic funding) and infrastructure. These "IFZ revenue sources" will enable the cell to carry out the less cost-intensive activities.
- More cost-intensive activities will be covered by project funding, fees and honorariums.

Effectiveness

- The mission of the Graz competence cell is to progressively introduce co-RRI concepts and practices in the local R&I system. This will be well-achieved via the cell's activities that will disseminate the concept and practices, implement or make them implemented in projects, build the co-RRI capacities (via teaching and seminars) and build a community around RRI.
- The cell has a trusted network of partners to implement jointly some of the cell's activities, easing the implementation process.
- The activity model is relatively scalable since it requires mainly more staff, and not a complete change of activities, revenue sources, etc.

Efficiency

- The partnership with IFZ optimises the Graz region competence cell model by diminishing the difficulties linked to starting-up such organisation and to getting the resources. Furthermore, this partnership will ease the process of establishing the cell's legitimacy and credibility
- Partnering with the Austrian RRI unit allows a direct access to interested potential beneficiaries and targets and will increase the critical mass of people that know about RRI.
- Teaching about RRI directly at "traditional" R&I actors that universities are, will help RRI to become mainstream and will offer future R&I actors RRI competencies, grounding RRI principles within the core of the R&I system.
- The mix of revenues does not allow to stop all the activities suddenly in case one revenue stream ceases for a certain time.

3.4 Conclusion

- The following key activities implemented by the IFZ CC will foster a change towards co-RRI:
 - Raising awareness for co-RRI and its benefits
 - Supporting capacity building
 - Implementing co-RRI projects
 - Supporting others in implementing co-RRI
 - Networking with other co-RRI actors (community building)
 - Sharing its expertise and experiences with other R&I actors and stakeholders (capacity building)
 - Joining forces with other actors, who share a similar vision.
- Alignment of activities and cell's organisation with the missions, and with the internal & external capabilities that the IFZ CC has:
 - Through its embeddedness as a unit at IFZ, the CCs viability is guaranteed as long as the IFZ remains a viable research organisation. As the IFZ exists since 30 years, it is well established.

- All the necessary skills and expertise are with the CC members, and for any specific expertise, which might be demanded, IFZ can refer to long established cooperation with many Universities, private research organisations and various stakeholder groups from the thematic fields the institute is working on. This is also an advantage in regard to engaging non-academic partners in co-RRI activities.
- Maintenance of interest for the IFZ CC and its activities up to the long-term:
 - The CC offers cooperation and its services to IFZ researcher as well as to other 'external' partners. IFZ researchers are already working on projects, which consider societal relevance, sustainability issues and gender equality, thus there is an inherent interest in inter- and transdisciplinary approaches since ever, which also involves openness for and interest in co-RRI. The long-term interest of 'external' partners cannot be fully predicted, as this will also depend on broader developments in the R&I landscape. However, according to the growing interest in inter- and transdisciplinary research, which is also mirrored in the funding landscape (a national funding programme for 'Responsible Science' is under development, a programme for citizen science is in place, and several programmes refer to 'multi-actor processes'), the interest in institutions such as the CC is very likely to grow as the demand for building capacities and facilitation will increase.
 - The promotion of the CC will be part of the IFZ communication and PR activities, thus it will be well visible.
- Weaknesses and threats for the viability of the IFZ CC and how to mitigate them:
 - There is a threat that in the Region of Graz other R&I organisations also found units similar to the IFZ CC (see e.g. 'Research Platform Responsible Research and Innovation in Academic Practice' at the University of Vienna), which would then increase the competition. The competitive advantage of the IFZ CC will be that it builds on long-term experiences, particularly in regard to research-based practices.
 - Another threat relates to the general development of R&I policies: if the funding landscape would not support transdisciplinary or multi-actor approaches, the demand for co-RRI is likely to decrease. Continuous lobbying from several R&I actors (e.g. RRI-Platform) aims at further recognition for the importance of addressing societal relevant topics in R&I with different methodological approaches.
 - Finally, the economic viability of the CC is linked to its hosting institution IFZ. An important strategy to ensure financial viability is to continuously apply for additional project funding.

4 Flemish competence cell (VITO)

4.1 Mission

Context & problems addressed

According to its long-term vision, Flanders wants to become “an inclusive, open, resilient and internationally connected region that creates prosperity and well-being for its citizens in a smart, innovative and sustainable manner” by 2050. It acknowledges that understanding and anticipating on societal transitions emerging from complex, ‘wicked’ problems such as diversification and individualization, the growing demand for water and energy, digitalization, climate change and inequality are a prerequisite to be able to work on the long-term well-being and prosperity of its population (see also the Flemish ‘Vision 2050’²). Research and innovation effectively addressing wicked problems, however, asks for a problem-driven and transdisciplinary approach based upon a holistic analysis of societal systems, and therefore requires new methodologies and new ways of organizing research and innovation processes, as well as new infrastructures supporting these transdisciplinary trajectories (LNE (2015) Adviesnota ‘Duurzaamheid in onderzoek’³). **A co-RRI competence cell is an innovative organizational structure designed to fulfil this supporting function.**

Vision

Agenda setting: Flanders will be a region where strategic research agendas are always the result of a transdisciplinary trajectory involving relevant actors from science, governmental bodies, civil society and the business sector. These strategies will enable researchers to develop adequate answers on the local manifestation of the global challenges addressed by the SDGs.

Capacity building: Flanders will be a region where dedicated action will lead to a shared knowledge base on RRI, for instance by making courses on systems thinking and responsible research and innovation obligatory for all students in higher education institutes.

Knowledge transfer: Flanders will be a region where knowledge from both traditional and non-traditional knowledge actors is highly valued. New instruments, such as the knowledge vouchers, will be developed to facilitate the exchange of knowledge among these actors and to qualitatively optimize research and innovation trajectories.

Advocacy: Flanders will be a region where the scientific world actively participates in societal debates and even takes the lead with regard to questions about sustainable local solutions for the global challenges.

Community building: Flanders will be a region where an active RRI community will have developed enough critical mass to develop iconic RRI projects uniting high-level professionals from science, policy, civil society and the business sector.

² Vision 2050. A long term strategy for Flanders. <https://www.vlaanderen.be/nl/vlaamse-regering/visie-2050>

³ LNE (2015) Adviesnota ‘Duurzaamheid in onderzoek’
<https://www.vlaanderen.be/nl/publicaties/detail/duurzaamheid-in-onderzoek-1>

Mission

The Flemish RRI competence cell is currently conceptualized as an expert organization ‘without walls’ or, more precisely, as a **network of cells embedded in the main Flemish research institutes, coordinated by a central entity**, fostering a transition within the vested research and innovation system towards a more responsible system.

On the short term a first ‘embedded co-RRI cell’ will be established in VITO. The mission of this embedded cell is double. On the one hand, it will work, together with other research and innovation actors in Flanders, towards the establishment of the coordinating entity mentioned above. On the other hand, it will also have the mission to perform co-RRI projects and to further invest in the development of a variety of means to connect and mobilise relevant societal actors in Flanders.

The activities of both the short term and long-term competence cell will drive Flemish research and innovation towards societally desirable outcomes, link all actors of RRI, will promote RRI in Flanders and create a shared knowledge base on RRI.

4.2 Overview of the activity models

4.2.1 Short-term activity model

The short-term competence cell embedded in VITO (referred to further on as ‘embedded cell’) will work in close collaboration with the VITO Transition Platform, which already has a broad knowledge base on stakeholder and transition management. This Platform also actively explores how it can fulfil an active brokerage function for the research at VITO within the broader field of research and innovation in Flanders.

This embedded cell will develop activities along two different but connected tracks. One track will be externally oriented and will try to link the VITO cell with other actors and organizations from the quadruple helix developing RRI activities in Flanders. The main objective here is to further develop support for RRI and to work on a shared vision on the realisation of other cells in Flemish research institutes, as well as the establishment of the coordinating entity regulating these cells’ interactions.

The other track will have a more VITO-internal focus. Central to this track will be transdisciplinary projects in which innovative governance practices are developed to co-design RRI projects that are attuned to context-specific needs, and that connect and mobilise relevant societal actors. A special focus will be on how commonly shared assumptions, understandings, needs and values affect the outcomes of research projects.

These activities are funded by internal funds on the one hand and public funds on the other hand.

Partnerships VITO Members of the advisory board Other RRI CC in Europe	Activities Community building Awareness raising Setting up RRI-trajectories Education	Missions CC initiates and facilitates a cooperative process which implies several activities with a multi-actor group aiming at jointly developing co-RRI projects and project concepts It initiates the discussions about a network of embedded CC's with a coordinating entity	Image Expert centre for RRI Broker for RRI	Targets (whom the activities are targeted to): Key actors in the Flemish landscape, such as universities, department for Economy, Science and Innovation, funding agencies, etc. Broader public interested in R&I Authorised persons in educational programs in VITO Facilitators
	Resources Skills Co-RRI, communication, networking, marketing, system thinking, transdisciplinary R&I, facilitation, management, social media, other means of communication, writing & graphic design Human Experts Partners – networks Facilitators Employees Materials Offices, computers, other infrastructure FoTERRIS online platform and digital means to showcase	Pain points addressed Lack of multi-actor R&I activities. Actors lack expertise in how to implement R&I. “Conventional” R&I projects are lacking room for the reflection of societal relevant problems.	Channels Website Social media Workshops Interviews Policy briefings, position papers Press Network events and conferences Scientific journals Newsletter Face-to-face meetings and interview Lectures FoTERRIS online platform and other digital means	Beneficiaries (who will benefit from the activities undertaken by the targets): All actors involved in the establishment and development of embedded cells in R&I institutes All actors benefitting from a further institutionalisation of RRI in Flanders. All actors directly contributing to RRI projects in Flanders. PhD students, employees of knowledge institutes, consultants... Society as a whole
Costs structure Personnel costs Direct costs such as renting meeting rooms, catering, etc. Indirect costs related to the activities Website creation Marketing		Revenue streams Conceptual work funded by public funds Financial resources and/or in-kind contributions by VITO to cover costs Ad hoc by projects		

Figure 24: Flemish short-term activity model canvas

4.2.2 Long-term activity model

Partnerships	Activities	Missions	Image	Targets:
<p>Embedded cells</p> <p>Members of the advisory board,</p> <p>Other European competence cells, and other key actors in the European RRI landscape.</p> <p>Flemish and Belgian governmental bodies</p> <p>Funding institutions (regional, national, European level)</p> <p>Muntuit</p> <p>Governmental bodies authorized to decide on rewarding systems</p> <p>Foreign institutes experienced in working with alternative remuneration strategies</p>	<p>Community building</p> <p>Awareness Raising and advocacy of RRI</p> <p>Supporting embedded cells</p> <p>Education</p> <p>Development and management of an alternative rewarding system</p>	<p>Support the transition of the traditional R&I system to RRI.</p> <p>Link all actors in RRI landscape in Flanders</p> <p>Promote RRI in Flanders</p>	<p>Expert Centre</p> <p>Advocate of RRI</p>	<p>Key actors in the Flemish landscape, such as universities, department for Economy, Science and Innovation, funding agencies, etc.</p> <p>Broader public interested in R&I</p> <p>Actors working for the cells</p> <p>Authorised persons in educational programs in knowledge institutes and companies</p> <p>Facilitators</p> <p>All stakeholders contributing to activities related to processes of knowledge exchange and learning</p>
	<p>Resources</p> <p>Skills</p> <p>Co-RRI, communication, networking, marketing, system thinking, transdisciplinary R&I, facilitation, management, writing & graphic design, legal and organisation development</p> <p>Alternative remuneration strategies (incl. legal aspects)</p> <p>Human</p> <p>Experts</p> <p>Partners – networks</p> <p>Facilitators</p> <p>Employees</p> <p>Connections with authorized persons</p> <p>Materials</p> <p>Offices, computers, other infrastructure</p> <p>FoTERRIS online platform and digital means to showcase</p> <p>Knowledge database</p>	<p>Pain points addressed</p> <p>Actors lack expertise in how to implement R&I.</p> <p>No intermediate organisation between classical academia, other R&I institutions, stakeholders and other civil societal actors.</p> <p>“Conventional” R&I projects are lacking room for the reflection of societal relevant problems.</p>	<p>Channels</p> <p>Face-to-face meetings and interviews</p> <p>Meeting of the General Assembly linked to annual conference</p> <p>Network events, workshops and conferences</p> <p>Website and digital newsletter Social media</p> <p>Policy briefings, position papers</p> <p>Press</p> <p>Scientific journals</p> <p>Lectures</p> <p>Digital knowledge vouchers</p> <p>FoTERRIS online platform</p>	<p>Beneficiaries:</p> <p>All actors involved in the establishment and development of embedded cells in R&I institutes</p> <p>All actors benefitting from a further institutionalisation of RRI in Flanders</p> <p>All actors directly contributing to RRI projects in Flanders</p> <p>Students, employees of knowledge institutes, consultants and other actors interested in co-RRI.</p> <p>Society as a whole</p>

Costs structure	Revenue streams
<p>Personnel costs (min. 3 persons)</p> <p>Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc.</p> <p>Indirect costs related to the organisation and execution of the activities presented here.</p> <p>Legal costs</p>	<p>Membership fees and in-kind contributions</p> <p>Public funding</p> <p>Knowledge vouchers</p>

Figure 25: Flemish long-term activity model canvas

The long-term competence cell will be a network of cells embedded in Flemish research and innovation institutes coordinated by a central entity (referred to further on as ‘coordinating entity’). The activity model discussed in this document is a blue-print for this coordinating entity. Most probably, this coordinating entity will become a non-profit association located within one of the institutes of the founding members (see also deliverable 2.3 for more details).

The main objective of this cell is to build and maintain a network of co-RRI embedded cells and, hence, to foster the transition towards a more responsible research and innovation system in Flanders. It will do this by helping other R&I actors to establish an embedded CC, by communicating on the necessity of RRI for the prosperity and well-being of Flemish citizens, and by developing tools and manuals to mainstream RRI approaches. In addition to this, it will also develop and manage a system of knowledge vouchers to facilitate the exchange of knowledge among traditional and non-traditional knowledge holders.

The activities of the coordinating entity will be financed through the contribution of its members, complemented with project funding for certain specific activities.

4.3 Details of the short-term activity model

4.3.1 Core activities

Community building and networking

Description, purpose & output	<ul style="list-style-type: none"> • Linking the VITO cell with other actors and organizations from the quadruple helix developing RRI activities in Flanders • Working on a shared vision on the establishment of the coordinating entity (see long-term activity model) • Developing a commonly accepted vision, mission and task description of the coordinating entity • Advise on the development of other embedded cells • Supporting the interaction among embedded cells
Beneficiaries	<ul style="list-style-type: none"> • All actors involved in the establishment and development of embedded cells in research and innovation institutes in Flanders. • All actors benefitting from a further institutionalisation of RRI in Flanders. • All actors directly contributing to RRI projects in Flanders.
Targets	Key actors in the Flemish R&I landscape, such as universities, strategic research centres, department for Economy, Science and Innovation, funding agencies, etc.
Channels	<ul style="list-style-type: none"> • Face-to-face meetings and interviews • Co-creation workshops • Network events • Website and newsletter
Relationship	Co-creation process
Resources	<ul style="list-style-type: none"> • Co-RRI experts and experts in communication, networking and marketing • Offices, computers and other infrastructure • Network of different actors in the R&I landscape • FoTERRIS online platform and other digital means to showcase best practices
Partnerships	VITO, members of advisory board and other European competence cells
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> • Financial resources and/or in-kind contributions by VITO • Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment)

Awareness raising and advocacy for co-RRI

Description, purpose & output	<ul style="list-style-type: none"> • Advocacy of co-RRI through, for instance, position papers and networking, in order to keep co-RRI high on the scientific and political agenda • Enriching the debate on reforming the R&I system in Flanders • Closing the knowledge gap in Flanders about co-RRI
Beneficiaries	<ul style="list-style-type: none"> • Actors within the field of science and innovation: demonstrating the relevance of science and innovation in relation to the societal challenge of finding answers to wicked problems.

Targets	<ul style="list-style-type: none"> Society as a whole: a better understanding of the core principles of RRI will result in the development of other research and innovation approaches and, ultimately, a better societal uptake of novelties.
Channels	<ul style="list-style-type: none"> Key actors in the Flemish R&I landscape, such as universities, strategic research centres, department for Economy, Science and Innovation, funding agencies, etc. Broader public interested in research and innovation Policy briefings, position papers Press Network events and conferences Scientific journals Social media, website and newsletter
Relationship	Open communication. The embedded cell as easy accessible resource of information on co-RRI.
Resources	<ul style="list-style-type: none"> Co-RRI experts and experts in communication, networking and marketing Offices, computers and other infrastructure Network of different actors in the R&I landscape
Partnerships	VITO, members of advisory board, other European competence cells and other RRI actors in Flanders
Costs	<ul style="list-style-type: none"> Personnel costs Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> Financial resources and/or in-kind contributions by VITO to cover costs Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment)

Education

Description, purpose & output	<ul style="list-style-type: none"> Support the development of courses, summer schools and other educational programs on RRI and system thinking. Coaching of process facilitators
Beneficiaries	<ul style="list-style-type: none"> PhD students, employees of knowledge institutes, consultants and other actors interested in co-RRI.
Targets	<ul style="list-style-type: none"> Authorised persons (professors, ...) in educational programs in VITO Facilitators
Channels	<ul style="list-style-type: none"> Face-to-face meetings Lectures FoTERRIS online platform
Relationship	Advisory role
Resources	<ul style="list-style-type: none"> Experts in co-RRI, systems thinking, trans-disciplinary research and innovation, etc. Offices, computers and other infrastructures (e.g. online platform to show best practices) Network of different actors in the R&I landscape

Partnerships	VITO, other co-RRI competence cells
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs (e.g. travel costs, printing costs, etc.) • Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> • Financial resources and/or in-kind contributions by VITO • Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment)

Setting up co-RRI trajectories

Description, purpose & output	<ul style="list-style-type: none"> • Applying for project funding • Developing co-RRI projects contributing to a longer-term co-RRI trajectory • Managing the knowledge community related to particular co-RRI trajectories • Supporting and facilitating co-RRI projects involving a diversity of stakeholders • Developing tools and methods supporting co-RRI trajectories
Beneficiaries	<ul style="list-style-type: none"> • All stakeholders contributing to the co-RRI projects • Society as a whole: co-RRI projects create direct and indirect added value for Flanders.
Targets	Traditional and non-traditional actors within the field of research and innovation: researchers, governmental actors, CSOs, representatives of companies, etc.
Channels	<ul style="list-style-type: none"> • Co-creation workshops • Website, social media and newsletter • FoTERRIS platform or similar digital means
Relationship	<ul style="list-style-type: none"> • Co-creation process • Pilot cases will be used to further test and develop the knowledge vouchers (see also D2.4).
Resources	<ul style="list-style-type: none"> • Co-RRI experts and experts in communication and networking • Facilitators familiar with co-RRI • Offices, computers and other infrastructures • Network of different actors in the R&I landscape • Digital communication means to communicate and co-create such as the FoTERRIS online platform
Partnerships	VITO, other European competence cells and other RRI actors in Flanders
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Indirect costs related to the organisation and execution of the activities presented here.
Revenue Streams	<ul style="list-style-type: none"> • Funded by VITO (own research trajectories) • Funded by another inquirer of a co-RRI trajectory • Project-funding applied for at public authorities

4.3.2 Support activities

Management

Description, Purpose	(Please see also description of the governance model in D2.3) <ul style="list-style-type: none"> • Strategic planning of the short- and longer-term functioning of the competence cell • Organise the daily activities of the competence cell • Manage the finances of the competence cell
Resources & partnerships	<ul style="list-style-type: none"> • Personnel with management skills • Employees of competence cell and supporting departments of VITO having legal, financial, etc. expertise • Offices, computers and other infrastructures Partnerships: VITO's HR department, financial department, legal department, etc.
Costs	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here
Revenue streams	<ul style="list-style-type: none"> • Funded by VITO • Indirectly through project funding

Creating communication means

Description, Purpose	<ul style="list-style-type: none"> • Development and maintenance of website and other social media tools • Development of basic ideas concerning newsletters, position papers, etc. • Developing a database with contact details
Resources & partnerships	<ul style="list-style-type: none"> • Personnel with expertise in social media and other means of communication • Personnel with writing and graphic design skills Partnerships: External communications and IT department of VITO
Costs	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here • Direct costs related to the execution of the activities presented here (e.g. printing costs)
Revenue streams	<ul style="list-style-type: none"> • Funded by VITO • Indirectly through project funding

4.3.3 Channels

Channels are defined here as “means and infrastructures to reach your targets/beneficiaries and to communicate about your cell’s existence”. Given this broad definition, ‘channels’ therefore comprise a diversity of means and infrastructures. In the tables below, only the channels that will be used on a regular basis will be further explained.

Competence cell’s website

Channel	<p>The website answers questions such as:</p> <ul style="list-style-type: none"> • What are the vision and mission of the competence cell? • What is co-RRI? • What are best practices in co-RRI? • What kind of projects is the competence cell working on? • Who’s working for the competence cell? • What kind of (inter)national partnerships characterise the network underlying co-RRI in Flanders? <p>The website will also contain links to, for instance, publications, annual reports and the minutes of advisory board meetings.</p>
Purpose	<ul style="list-style-type: none"> • Raising awareness of the cells services and activities • Helping ‘customers’ to evaluate the cell’s value proposition: what kind of added value does the competence cell have within the field of science and innovation in Flanders? • Providing information on co-RRI in Flanders • Providing information on the governance of the competence cell
Cost	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here • Direct costs related to the execution of the activities presented here
Rationale	<p>An easy accessible virtual portal where all necessary information can be found to become familiar with co-RRI in Flanders.</p>

Social media

Channel	<p>Communication through social media such as Facebook, twitter, YouTube, LinkedIn, ...</p>
Purpose	<ul style="list-style-type: none"> • Communication on importance of RRI (see also. awareness raising) • Announcement of events • Reporting on events
Cost	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here
Rationale	<p>Very fast communication channel used by several stakeholders</p>

Workshops

Channel	Events on which a well-balanced group of stakeholders is invited to, for instance, brainstorm and discuss about envisioned outcomes, barriers, leverages, etc.
Purpose	<ul style="list-style-type: none"> • Bringing stakeholders together in a constructive atmosphere to discuss and work on certain topics • Networking
Cost	<ul style="list-style-type: none"> • Co-RRR experts and experts in communication and networking • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Costs linked to rewarding the input of the participants of a workshop (alternative rewarding systems) • Hiring of facilitators familiar with co-RRR • Digital communication means to communicate and co-create such as the FoTERRIS online platform • Indirect costs related to the organisation and execution of the activities presented here
Rationale	Workshops are essential elements in participative and co-creative trajectories.

Face to face meetings

Channel	Talking to people in a face-to-face setting (informal chats, (semi-)structured interviews, etc.)
Purpose	<ul style="list-style-type: none"> • Gathering opinions • Exchanging information • Community building
Cost	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here
Rationale	The best way to go into an open dialogue with some stakeholders. They are less conscious of opinions of other stakeholders and you get less strategic/careful answers than in group. It is for some people also more comfortable to ask questions.

Newsletter

Channel	Digital letter with latest news on the competence cell and its activities
Purpose	Awareness raising and communication
Cost	<ul style="list-style-type: none"> • Personnel costs • Indirect costs related to the organisation and execution of the activities presented here
Rationale	A short newsletter in a mailbox keeps the competence cell and co-RRR in the minds of readers. Not all stakeholders use social media.

4.3.4 Partnerships

VITO

Describe your partner and the partnership	VITO is a strategic research and technology institute in Flanders. The embedded cell will become part of this organisation. The VITO services, such as the HR department or the legal department, will support this cell. VITO will also for a large part provide the manpower, financial means and infrastructures needed to execute the core activities of the embedded cell.
Purpose & implementation	<ul style="list-style-type: none"> Regular meetings with the Research and Innovation Director of VITO to discuss the vision, mission, longer-term planning and other strategic decisions, and other VITO representatives when needed. Collaboration in research and service projects with other research and service groups within VITO, such as the transition cell.
Cost	<ul style="list-style-type: none"> Personnel costs Indirect costs related to the organisation and execution of the activities presented here
Rationale	The Flemish competence cell is conceptualised as a decentralised organisation composed of different cells that are embedded in research and innovation centres in Flanders. The cell established in VITO will be the first one. This VITO cell will be staffed with VITO employees and will closely collaborate with other entities within VITO.

Other European competence cells

Describe your partner and the partnership	The other European competence cells established during the FoTERRIS project go through a similar developmental process as the Flemish competence cell. It would therefore be interesting to exchange experiences, insights, interesting articles, etc. at a regular basis. In addition to this, these competence cells also agreed on setting up mutual services (e.g. putting meeting rooms at the disposal of other competence cells when they have to organise an event in your country).
Purpose & implementation	<ul style="list-style-type: none"> Meetings via vested communication channels such as email, phone, Skype, co-RRI platform, etc. Face-to-face meeting at least once a year at the Annual Conference on Critical Issues and Science, Technology and Society Studies organized by IFZ
Cost	<ul style="list-style-type: none"> Personnel costs Direct costs related to the organisation and execution of the activities presented here (e.g. travel costs) Indirect costs related to the organisation and execution of the activities presented here
Rationale	The development of a competence cell not only depends on the internal strength of such an organisation, but also on the strength of its linkages to interesting partners in its network, such as the other competence cells in Europe.

Members of advisory board

Describe your partner and the partnership	The strategic decisions taken by the Flemish competence cell will be assessed by a panel of knowledgeable actors representing the four pillars of the quadruple helix (see also D2.3).
Purpose & implementation	This advisory board will meet at least once a year. Apart from this, also separate meetings with individual members of this board can take place on an ad-hoc basis.
Cost	<ul style="list-style-type: none"> • Personnel costs • Direct costs related to the organisation and execution of the activities presented here (e.g. travel costs) • Indirect costs related to the organisation and execution of the activities presented here
Rationale	The expertise and experiences of the members of the advisory board can help the competence cell to get on a path of sustainable organisational development. Meanwhile, the competence cell can 'use' the network of the members of this board to become better embedded within the Flemish research and innovation landscape.

4.3.5 Viability

Economic balance

Costs	Revenue streams
Personnel costs related to the management of the cell, the execution of the cell's core activities, the development of communication means, facilitating workshops, etc.: 480 000 EUR	In-kind contributions by VITO Project funding: 200 000 EUR
Offices, computers, administration, meeting rooms, legal support and other overhead costs: 95 000 EUR	In-kind contributions by VITO
Direct costs related to projects such as renting spaces for workshops, catering, etc.: 5 000 EUR	Project funding: 5 000 EUR
Communication tools, such as the website and the platform: 5.000 EUR	In-kind contributions by VITO Open-source communication means
Total expected costs: 585.000€	Total expected revenues: 585 000 €

Viability

The viability of the cell will be guaranteed by VITO as the organisation provides resources and finances to start-up the CC and to make the transition to the long-term CC as explained below.

The in-kind contributions made by VITO concern resources such as infrastructure, computers, administrative and legal support, etc., and at least 2 full time employees working for the cell (3 are foreseen in the budget). We expect that over the years the revenues through projects will grow.

4.3.6 *Assessment of the short-term activity model*

Desirability

- RRI in Flanders is still in its infancy but there is a growing interest both from knowledge institutes and policy makers. The concept is in line with the longer-term vision for 2050 presented by the Flemish government and caught attention of Flemish departments such as the Department of economy, science and innovation, which organized a focus conference on the theme, and the Department of Environment, which already organized a working group on sustainability in research and innovation.
- This increasing interest in RRI could also be felt during the outreach workshop of the FoTERRIS project, which was welcomed enthusiastically. For the moment there is a window of opportunity in Flanders to start a competence cell on RRI.

Feasibility and viability

As a Flemish cell was not feasible on the short term because of time constraints, VITO decided to go ahead with a cell embedded within VITO. Besides, this kind of development process, that first develops embedded cells dedicated to RRI and then is fostering the growth of a competence cell at Flemish level from within these cells, is also more in line with the organizational culture within research and innovation institutes in Flanders (see also D2.3). VITO will provide the resources (e.g. competences, personnel, support from HR department, etc.) needed for the development of this cell and project-funding, in line with the cell's mission, will complete those resources.

Effectiveness

- The core activities make it possible to reach the mission of the embedded cell, for there is an important match between the activities and the mission. On the one hand these activities focus on demonstrating the feasibility and effectiveness of co-RRI and on communicating about its added value for Flanders. On the other hand, the cell aims for further embedding this kind of research and innovation approach within the daily practices at VITO, and the Flemish research and innovation landscape in general (e.g. through further developing a system of knowledge vouchers).
- VITO engaged itself to be one of the founders of co-RRI in Flanders, so that makes for an important partnership, for VITO is a key-player within the Flemish research and innovation world, closely collaborating with both public and private entities, and therefore an ideal breeding ground for this co-RRI cell.
- The scaling-up of the activity model is integrated in the activity model since its conception

Efficiency

- We intend to use a broad range of channels in order to reach as much as possible all relevant stakeholders within the Flemish research and innovation field. Simultaneously, the cell will also work on mind-setting all relevant actors in Flanders towards a competence cell on RRI at Flemish level (see also the coordinating entity in the long-term model below).
- In addition to this, the cell will closely collaborate with the VITO transition cell and other research units within VITO. This makes that the VITO cell can build further upon networks, skills, expertise, etc. that has been developed within VITO throughout several decades.
- VITO has engaged itself to provide more than half of the resources to the competence cell so that eases the setting-up process a lot.

4.4 Details of the long-term activity model

4.4.1 Core activities

Community building and networking

Description, purpose & output	<ul style="list-style-type: none"> • Linking the coordinating entity with other actors and organizations in Flanders interested in the further development of co-RRI • Working on a shared vision on co-RRI in Flanders • Supporting the development of embedded cells in research and innovation institutes in Flanders • Supporting the interaction among embedded cells
Beneficiaries	<ul style="list-style-type: none"> • All actors involved in the establishment and development of embedded cells in research and innovation institutes in Flanders • All actors benefitting from a further institutionalisation of RRI in Flanders • All actors directly contributing to RRI projects in Flanders
Targets	Key actors in the Flemish R&I landscape, such as universities, strategic research centres, department for Economy, Science and Innovation, funding agencies, etc.
Channels	<ul style="list-style-type: none"> • Face-to-face meetings and interviews • Meeting of the General Assembly linked to annual conference • Network events • Website and digital newsletter
Relationship	Co-creation process and open dialogue
Resources	<ul style="list-style-type: none"> • Co-RRI experts and experts in communication, networking and marketing • Offices, computers and other infrastructure • Network of different actors in the R&I landscape • FoTTRIS online platform and other digital means to showcase best practices
Partnerships	Research and innovation institutes in Flanders, Funding institutions, members of the advisory board, other European competence cells, public authorities and other key actors in the European RRI landscape (some of those are members of the association).
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> • Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment) • Membership fees and in-kind contributions of members

Awareness raising and advocacy for co-RRI

Description, purpose & output	<ul style="list-style-type: none"> • Advocacy of co-RRI through, for instance, position papers and lobbying work, in order to keep co-RRI high on the scientific and political agenda and to work on the mindset of private and public actors in Flanders concerning the relationship between the science and innovation system and societal development • Enriching the debate on reforming the R&I system in Flanders • Closing the knowledge gap in Flanders about co-RRI • Mapping and communicating about best practices in Flanders and elsewhere
Beneficiaries	<ul style="list-style-type: none"> • Actors within the field of science and innovation: demonstrating the relevance of science and innovation in relation to the societal challenge of finding answers to wicked problems. • Society as a whole: a better understanding of the core principles of RRI will result in the development of other research and innovation approaches and, ultimately, a better societal uptake of novelties.
Targets	<ul style="list-style-type: none"> • Key actors in the Flemish R&I landscape, such as universities, strategic research centres, department for Economy, Science and Innovation, funding agencies, etc. • Broader public interested in research and innovation
Channels	<ul style="list-style-type: none"> • Policy briefings, position papers • Press • Network events and conferences • Scientific journals • Social media, website and newsletter
Relationship	Open communication. The competence cell as easy accessible resource of information on co-RRI.
Resources	<ul style="list-style-type: none"> • Co-RRI experts and experts in communication, networking and marketing • Offices, computers and other infrastructures • Network of different actors in the R&I landscape
Partnerships	Other RRI actors in Flanders, members of the advisory board and other European competence cells
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Indirect costs related to the organisation and execution of the activities presented here
Revenue streams	<ul style="list-style-type: none"> • Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment) • Membership fees and in-kind contributions of members

Supporting embedded cells

Description, purpose & output	<p>Knowledge transfer</p> <ul style="list-style-type: none"> • Map different sources of knowledge and information (traditional and non-traditional) in a knowledge database • Development of and access to RRI manuals and methodologies to start co-RRI trajectories • Mapping and communicating of best practices • Organising conferences, workshops and other events where knowledge transfer can take place <p>Support for funding</p> <ul style="list-style-type: none"> • Mapping funding channels • Sharing experiences and expertise on project application procedures <p>Matchmaking service</p> <ul style="list-style-type: none"> • Reference point and gate keeper for RRI in Flanders • Map activities and expertise of leading innovators • Bring actors together who do not interact normally • Lower barriers to contact R&I organisations for societal actors • Development of a pool of facilitators with expertise in co-creation processes in research and innovation trajectories
Beneficiaries	<p>Embedded cells</p> <p>Actors within the field of science and innovation: well-functioning cells in the research and innovation institutes in Flanders will affect the success and effectiveness of co-RRI trajectories developed by these institutes</p> <p>Society as a whole will be benefited by research and innovation trying to develop proper solutions for global problems.</p>
Targets	<p>Actors working for the embedded cells</p>
Channels	<ul style="list-style-type: none"> • Face-to-face meetings • Workshops, conferences and other events where an exchange of knowledge and experiences can take place • Website with limited access part for members • FoTERRIS online platform • Dedicated publications
Relationship	<ul style="list-style-type: none"> • Dialogue and open communication • Open access to publications and other sources of knowledge on RRI in Flanders
Resources	<ul style="list-style-type: none"> • Co-RRI experts, legal experts and experts in organisational development • Offices, computers and other infrastructures • Network of different actors in the R&I landscape
Partnerships	<p>Research and innovation institutes in Flanders, Flemish and Belgian governmental bodies and other European competence cells</p>
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs such as costs related to renting meeting rooms, catering, travel costs, etc. • Indirect costs related to the organisation and execution of the activities presented here.

Revenue streams	<ul style="list-style-type: none"> Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment) Membership fees and in-kind contributions of members
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Education

Description, purpose & output	<ul style="list-style-type: none"> Support the development of courses, summer schools and other educational programs on RRI and system thinking in universities, high schools, etc. Coaching of process facilitators
Beneficiaries	Students, employees of knowledge institutes, consultants and other actors interested in co-RRI.
Targets	<ul style="list-style-type: none"> Authorised persons in educational programs in knowledge institutes and companies Facilitators
Channels	<ul style="list-style-type: none"> Face-to-face meetings Lectures FoTERRIS online platform
Relationship	Advisory role
Resources	<ul style="list-style-type: none"> Experts in co-RRI, systems thinking, trans-disciplinary research and innovation, etc. Offices, computers and other infrastructures (e.g. online platform to show best practices) Network of different actors in the R&I landscape
Partnerships	<ul style="list-style-type: none"> Member cells, Flemish and Belgian governmental bodies, other co-RRI competence cells
Costs	<ul style="list-style-type: none"> Personnel costs Direct costs (e.g. travel costs, printing costs, etc.) Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment) Membership fees and in-kind contributions of members

Development and management of an alternative rewarding system

Description, purpose & output	<ul style="list-style-type: none"> Development of an alternative rewarding system based on knowledge vouchers. This system was experimented with during the FoTERRIS project (see also D2.4) and will be further developed in the years to come. Management of the alternative rewarding system through online tracking system and other means.
Beneficiaries	Flemish knowledge economy: The knowledge vouchers facilitate the exchange of knowledge and learning processes.
Targets	All stakeholders contributing to a set of well-defined activities related to processes of knowledge exchange and learning in Flanders.

Channels	Digital knowledge vouchers
Relationship	Supporting function
Resources	<ul style="list-style-type: none"> • Experts in the development of alternative remuneration strategies, the legal aspects related to this kind of systems and the management of it. • Offices, computers and other infrastructures (e.g. online platform to show best practices) • Connections with authorized persons within relevant public administrations
Partnerships	<ul style="list-style-type: none"> • Muntuit • Authorized governmental bodies • Foreign institutes experienced in working with alternative remuneration strategies
Costs	<ul style="list-style-type: none"> • Personnel costs • Direct costs (e.g. travel costs) • Indirect costs related to the organisation and execution of the activities presented here.
Revenue streams	<ul style="list-style-type: none"> • Funded by public funds (applying for/receiving of public funds will be initiated as soon as possible after the cell's establishment) • Membership fees and in-kind contributions of members

4.4.2 Viability

Economic balance	
Costs/year	Revenue streams per cost/year
Costs employees of the CC: 3-4 full time 700.000	Membership fees: 100.000 (15.000€ per member, with exception of NGO's and SME (estimated from a benchmark of similar associations, where the fee is around 25€ per employee) or in-kind contributions, that is personnel posted from vested institutes to the competence cell Dedicated Public funding: 500.000€ Other public funding: 100.000€
Direct costs related to the core activities 50.000€ Indirect costs related to the core activities 30.000€	Dedicated Public funding: ~ 30.000€ Other public funding: ~50.000€ In-kind contributions of members e.g. offices, meeting rooms, ...
Legal costs of the set up: 20.000 (once)	Dedicated Public funding: 20.000€
Total costs: 800.000€	Total revenues: 800.000€

Viability

If we manage to get the necessary funding through dedicated public funds, the viability of the coordinating entity is guaranteed in the first years of its founding. Depending on the legal organisation chosen, the viability of this coordinating entity is also guaranteed by the fees and in-kind contributions every associated organisation has to pay. During the start-up phase of the coordinating entity a large part of the revenues will come from public funding, as one of the goals of this organisation is to enlarge the RRI community by helping other R&I organisations to set up embedded competence cells themselves. No engagements have been made yet.

4.4.3 *Assessment of the long-term activity model*

The desirability assessment is the same than for the short-term model.

Feasibility

As this subject was often touched upon during the outreach workshop, we definitely see the implementation of a coordinating entity with embedded cells as a feasible option. Nevertheless, this model is not yet thoroughly discussed with all the stakeholders involved. This means that the activity model presented above is nothing more than our starting point for further discussions on how a competence cell in Flanders could look like. We will cooperate with organisations with a similar structure (e.g. Ibero-American Association of UCM) to combine our experiences in order to enlarge the feasibility.

Viability and efficiency

The viability of the coordinating entity during its first years will most probably depend on the funding possibilities within the Flemish government. By combining dedicated funding with other funding possibilities and membership fees, we will try to optimize our revenue streams as much as possible. In addition to this, we will also further investigate models based on in-kind contributions (e.g. posting personnel from vested research and innovation institutes to the coordinating entity, making use of available infrastructures in vested institutes, etc.). Anyway, the ambition is to set up a structure that is as light as possible.

Effectiveness

On the short term the competence cell will develop show cases and gather examples of the added value created through RRI trajectories. Through continuous and open communication about RRI, as well as supporting other organisations to establish an embedded cell, the coordinating entity will be able to fulfil its mission to become a generator of RRI in Flanders.

4.5 Path from the short-term to the long-term activity model

4.5.1 Actions for transforming the model

Strong community building and networking

Action description	<ul style="list-style-type: none"> Organise interviews and workshops with key actors in the Flemish R&I landscape, such as universities, strategic research centres, department for Economy, Science and Innovation, funding agencies Working on a shared vision on the establishment of the coordinating entity (see long-term activity model)
Resources	Manpower Network of RRI actors
Costs	Wages of personnel, transport costs, meeting rooms, ...

Set up coordinating entity

Action description	<ul style="list-style-type: none"> Set up of a coordinating entity with its own structure and governance (see deliverable 2.3). Developing a commonly accepted vision, mission and task description of the coordinating entity
Resources	Manpower Network of RRI actors
Costs	Wages of personnel, costs of infrastructure, legal costs

4.5.2 Process & feasibility

One of the most important processes the VITO cell will have to invest in the coming years, will be the negotiation process to come to a shared vision on the function and the format of the coordinating entity. The following key partners will certainly be invited to be part of these negotiations: Flemish universities, strategic research centres, the Department for Economy, Science and Innovation, the Department of Environment and the research funding agencies.

As a starting point for these negotiations, we will use the output of the outreach workshop, complemented with other interesting materials on this topic gathered through interviews, literature reviews, etc. This implies that the activity model for the coordinating entity, as presented above, is only a blueprint. It reflects the main voices heard during the outreach workshop, but it needs to be further discussed. In case new ideas emerge on the function and activities of this competence cell, the activity model will be rewritten accordingly.

Transformation: economic balance

Costs	Covering costs
Personnel costs	The personnel costs of scaling up actions will be partly carried by VITO, as the actions will be performed by the embedded cell of VITO. The legal costs for setting up the coordinating entity as well as other (in)direct costs, such as hiring offices and equipment, will be subject to the negotiations among all partners involved (e.g. the Flemish government and the big knowledge organisations).
Legal costs	
Infrastructure and overhead	

4.6 Conclusion

According to its long-term vision, Flanders wants to become “an inclusive, open, resilient and internationally connected region that creates prosperity and well-being for its citizens in a smart, innovative and sustainable manner” by 2050. A RRI-competence cell will help establishing this vision.

The Flemish RRI competence cell is currently conceptualized as an expert organization ‘without walls’ or, more precisely, as a **network of cells embedded in the main Flemish research institutes, coordinated by a central entity**, fostering a transition within the vested research and innovation system towards a more responsible system. The latter will be formalized through a set of goals addressing the challenge of driving research and innovation towards societally desirable outcomes, and explaining the shared perspectives among relevant actors on structural barriers and leverages for responsible research and innovation in Flanders.

The coordinating entity will first focus on communication on and advocacy of RRI in Flanders in order to work on a shared vision on RRI in Flanders. Secondly, it will support the development of embedded cells in research and innovation institutes in Flanders in such a way that knowledge and best practices can be easily shared and RRI get mainstreamed into research. A third focus lays on educating future researchers so that RRI becomes a natural way of doing research.

This collaborative and multi-dimensional approach is likely to bear fruits, since it will build on the desires, and needs of the Flemish R&I community and will ensure a coordinated and systemic spreading of RRI principles and practices, so that there will be numerous “entry points” to RRI.

To do this enough experienced people and other resources will be deployed within the coordinating entity but also within the embedded cells.

The weaknesses and threats that could hamper the development of the whole Flemish competence cell is to not get sufficient funds since the running costs are quite high. The price of the membership is relatively high and could prevent some from subscribing. Alternative funding instruments could be mobilised with a good chance of success (public-private funding, crowdfunding,).

The fact that this competence cell will work along the current political development in Flanders will give it more strength and political ground as a leverage to get the necessary resources and partnerships.

5 Hungarian competence cell (ESSRG)

5.1 Mission

Context & problems addressed

The current institutional system of research and innovation seems to be ineffective in solving the grand challenges of ecology and justice humanity is facing in Planet Earth. Recently, the concept of “responsible research and innovation” (RRI) has gained significant attention as a potential transformative solution to change the research and innovation system (RIS) towards ecological sustainability and social justice. RRI promotes a more responsive research and innovation system (RIS) to social and environmental problems as well as more engagement of a wide range of publics, stakeholders, citizens – holders of multiple forms of knowledge. RRI also calls for a transformational and transdisciplinary science and provides meaningful engagement with diverse social actors in order to produce socially robust and practically applicable solutions for environmental and social challenges. The number of collaborative initiatives between science, scientists, and volunteers (i.e., citizen science, living labs, ‘do it yourself science’ and the creation of makerspaces, science shops, etc.) is increasing across many research fields. There is a growing and widespread demand by diverse actors for engaging with research and innovation.

Making collaborative, co-creative research and innovation efforts by diverse actors is envisaged to contribute to respond to the following issues:

- Create awareness among researchers, innovators, and citizens about co-created RRI
- Assist research teams as well as civil knowledge-holders to share their expertise and assets
- Connect enterprises/organizations/citizen groups that have a specific problem with potential problem-solvers (researchers/innovators)
- Allow local initiatives, groups to find suitable partners in a systematic manner
- Bring together large numbers of people to form collaborations and address sustainability issues in ways that national government policy/academic research cannot
- Offer new methods of collaborative learning and knowledge sharing on how-to-do co-created RRI
- Provide methodologies and tools that help interested stakeholders within and outside the immediate research and innovation community to set up collaborative projects
- Present and make visible the achievements of current collaboration activities
- Assist the advocacy of co-created RRI at local, national or EU level
- Assist the international collaborations between current initiatives and partners
- Mobilize the collective intelligence for fostering grassroots processes and practices

Vision

ESSRG envisions a research and innovation system (RIS) that is ethically and politically committed to being responsive to the needs and concerns of local communities and citizens who are, in a collaborative fashion, working towards ecological sustainability and social justice.

Mission

As part of ESSRG structure, the competence cell shares the same vision, mission and objectives as ESSRG.

ESSRG cultivates a **cross-boundary research in a transdisciplinary fashion**, engaging in multi-actor democratic dialogue with natural and social sciences, and other knowledge systems.

ESSRG nourishes a collaborative and cooperative research approach, **involving various communities and stakeholder groups, while paying attention to those voices that are typically marginalized or those human and non-human actors who are voiceless.**

ESSRG is committed to **promoting process facilitation for collaborative science-society efforts and initiating transparent, inclusive and reflexive research and innovation processes** of participative problem definition and analysis, and working with citizens, policy-makers and researchers towards mutually desirable outcomes.

ESSRG, in all its activities, strives towards **social justice and ecological sustainability.**

5.2 Overview of the activity models

5.2.1 Short-term activity model

Brief description:

ESSRG, as a competence cell, currently operates legally as a for-profit company under Hungarian law, however, all actual research-development-innovation activities ESSRG pursues are funded from public money (mainly European Union), consequently, serves public good purposes. **ESSRG has set itself an agenda to re-think, in the long run, its legal status and find one better in line with its ethos and practice as a small R&D enterprise working for public good in a not-for-profit manner.**

ESSRG, as a competence cell, has currently its headquarter in Budapest, renting an office at Impact Hub Budapest (<https://budapest.impacthub.net/>), the Hungarian member of a global network of co-working spaces for social enterprises and other innovative initiatives. Since ESSRG has been involved in EU-funded projects, its geographical area of action is European, though with a clear Central-Eastern European and Hungarian focus. Currently, there are no plans to change either the headquarter or the geographical area of action

ESSRG has been founded in 2008, so the competence cell will form a part of an existing organisation. FoTERRIS and other related EU-projects (e.g. InSPIRES: <http://www.livingknowledge.org/projects/inspires/>, SCHIP: <https://www.socialchallenges.eu/>, SPARKS: <http://www.sparksproject.eu/>) will assist ESSRG to re-define its own identity and, accordingly, its strategy for operation as a R&D focused enterprise. Institutionalising the idea of a co-RRI competence cell is, thus, being carried out as a strategic renewal process for ESSRG as a whole.

Brief overview of the activity model:

ESSRG **aims to work in partnership with other knowledge-holders and like-minded researchers and innovators.** Over the years, some partnerships have been developed and joint projects have been carried out. All joint efforts are pursued in line with the participatory worldview and methodology of action research, community-based research, and cooperative research. However, the FoTERRIS transition experiment has made it clear to us that pursuing co-created research and innovation challenges conventional behaviour, mind-set, and roles, on the one hand, and requires the development of a service and/or tool that connects, so to say, the demand and supply for co-RRI. In addition, **neither demand nor supply is clearly manifested or formulated currently in Hungary, so most usefully the service/tool to be**

developed will contribute to structuring both sides to the extent needed and wanted, without risking the loss of diversity and plurality of approaches and views.

Therefore, building on existing capacities, experience and partnerships of ESSRG, steps are being taken to find a solution. More specifically, in partnership with Impact Hub Budapest, ESSRG offered a challenge under the SCHIP H2020 project (<https://www.socialchallenges.eu/city/18/Challenges/40>) and chose two so-called solution-providers (Makerspace.hu and Space Engagers). From April 2018 on, together with these partners (and possible others who are interested to join from the existing network of ESSRG), **we will work on developing an effective and inclusive service/tool of process facilitation for collaborative/co-creative research and innovation among diverse actors. SCHIP will fund the efforts of the two solution-provider partners.**

Developing a tool or service aims to support collaborative/co-created RRI with and for local society in Hungary in order to enhance transformative social innovation towards ecological sustainability and social justice. With the support of this service/tool, collaborative research and innovation activities could become more effective and inclusive. **It will complement, and support matchmaking and network building and knowledge sharing activities and will make easier to harvest collective intelligence for the common good.** It is envisaged as a non-commercial, open access service/tool for collaborative and distributed knowledge co-production that could mobilize researchers and local people in order to collaborate on solving social and/or environmental problems and to initiate co-created RRI activities. It assists the creation of a community of citizens, CSOs, research teams, SMEs, and other stakeholders who, through knowledge co-creation and sharing, will be empowered to take collaborative actions (matchmaking service). It will bring together diverse social actors and scientific communities in a mutually beneficial context where all participants can engage, listen and discuss, while diverse knowledge could be shared (learning service). The bringing together of researchers, participants of citizen science, RRI initiatives, living labs, Do it Yourself ('DIY') science activities, science shops, and other active stakeholders will build implementation capabilities in relation to support for "science with and for society" in the future in Hungary.

The existing network of ESSRG is an effective resource in pursuing competence cell activities for co-RRI.

For example, ESSRG has collaborated with Transition Wekerle citizen movement during the FoTERRIS transition experiment (TE) and co-designed a co-RRI project concept. Recognising the expertise needed for further development and subsequent execution of the co-RRI project concept, ESSRG has invited new experts to move the collaboration further with Transition Wekerle. This way, ESSRG builds on its existing network of partners (e.g. Corvinus Science Shop has provided expertise in the post-FoTERRIS phase) in carrying out co-RRI competence cell activities, relevant to local needs as understood through FoTERRIS TE. Eventually, ESSRG is enacting its commitment to connect local needs with relevant expertise and facilitate the process of co-RRI.

In other instances, e.g. within InSPIRES H2020 project, ESSRG sets processes in motion (e.g. science cafés) in order to formulate research agenda on specific topics/domains in an open dialogue (co-created research agenda). Ideally, research idea generation will be followed by effective collaborative research and innovation activities based on the shared learning of social needs and mobilising the resources of ESSRG's existing partner network.

Moreover, in the EKLIPSE H2020 project (<http://www.eklipse-mechanism.eu/>), ESSRG is contributing to developing a network of networks in the domain of biodiversity and ecosystem services research in order to support evidence-oriented policy-making. **This science-policy-society knowledge and learning mechanism being developed will provide some significant lessons for science-society interfaces, in general, and refining the governance mechanisms for co-created RRI competence cell activities.** In addition, within the FIT4FOOD project (<http://www.fit4food2030.eu/>), ESSRG has gained the (organisational and financial) possibility to develop a City Lab for sustainable food system research and development. ESSRG's City Lab will pilot action-oriented trainings for students, consumers, researchers and

professionals linking actors committed to co-created RRI (e.g. science shops) to networks of the Milan Urban Food Policy Pact cities in order to transform the current food system towards ecological sustainability and social justice.

In sum, ESSRG is forging all its current and future activities around an action-oriented, multi-actor, participatory approach while experimenting with enacting a co-created responsible research and innovation system in Hungary.

Governance:

The ESSRG competence cell functions in **a democratic way with a flat organisational structure**. Clearly, most power resides in the hands of the four owner-researchers of ESSRG with regard to making strategic and operational decisions and bearing subsequent responsibilities. However, operations are transparent, decisions are formed in an open dialogue, stakeholders are engaged or consulted with extensively. All activities of ESSRG are characterised by a commitment to deliberation and participation in the service of ecological sustainability and social justice. These values have formed historically the organisational culture and permeates all operations. Since all funding for ESSRG activities is based on public money, it is a must to be transparent and accountable. In the future, the legal form of the organisation will be adjusted better to the values underlying ESSRG's operation.

Partnerships	Activities	Missions	Image	Beneficiaries
<p>Peer organisations, transition communities and other bottom-up initiatives such as:</p> <p>Corvinus Science Shop, Corvinus Business School, Corvinus University of Budapest</p> <p>Research Centre, Faculty of Business Administration, University of Szeged</p> <p>Community-based Research for Sustainability Association (CRS), Szeged</p> <p>Impact Hub Budapest</p> <p>Makerspace.hu: Digital Community Workshop, Budapest</p> <p>Smart Healthcare Meetup, Budapest</p> <p>Space Engagers, Ireland</p> <p>Transition Wekerle, Budapest</p> <p>Science communication experts, journalists, social media experts, gamification experts</p> <p>Innovative education organizations</p> <p>FoTTRIS cells</p>	<p>awareness raising (advocacy and lobby)</p> <p>capacity building</p> <p>P2P networking and collaboration</p> <p>research and development (R&D) services</p> <p>Research agenda building</p>	<p>research with and for the people</p> <p>community-based research (CBR)</p> <p>cooperative research</p> <p>participatory action research (PAR)</p> <p>valorisation of diverse knowledge types</p> <p>inclusion of diverse knowledge-holders</p>	<p>better science-policy-society interactions</p> <p>research with positive social impact</p> <p>ESSRG as a significant initiator of co-RRI in Hungary</p>	<p>Partners (since we work in a collaborative way)</p> <p>transition communities</p> <p>social enterprises</p> <p>action researchers</p> <p>innovative niche actors</p> <p>social innovation community</p> <p>engaged scholars</p> <p>European/global networks of citizen science, science cafés, science shops, transition scholarship</p>
	<p>Resources</p> <p>Skills and knowledge</p> <p>Participatory expertise, facilitation skills, openness to experimentation, research skills, experience at science-society interface, commitment</p> <p>Humans</p> <p>ESSRG's researchers</p> <p>Materials/infrastructure</p> <p>Meetings spaces</p> <p>Digital infrastructure</p> <p>Equipment for education and training</p>	<p>Pain points addressed</p> <p>current structures for research and innovation focus only on homogeneous social groups and their concerns instead of being open</p> <p>latent interests of various social groups</p> <p>expected leading role of experts based on traditional research models (FoTTRIS showed that society expects researchers to behave according to the "researcher stereotype" (delivering papers, telling the way forward, etc.). However, in co-RRI one co-creates and not delivers in a one directional way. These expectations have caused some frustration of some participants because the process itself was considered the main lesson for learning and not so much tangible outputs as they expected.</p>	<p>Channels</p> <p>different types of face-to-face, participatory events (e.g. science cafés, planning workshops, problem-solving sessions, etc.)</p> <p>media and social media (primarily Facebook)</p> <p>FoTTRIS web-based platform</p> <p>New interactive online platform (tool developed under the SCHIP project)</p>	<p>Targets</p> <p>Public</p> <p>Policy-makers</p> <p>Research Performing Organisations</p>

Costs structure	Revenue streams
<p>Office's costs</p> <p>Cost for human resources will dominate</p> <p>Partners' costs (expert time and travels)</p> <p>some occasional other costs (incl. venue for participatory events, catering for events, accommodation and travel costs for some resource-poor participants)</p>	<p>EU-funding mostly in the form of H2020 projects</p> <p>Community and partners' resources kindly offered for free</p>

Figure 26: Hungary – short-term activity model canvas

5.2.2 Long-term activity model

It is unclear yet what will be the exact legal form of ESSRG in the long run. It is envisaged that the legal form will be adjusted to reflect more coherently the democratic ideal and participatory worldview ESSRG entertains. A deliberative process will assist us to find an appropriate solution among the potential legal forms (e.g. B-corp: benefit corporation, fair share company, non-profit Ltd, social cooperative, etc.).

No change is envisaged regarding the geographical area of action, with these respects at this point in time compared to the current situation.

No new legal entity is being planned, rather networking among diverse, multiple, independent actors are envisaged. Compared to the short-term, in the long run **it will be possible to make co-created responsible research and innovation operational in a wider network**. As detailed above, the demand and supply will better match, and a number of co-RRI projects will run. Awareness of co-created responsible research and innovation will be more widespread among the general public. Public policy-makers will start to engage with RRI actors and some changes to the research and innovation system (RIS) will be enacted in favour of co-RRI activities. However, the main objective is clearly **to run a network of co-RRI actors who collaborate on multiple projects towards ecological sustainability and social justice in Hungary**.

Not much can be said about the functioning due to inherent uncertainties in the long run. What is hoped for is that competence cell activities **will be enacted by more actors beyond ESSRG in a collaborative and networked fashion**. Co-created responsible research and innovation will function as a democratic alternative to the dominant RIS regime. How it will materialise is a question of further inclusive deliberation among multiple actors and the result of it cannot be predicted. It will be against the values explicated above to formulate at this stage a clear-cut alternative since it will close down too early future realities by only one actor.

Partnerships will move beyond the actors above and possible include: other RRI performing research organisations, CSOs acting towards sustainability, actors along the food supply chain who support sustainability and justice. a few local governments who are committed to participatory democracy	Activities networking among diverse actors explicitly committed to co-RRI collaborative project development and implementation advocacy and lobby for policy change co-RRI services provided	Missions research with and for the people community-based research (CBR) cooperative research participatory action research (PAR) valorisation of diverse knowledge types inclusion of diverse knowledge-holders	Image research with social impact towards improving ecological sustainability and social justice inclusive research and social innovation ethically and politically reflective research and innovation	Beneficiaries transition communities social enterprises action researchers innovative niche actors social innovation community engaged scholars European/global networks of citizen science, science cafés, science shops, transition scholarship
	Resources Skills and knowledge Participatory expertise, facilitation skills, openness to experimentation, research skills, experience at science-society interface, commitment System thinking, self-critical reflection, methodological toolbox, building and maintaining credibility, mechanisms development Humans ESSRG's researchers Materials/infrastructure Meetings spaces Digital infrastructure (online platform) Equipment for education and training	Pain points addressed structures for research and innovation focus only on homogeneous social groups and their concerns	Channels different types of face-to-face, participatory events (e.g. science cafés, planning workshops, problem-solving sessions, etc.) media and social media (primarily Facebook) FoTRRIS web-based platform New interactive online platform (tool developed under the SCHIP project)	Targets RPOs
Costs structure costs for human resources will dominate other costs of collaborative service/tool to be maintained			Revenue streams FP9 funding and other public sources	

Figure 27: Hungary – long-term activity model canvas

5.3 Details of the short-term activity model

5.3.1 Core activities

P2P Networking and Collaboration

Description, purpose & output	<ul style="list-style-type: none"> • Face-to-face events when planning for collaboration opportunities will be discussed. • Output might be a network of competence cells (Hungarian platform for co-RRI) in the long run, short term outcome will be a better understanding of each other and cooperative options.
Beneficiaries	Partners
Channels	Face-to-face events (e.g. hackathon, open space, scenario workshop, systems mapping workshop, world café, etc.), FoTERRIS web-based platform
Relationship	Cooperative
Resources	<ul style="list-style-type: none"> • Skills & knowledge: research skills, methodological knowledge, participatory expertise, facilitation skills • Humans <ul style="list-style-type: none"> ◦ Internal (people working in your cell): ESSRG's researchers • Materials / infrastructures: space for face-to-face meeting in a democratic setting
Partnerships	Partnership with like-minded (i.e. committed to democracy, co-creation, participation) research performing organisations (RPOs)
Costs	<ul style="list-style-type: none"> • Costs for venue and catering • Personnel costs (expert time)
Revenue streams	<ul style="list-style-type: none"> • No commercial viability • Project-based funding by ESSRG

Research and Development Services

Description, purpose & output	<ul style="list-style-type: none"> • Contribute to exploring and searching for solution to community problems through participatory action research and other related research approaches. • Output is dependent on the problem under investigation, outcomes are joint actions and co-created solutions to the problem in question. • The purpose is to enable community actors and researchers to work together on relevant issues.
Beneficiaries	Communities – their concerns are addressed, solutions are provided in a participatory, co-created process
Channels	Face-to-face events, social media (primarily Facebook in Hungary)
Relationship	Co-created, cooperative, empowering, equal partnership

Resources	<ul style="list-style-type: none"> • Skills & knowledge: participatory methodologies (facilitation, moderation, mediation, communication, openness, flexibility) • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): ESSRG's researchers ○ External (partnership): depending on the issue addressed • Materials / infrastructures: venue for community events, digital infrastructure
Partnerships	Primarily with transition communities and other bottom-up sustainability initiatives
Costs	<ul style="list-style-type: none"> • Dependent on the issue addressed, but human resources will probably dominate the cost structure • Monetary and/or non-monetary compensation to participants
Revenue streams	<ul style="list-style-type: none"> • Non-commercial • Funded by ESSRG's project • Occasionally, communities are also able to contribute with significant material assets (e.g. community space, community dinners, etc.)

Awareness Raising (incl. advocacy and lobby)

Description, purpose & output	Typically, those who do research and innovation in the ethos of co-creation and responsibility are not joining forces in order to being visible to the public and policy-makers – thus, awareness-raising is needed in order to demonstrate the viability of co-RRI as an alternative to the dominant R&I system. A critical mass of co-RRI committed stakeholders will be attempted to build-up.
Beneficiaries	Those researchers who pursue and committed to the ethos of co-RRI
Targets	General public, policy-makers, RPOs
Channels	Media (press, social media), stakeholder group dedicated offline events (e.g. science cafés, workshops, etc.)
Relationship	Dialogue-based science communication
Resources	<ul style="list-style-type: none"> • Skills & knowledge: communication, rhetoric, social media use, journalism, experience at science-society interface activities and methods to be applied, facilitation, community development, learning by doing, gamification • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): ESSRG's researchers ○ External depending on the issue addressed, providing the skills that ESSRG has not • Materials / infrastructures : online infrastructure, suitable venues
Partnerships	Science communication experts, science journalists, social media experts, gamification experts
Costs	<ul style="list-style-type: none"> • Cost of venue • Cost of expert time devoted to communication activities • Personnel costs
Revenue streams	<ul style="list-style-type: none"> • No revenue envisaged

Capacity building

Description, purpose & output	New roles and behavioural routines are to be institutionalised in the expectation of multiple actors involved in co-RRI that requires experimentation, practices, and reflection.
Beneficiaries	Diverse actors open to learn and re-define the role of research/science in society
Targets	Primarily RPOs, secondarily all other actors interested in co-RRI
Channels	Online and offline learning and reflection events
Relationship	Peer learning, collaborative learning, reflective
Resources	<ul style="list-style-type: none"> Skills & knowledge: education and training, experimentation, pedagogy, openness to experimentation, self-reflection, pedagogy, training Humans: <ul style="list-style-type: none"> Internal (people working in your cell): ESSRG's researchers External (partnership, if any describe quickly the partnership): Trainers Materials / infrastructures: space and equipment for education and training
Partnerships	Makerspace.hu and other innovative education organisations
Costs	<ul style="list-style-type: none"> Costs of space and equipment Costs of partners (trainers) Personal costs
Revenue streams	<ul style="list-style-type: none"> Project-funding

5.3.2 Support activities

Management and administrative support

Description, Purpose	Typical organisation's management. ESSRG will provide administrative support to the competence cell activities.
Resources & partnerships	<ul style="list-style-type: none"> Skills & knowledge: Management skills and administrative procedures Humans: <ul style="list-style-type: none"> ESSRG personnel Materials: administrative software and storage
Costs	Cost of personnel
Revenue streams	Project funding and other margins

5.3.3 Channels

Science café (science espresso)

Channel	An informal, democratic setting, prone to dialogue, preferably organised in a coffee shop. One or more researchers/experts are invited to introduce a topic of high social relevance and discuss it with anyone who attends the event.
Purpose	Research agenda building
Cost	No cost, or if participants are invited for a coffee
Rationale	We like the informal atmosphere and enjoy inviting diverse experts on a topic, and experiment with diverse topics whether they meet the interest of citizens or not.

Facebook

Channel	In Hungary, Facebook is the most popular social media. We have learnt from the FoTERRIS TE that local communities are also using it to share information and organise themselves. It seems inevitable to use it if one wants to reach out to a diverse civil audience.
Purpose	To disseminate information and engage a diverse public.
Cost	No cost
Rationale	Most popular social media in Hungary, many communities use it by creating special topic groups.

5.3.4 Partnerships

Corvinus Science Shop (CSS)

Describe your partner and the partnership	Corvinus Business School (CBS), Corvinus University of Budapest (CUB) has recently established, with the support of EnRRICH H2020 project, this new unit (located in the Dean's Office in the organisational structure) in order to institutionalise science-society interaction. ESSRG, as a Hungarian contact point, has supported CSS with a link to the Living Knowledge Network (international science shop network) and we currently collaborate on the organisation and hosting of the 8 th Living Knowledge Conference at the premises of CUB.
Purpose & implementation	Corvinus Business School (CBS) has expertise on a domain which will be unique and helpful to many local communities. ESSRG can assist channelling local community needs towards CSS where it seems relevant.
Cost	so far, no costs
Rationale	There is a cooperative history at personal level between CSS and ESSRG researchers that has created trust. There is complementary expertise that can enrich each other.

Makerspace.hu

Describe your partner and the partnership	Makerspaces provide digital community workshop all over the world. They are technically equipped, accessible community spaces. Making (general term for DIY activities) is connected to community building and empowering citizens in a more and more digitalised world. ESSRG has collaborated with Makerspace.hu and Health Science Meetup in organising a hackathon event on human sensing (incl. issues of air and noise pollution).
Purpose & implementation	Makerspace.hu provides a physical space for face-to-face, collective events of DIY types.
Cost	<ul style="list-style-type: none"> • Cost of mentors (often it is provided for free) • Cost of equipment
Rationale	Community space with support staff committed to empowering citizens in the digital age in transforming their life towards sustainability. Motivating atmosphere for deep learning.

FoTERRIS competence cells

Describe your partner and the partnership	FoTERRIS project has contributed to the establishment of competence cells in Austria, Belgium, Italy, and Spain (beyond Hungary). Since we have developed together the idea of co-RRI competence cells, it is natural that cooperation at European level will continue among FoTERRIS co-RRI competence cells.
Purpose & implementation	Sharing of knowledge and experience, disseminating the idea of co-RRI in Europe
Cost	Cost of meetings
Rationale	Since all 5 FoTERRIS co-RRI competence cells have experimented with different substantive domains during FoTERRIS TEs, it seems valuable to share insights and learn what works well over diverse domains and what does not. In addition, there is possibility to link each other to RPOs that work in the same domain, therefore they might be influenced towards co-RRI.

Research Centre, Faculty of Business Administration, University of Szeged

Describe your partner and the partnership	Researchers working for the Research Centre has been collaborating with ESSRG for years. First collaborative project was carried out in the work package of Local Human Rights of the PERARES FP7 project. Joint academic publications have also been produced. It is a long-term research relationship based on trust, quality of work, and commitment to participatory action research.
Purpose & implementation	The Research Centre runs a service learning course and participatory action research projects in the service of civil society organisations and marginalised communities in the town of Szeged and South Hungary.

Cost	<ul style="list-style-type: none"> • Cost of research personnel • Cost of travel
Rationale	<ul style="list-style-type: none"> • Sharing of knowledge and experience, developing methodologies for co-RRRI projects, collaborating in competence cell activities, advocacy within the Hungarian academic sphere.

CRS, Community-based Research for Sustainability Association, Szeged

Describe your partner and the partnership	CRS is a non-profit association carrying out advocacy and providing research-related services for co-created, participatory research projects that benefit primarily marginalised social groups and communities. CRS has a good network within South-Hungarian CSOs committed to ecological sustainability and social justice. CRS has a special expertise related to nature conservation research.
Purpose & implementation	Sharing knowledge and experience, widening geographical scope of influence within Hungary, reaching out to CSO sector in Hungary. Advocacy for ecological sustainability and social justice.
Cost	<ul style="list-style-type: none"> • Cost of personnel • Cost of travel
Rationale	CSO sector has direct contact to local communities that will make awareness-raising and dissemination activities more efficient. CSOs can directly channel local knowledge needs towards the research and innovation system (RIS).

Impact Hub Budapest

Describe your partner and the partnership	Impact Hub (IH) Budapest provides a co-working space and offices for socially innovative initiatives, social businesses, and responsible entrepreneurs. IH is a global network of co-working spaces that provides additional benefits to each member. ESSRG rents an office and (co-)organises events in IH Budapest, collaborates with other members of IH, and participates, as a challenge-owner, in the SCHIP H2020 project in which IH Budapest is a consortium partner.
Purpose & implementation	IH provides opportunity for networking with other like-minded organisations and individual entrepreneurs, provides an opportunity for a global reach, provides business development services, committed to ecological sustainability and social justice.
Cost	Cost of office
Rationale	IH provides venue and basic catering for free if necessary.

Transition Wekerle

Describe your partner and the partnership	Transition Wekerle (TW) is a local manifestation of the global Transition Town Movement. ESSRG has a long-term relationship with some of the activists. TW is very innovative for ecological sustainability and social justice and ready to collaborate with researchers and other knowledge-holders to share knowledge and experience and are open to learn from others.
Purpose & implementation	TW is a space for experimentation and learning. TW has built a network of like-minded communities that share knowledge and experience with each other.
Cost	<ul style="list-style-type: none"> • Cost of venue (often it is provided for free) • Cost of mentors, facilitators (often it is provided for free) • Cost of experts
Rationale	TW can express local knowledge needs, provide access to other local community initiatives with a socially innovative character, provide an attractive and easy-to-communicate example

Smart Healthcare Meetup (SHM)

Describe your partner and the partnership	So far, it was a one-event partnership for a hackathon on Human Sensing. However, it worked out well and SHM, in collaboration with Makerspace.hu, will work with ESSRG within the SCHIP H2020 project as service-provider for the challenge ESSRG has submitted.
Purpose & implementation	Solving the challenge to provide offline and online matchmaking space for co-RRR projects to be developed.
Cost	Cost of mentors (often it is provided for free)
Rationale	SHM has expertise in organising science meetups and providing business development services. SHM is connected to business mentors and investors.

Space Engagers

Describe your partner and the partnership	Space Engagers is a social enterprise in Ireland enabling communities to engage with local issues and spaces that matter to them through interactive mapping. They have expertise to bring together the observations, knowledge and ideas of citizens into one map to help reveal the bigger picture and provide a platform for discussion and innovation.
Purpose & implementation	Solving the challenge to provide offline and online matchmaking space for co-RRR projects to be developed. Space Engagers will work, in cooperation with Makerspace.hu and Smart Healthcare Meetup, to provide solution to the challenge ESSRG has submitted to SCHIP H2020 project.
Cost	<ul style="list-style-type: none"> • Cost of expert time • Cost of travel
Rationale	Space Engagers has developed a mobile app and possesses expertise to developing online solutions for community engagement, citizen science, DIY science.

5.3.5 Viability

Economic balance	
Costs	Revenue streams per cost
Office at Impact Hub	Projects funded
Venues	projects or, sometimes, provided for free
Catering	projects or, sometimes, basic catering is free or self-provided (community sharing)
Communication	projects
Partners' personnel costs	projects or, in some occasions, provided for free (voluntary work or pro bono contribution)
Education and training equipment	projects or, sometimes, or sometimes, free
ESSRG's personnel costs	Projects
Monetary and/or non-monetary compensations	Projects
Travels costs (to meet the other cells and partners)	Projects
Viability	
In the short run (1-3 years), ESSRG is able to fund these activities from current projects.	

5.3.6 Assessment of the short-term activity model

Desirability

- ESSRG has been running for several years so their activities are viable and have an audience. Furthermore, the FoTERRIS' transition experiments showed that there is a need to match the demand and supply for co-RRI. ESSRG's cell will work towards matching S&D with their partners.

Feasibility

- ESSRG is already functioning according to co-RRI values, so most of the skills are already present in-house.
- For the other skills (journalisms, pedagogy, etc.) ESSRG works with trusted partners.
- Apart from skills, the other resources needed will be funded through projects or provided by partners based on reciprocity.

Viability

- The competence cell will follow the activity model currently in place at ESSRG, which proved to be viable in the past 10 years. Nevertheless, SWAFS project funding by EU constitutes a key resource in continuing ESSRG's operation as a co-RRI competence cell.

Effectiveness

- ESSRG's mission is pragmatic and action-oriented, and there is a complete match between the actions implemented and the mission. Furthermore, the activities are inspired from the field of

transition management studies (growing networks, awareness raising, capacity building), so they are adapted for participating in the transformation of the R&I system towards a co-RRRI system.

- ESSRG has established close and trustful relationships for years with most of their partners, so they have a working network of various like-minded partners (incl. other SMEs, CSOs and NGOs, activist-researchers).
- ESSRG is part of a network for co-RRRI (i.e. FoTERRIS partners), so in that sense, the activity model of ESSRG is scalable since the aim is to share experience and sustain this network over years.

Efficiency

- The commitment of ESSRG to become a cell makes use of the chances for developing these activities, for they will rely on the existing capabilities.
- The channels are well-established: selected according to the beneficiaries' taste and/or able to support democratic dialogue, decision-making and collaborative work, and their costs are low (free or cheap).
- Thanks to its partnerships and collaborative approach, ESSRG benefits from getting certain resources free or at low cost.

5.4 Details of the long-term activity model

5.4.1 Core activities

For the long-term model, it is expected that capacity building and awareness raising activities will have born fruits, and that they won't be as needed as in the short-term. So, ESSRG will move towards more advocacy and lobby for policy change, and the development of a network of like-minded partners for implementing, at a larger scale, co-RRRI projects.

Co-RRRI Project Development and Implementation

Description, purpose & output	<ul style="list-style-type: none"> • Actual sustainability related issues will be addressed by multiple actors in a co-creation process, from problem co-definition to joint actions and reflection. Projects will be more like experiments, issues addressed in an emergent, flexible process. • The main outcomes to be expected will be empowerment and co-learning. • The purpose is to work together on understanding and exploring actual sustainability issues as systemic problems and initiate joint actions in order to gain more understanding of the system and the way it can be changed.
Beneficiaries	Local communities – their concerns addressed
Targets	RPOs
Channels	Depends on the issue at hand
Relationship	Co-creation, cooperation
Resources	<ul style="list-style-type: none"> • Skills & knowledge: systems thinking, self-critical reflection, facilitation, methodological toolbox, expertise on the substantive components of the issue at hand • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): ESSRG's researchers ○ External (partnership) • Materials / infrastructures: depending on the issue at hand
Partnerships	Depending on the issue at hand

Costs	<ul style="list-style-type: none"> • Personnel costs • Cost of face-to-face meeting
Revenue streams	<ul style="list-style-type: none"> • Non-commercial • Most probably project funded

Networking

Description, purpose & output	<ul style="list-style-type: none"> • Building and operating of a network of co-RRRI competence cells, those researchers and innovators who are committed to co-creation, participatory worldview, and democratising RIS. • Output may be a mechanism for collaboration (not yet clear whether a non-monetary mechanism can be built) • It is aimed to contribute to the emergence of a critical mass for co-RRRI.
Beneficiaries	Research groups and social innovators in search for wider cooperation
Targets	Research and innovation providers, RPOs
Channels	Professional contacts
Relationship	Cooperative, co-learning
Resources	<ul style="list-style-type: none"> • Skills & knowledge: building and maintaining credibility, facilitation, communication, participatory process management, mechanisms development • Humans <ul style="list-style-type: none"> ◦ Internal (people working in your cell): ESSRG's researchers • Materials / infrastructures: probably online infrastructure needed
Partnerships	Like-minded research and innovation performing organisations
Costs	Cost of online infrastructure
Revenue streams	<ul style="list-style-type: none"> • Non-commercial • Voluntary

5.4.2 Viability

Economic balance

Costs	Revenue streams per cost
The type of economic balance is the same as for the short-term model (mostly personnel costs covered by project-funding).	

Viability

Viability in the long-term primarily depends on project funding from public budget. Since co-RRRI projects have a public/community purpose, it is not possible and not even desirable to fund them from private sources beyond actual participants' contribution. Huge uncertainties exist with regards to all components in the long run. Consequently, no firm ground to predict viability.

5.4.3 *Assessment of the long-term activity model*

The assessment of the long-term model is the same than for the short-term model since the activities will be similar. Perhaps, the feasibility decreases slightly since more volunteering work is expected.

5.5 *Path from the short-term to the long-term activity model*

The shift from the short- to the long-term activity model will be iterative and will take shape as the network of partners engage and develop common practices and projects. Some workshops for networking and co-designing collaboration will be undertaken to make this happen. This transformation will rely on project-funding and personal commitment. So, there is no specific cost either. Since this is an 'organic' transformation, it is considered feasible, but the main risk will occur with extending current partnerships towards a wider network. It is still a concern whether other potential partners will be interested to cooperate and will commit themselves (and, if so, to what extent). They may be too much focused on their day-to-day survival and have no slack to invest in building and maintaining cooperation.

5.6 *Conclusion*

ESSRG will become, as a whole, a competence cell. Committed since its creation to similar values than the ones of co-RRI, it feels natural, organic, to now integrate co-RRI activities. The fact that ESSRG as a whole commits to co-RRI is a strong leverage in the advancement of the transformation towards co-RRI since we have a long-standing experience in this kind of activities and a well-established network of like-minded, trusted partners. This leverage is directly visible in the new project that we will work on in the next months: the development of a matching service for co-RRI demand and supply. That was made possible thanks to our partnership with Impact Hub Budapest and involvement in the SCHIP H2020 project. Despite the difficulty to be sure whether this is the most promising way to be a competence cell, since more deliberation and experimentation is needed to assess its effectiveness, we tend to think that the key activity that will allow co-RRI competence cell to foster a change towards co-RRI (both from the short-term and long-term models) is P2P networking and building a platform of like-minded researchers and innovators. It seems although obvious that such co-RRI activities will continue since they address actual, relevant, pressing concerns of local communities aiming for sustainability. If our main goal is to build a partnership for co-developing many co-RRI projects, we see some major risks that may endanger it: (i) general atmosphere hostile to anything that is collective (see the history of the CEE region), (ii) lack of trust and skills for cooperation, (iii) a competitive attitude as opposed to a cooperative one, particularly in condition of scarce resources, (iv) lack of time to be devoted to a new joint endeavour, (v) lack of policy commitment to change RIS at EU and national levels.

If these are true risks, however, many co-RRI activities can continue to be undertaken through project-funding, in which we have a sufficient experience to say that it is viable on the long-term.

6 Ibero-American competence cell (UCM)

6.1 Mission

Context & problems addressed

UCM is used to work in partnerships with Ibero-American universities, so we have noticed that the interest for RRI has extended beyond Spain. In fact, **the interest has reached other countries such as Portugal, Mexico, Colombia and Brazil**. Taking into account that RRI is practically unknown in Latin-American countries, **we have decided to orientate our actions towards the development of the co-RRI concept over there** by articulating **the competence cell as an Association of different hubs in several Ibero-American countries**.

This choice relies on the momentum that RRI is gaining in Europe, and the inspiration that European R&I strategy produces in the research agendas of countries in the Latin-American region. Because these countries are currently working on the transformation and modernization of their R&I structures and strategies, this is a good time to participate in that process and influence for the inclusion of RRI principles. This has been one of the main motivations to develop this association with this specific geographical scope.

Vision

The Association RRI Ibero-America **follows the steps of FoTERRIS, so its vision is that of co-RRI to deal with the societal impact of research and innovation**.

The co-RRI concept is oriented towards humans' and the planetary well-being, and acknowledges related international agreements to enhance ecological, social and economic sustainability. Thus, co-RRI activities build on a moral commitment to safeguard equal access to ecosystem services for all, including future generations, economic prosperity and social justice within planetary limits. This is achieved through a working methodology that is based on a system thinking approach, to address local manifestations of global challenges. Co-RRI aims at better understanding root causes and lock-ins of these challenges by means of a systemic analysis in order to bring a range of thinking about possible alternative solutions to the forefront.

Given the potential impact of RRI projects, they have to be carefully planned and monitored all along their lifecycle, with the cooperation of representatives from all different sectors, what is defined as the 4-helix (civil society, academia, business, public government). Inclusivity is very relevant in this context to enhance a cooperative and collaborative process, all committed to reflecting upon and transforming the research and innovation system.

In order to foster inclusiveness and equal participation, co-RRI processes go along with transparency, access to information, and capacity-building, which enables actors engaged to evenly contribute to the process. The co-RRI concept acknowledges that research and innovation do not take place completely detached from societal and political discourses. Moreover, co-RRI processes involve reflections, which build awareness that making choices with ethical and political implications during the co-RRI process is inevitable; therefore, it emphasises the importance of reflexivity.

This is a long-term vision that requires building and institutionalising a network of relationship among diverse actors that continuously channels in new problems to be addressed, creatively refines and develops methodologies, processes and tools, and nurtures the commitment of multiple actors to participate in research and innovation.

Mission

The Association RRI *Ibero-America* has the overall mission to **promote changes in the R&I system to generate RRI initiatives in the Latin-American countries**. This mission is further subdivided:

- To expand the principles and ideas of RRI in Latin-American, Portugal and Spain,
- To facilitate the application of RRI where it is already known (Portugal and Spain)
- To develop and implement the concept of RRI further and provide a base for research, sharing and training on these issues.

The role of the association is to develop in the Ibero-America research community, starting from an initial set of members who are committed to share the association's vision, and to incorporate new members as the concept expands.

This influence in the R&I system can be achieved by putting RRI into practice and showing that the results arising from RRI projects have more impact in terms of benefits to the society as well as contribution to sustainability. Future members of the Association have already changed their working methodology and team composition in the last years to become more inter-disciplinary, inclusive, and gender reflexive. This transformation has been the key of their success, since their organisations have considerably grown during the current crisis period. RRI will then be promoted as an opportunity to differentiate and to gain greater impact of the R&I activities.

6.2 Overview of the activity models

6.2.1 Short-term activity model

At the beginning of the FoTERRIS project the intention was to create a co-RRI competence cell in the UCM university, more specifically as a section of the Research Support Office, to promote and support RRI when defining new research projects. However, we have realised that this depends highly on the institution, and the current people in charge are not ready to compromise for RRI, which poses some uncertainty on the sustainability of a CC hosted at the University.

More positive has been the experience with the development of the Transition Experiments as they have facilitated to show what RRI is in practice, which has motivated several persons to approach the UCM FoTERRIS team to see whether it is possible to have further support and assessment on RRI at their organisations. We have been also invited to present the project in different sites and to assess on RRI issues, and have been asked how this assessment could be formalised.

These two aspects have shown that the context is different from the initial expectations, but that there is an opportunity to have a broader scope for the CC, that is, to develop RRI in the Ibero-American region.

That is why, we have decided to articulate the CC as an Association of different hubs in several Ibero-America countries to facilitate the spread of RRI and enrich the experiences from different cultural and socio-economic contexts. This larger scope of action can also contribute to a better sustainability after the end of the FoTERRIS project. The use of Spanish and Portuguese languages will also enable the access to a wider community.

Therefore, we describe here **the activity model of the Association, which is created and led by the UCM FoTERRIS expert group** (the activities described hereafter are therefore undertaken by the Association's members).

The Association RRI Ibero-America is a **new autonomous legal entity** registered in the [Spanish National Registry of Associations](#). The statutes and legal responsibility are subject to the law of Spain.

Initially, **UCM is leading the association and the headquarters are in UCM**. There are different hubs in different countries, with the first members being organisations from Spain (UCM, UNED, UC3M, University of Valladolid) Portugal (Univ. Minho), Mexico (Universidad del Caribe – UniCaribe), Brazil and Columbia. The Association is aiming at a diversity of members, with represents of the quadruple helix. UCM has already started to organise workshops with the first members in order to show them FoTERRIS co-RRI methodology and tools, and set up the collaboration mechanisms. **This has started now with workshops in some of the sites: UniCaribe (Dec. 2017, Mexico), Univ. Valladolid (March 2018, Spain), and UCM (March 2018, Spain)**. This has allowed to put together the members to create the association.

The Association will be active **in training, consultancy, dissemination and development of RRI**. This implies the development and support with the infrastructure and means to **build RRI hubs** and **sharing the expertise of the different members and projects**, to improve the knowledge and facilitate synergies among members. This will have an effect on strengthening the association, both in quality (more knowledge, well proven methods and tools) and quantitatively (larger number of hubs, members, projects).

In the short-term the association will work in the following types of activities, which will be performed by the members of the association in the short term and by association's employees in the long term:

- **Dissemination of co-RRI** through conferences, seminars and publications.
- Development of the **mechanisms and governance model for the Association** (this is described in D2.3 Governance model deliverable).
- Development of **infrastructure for co-RRI hubs**.
- Development of the **web page and social media** for the Association.

These activities will be initially supported by the altruistic efforts of the members⁴, but fees will be requested for participation in events (conferences, workshops, seminars) and other activities of the association (such as conferences, training, consultancy, participation in projects, etc.), which will be used to provide income for assuring the viability of the association.

⁴ The association members are individuals, however, they also belong to their home organization (such as UCM, etc.). When their home organizations are willing to support the association by providing in-kind contributions or any other support, we refer to them as « sponsors ».

Partnerships GitHub community Sponsors (members' organisations) Experts	Activities Dissemination & knowledge sharing Training Consultancy Co-RRI Projects Maintenance & upgrade of the online platform	Missions Promotes changes in the R&I system to generate RRI initiatives in the Latin-American countries Create a community of people Provide a base for research, sharing and training Support RRI projects	Image Expert centre but in the same time open and collaborative	Targets & beneficiaries Research community NGOs Research policy makers Industry Platform's users Communities or organisations willing to explore the creation of a co-RRI project
	Resources Expert staff (conference organisation, training, RRI, IT development, proposal building, consultancy) Online platform Materials (rooms, catering, courses) IT (webserver)	Pain points addressed Social exclusion Sustainability Ecosystems at risk Underused P2P models	Channels Website Social media Online platform E-mailing Call for papers Networking	
Costs structure Administrative & expert staff Materials (rooms, training materials) Infrastructure (IT – online platform) Invited experts (programme committee) Sub-contracting for administrative management			Revenue streams Internal resources (membership fees, & in-kind contributions from sponsors) Conference, seminars, training, consultancy fees Participation in R&I projects and networks	

Figure 28: Spain short-term activity model canvas

6.2.2 Long-term activity model (Figure 29)

Partnerships	Activities	Missions	Image	Targets & beneficiaries
GitHub community Experts	Dissemination & knowledge sharing Training Consultancy Co-RRI Projects Maintenance & upgrade of the online platform Fellowships programmes	Promotes changes in the R&I system to generate RRI initiatives in the Latin-American countries Provide a base for research, sharing and training Support RRI projects Influence R&I agendas <u>Networking</u>	Expert centre but in the same time open and collaborative	Research community NGOs Research policy makers Industry Platform's users Communities or organisations willing to explore the creation of a co-RRI project
	Resources Expert staff (conference organisation, training, RRI, IT development, proposal building, consultancy) Online platform Materials (rooms, catering, courses) IT (webserver) Headquarters Office	Pain points addressed Social exclusion Sustainability Ecosystems at risk Underused P2P models	Channels Website Social media Online platform E-mailing Call for papers Networking	
Costs structure Administrative & expert staff Materials (rooms, training materials) Infrastructure (IT – online platform) Invited experts Fellowship programme's funding Sub-contracting for administrative management			Revenue streams Internal resources (more membership fees (since there are new members in the association)) Conference, seminars, training, consultancy fees Increased project funding through participation in National and EU programmes (since the association will be at its cruising speed)	

Figure 29: Spain long-term activity model canvas

In the long term it is expected that the Association RRI Ibero-America will be a well-established institution, **well recognized in the Ibero-American region as the main reference for RRI**. Because the association adopts an open approach, it is expected to have **more hubs in more countries**. This may imply that similar associations are constituted at national levels, and that there will be a board with representatives for each country, in a similar way as other Ibero-American scientific associations. The types of activities, in principle, will be similar to those defined before, although they will evolve with further specialization, as the experience demands.

The association should be **financially more autonomous and should not rely on the resources of the members. There should be regular staff with specialization for different tasks.**

6.3 Details of the short-term activity model

6.3.1 Core activities

Organisation of workshops and conferences on RRI

Description, purpose & output	<p>A core activity for dissemination is the organisation of workshops on specific topics of RRI and general conferences.</p> <p>Participants will be enriched by the exchange of experiences on RRI and find new project opportunities and ideas and will have the possibility to network.</p> <p>Association's members collaborate to organise these events, most members have expertise in organizing this kind of events.</p>
Beneficiaries	<p>Research community is the main beneficiary, in order to facilitate their transition to RRI, but in principle all stakeholders should make profit of knowing about RRI and how to apply it:</p> <p>NGOs can find what RRI can do for their goals; Policy makers will learn about the benefits of RRI and how can they contribute to apply it, and industry can increase their corporate responsibility.</p>
Channels	<p>Call for papers through e-mailing, web site, social networks. Scientific publications in open journals.</p>
Relationship	<p>Formal and tailored conferences.</p> <p>Conferences and workshops will be setup as standard R&I events. However, some workshops will be more specific oriented to address concrete issues, and the participation will be more focused to specific stakeholders and their way of working.</p>
Resources	<ul style="list-style-type: none"> • Skills & knowledge: setting a conference • Humans: <ul style="list-style-type: none"> ○ Internal (from the association): Event organisers (from one or several hubs) ○ External: a programme committee (a set of experts) will be invited to collaborate with this role as in scientific conferences and workshops. • Materials / infrastructures: <ul style="list-style-type: none"> ○ Conference and meeting rooms. Catering. ○ Co-RRI web platform for coordination of the organising committee.
Partnerships	<p>Experts for the programme committee.</p>
Costs	<ul style="list-style-type: none"> • Location of the workshop/conference site. • Catering. • Flyers, roll-ons, and other printed material.
Revenue streams	<ul style="list-style-type: none"> • Registration fees • In-kind contributions from members (conference, meeting rooms) and sponsors (public and private)

Partnership in Projects

Description, purpose & output	The association will be available to participate as a partner in project proposals. This could allow several members to participate as a single partner in some calls where the number of partners is recommended to not be too large. It is also a way for funding the costs of staff working in the Association.
Beneficiaries	Members of the association
Targets	Research consortia
Channels	Networking
Relationship	Research partnerships
Resources	<ul style="list-style-type: none"> • Skills & knowledge: <ul style="list-style-type: none"> ○ RRI applied in different areas. ○ Project proposal development. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): Researchers. ○ External (partnership): Partners for project proposals.
Partnerships	R&I actors (from the quadruple helix)
Costs	<p>Internal resources for preparation of the proposal.</p> <p>Further costs depend on the project</p>
Revenue streams	Project funding of successful projects (direct and indirect funding)

Training on co-RRI

Description, purpose & output	An important activity for the application of RRI will be training staff of different stakeholders' organisations on co-RRI methods.
Beneficiaries	Initially, research organisations. Later on, there can be specific training for other stakeholders (e.g. industry, policy makers).
Channels	Emailing of training courses. Description of courses on the website.
Relationship	Provision of services by an expert centre
Resources	<ul style="list-style-type: none"> • Skills & knowledge: <ul style="list-style-type: none"> ○ Expertise in co-RRI. ○ Facilitation & training skills • Humans: <ul style="list-style-type: none"> ○ Internal: co-RRI experts and facilitators • Materials / infrastructures: Course material. Meeting room. Co-RRI web-based platform.

Partnerships	None
Costs	<ul style="list-style-type: none"> • Location of spaces • Course material printing • Experts & facilitators salaries <p>Cost amount and other costs depend on the course duration and number of attendants.</p>
Revenue streams	Tuition fees

Consultancy on RRI

Description, purpose & output	The association will provide consultancy services on RRI. For instance, to implement a co-RRI process for a specific community or organisation.
Beneficiaries	Communities or organisations willing to explore the creation of a RRI project.
Channels	Description of RRI consultancy services on the website.
Relationship	Consultancy, but it will be possible to develop a partner relationship in the resulting projects.
Resources	<ul style="list-style-type: none"> • Skills & knowledge: Expertise in co-RRI. Facilitation skills • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): CC experts on co-RRI and facilitators. • Materials / infrastructures: Co-RRI sessions material. Meeting room. Co-RRI web-based platform.
Partnerships	None for the consultancy, but then the beneficiaries can become partners
Costs	<ul style="list-style-type: none"> • Location of spaces • Course material printing • Experts & facilitators salaries <p>Cost amount and other costs depend on the course duration and number of attendants.</p>
Revenue streams	Consultancy fees

6.3.2 Support activities

Communication on Public Web and Social Networks

Description, Purpose	<p>The association has to be present on the Web and main social networks (Twitter, Facebook, LinkedIn, others of relevance) to disseminate the image of an expert, but open and collaborative, centre.</p> <p>Relevant information describing the association, and the events and achievements, can be made available to the public through these means.</p>
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: Web administration. Content provider. • Humans: <ul style="list-style-type: none"> ○ Internal: Community manager. Contributions by members. • Materials / infrastructures: Web server.
Costs	Web server maintenance (very affordable)
Revenue streams	Association's internal resources

Administrative management

Description, Purpose	Administration of the bureaucracy of the Association: finance, administrative support of activities, etc.
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: Administration, organisation, financial reporting • Humans: <ul style="list-style-type: none"> ○ Internal: organizers of activities. ○ External: financial and legal administration will be subcontracted. • Materials / infrastructures: Documentation organisation, communication tools.
Costs	<ul style="list-style-type: none"> • Subcontracting costs • Salaries
Revenue streams	The cost of administration of an association in Spain is low, and can be easily assumed by the association revenues.

6.3.3 Platform activities and maintenance

Platform activities and maintenance

Platform's purpose	<p>To support knowledge sharing, communication, and the co-RRR process, a web-based platform will be provided (this will be an evolution of the FoTERRIS platform). There are two main types of activities:</p> <ul style="list-style-type: none"> • Maintenance of the platform: How to setup the platform, configuration, monitoring, regular backups, users and groups administration, etc. • Evolution of the platform: New functionality can be developed, as well as error correction and performance improvement. The source code is available on GitHub. <p>The online platform⁵ is a tool to guide a project through the steps of the co-RRR method and facilitate the exchange and mutual learning among Co-RRR practitioners. Any organisation can use this platform and administrate projects by themselves. The platform publishes information on the projects that have been created with it. All visitors, even those who are not registered in the platform, can access this information. This provides also an opportunity to ask for collaboration in a project. Several collaborative tools are available:</p> <ul style="list-style-type: none"> • Online communication with a chat tool. • Online collaborative edition of documents with a collaborative pad. • Dissemination with a tool to generate public information on the project. • A searchable repository of past projects.
Beneficiaries	<p>The platform will serve internally for the association (current members and future hubs), but will benefit also other FoTERRIS' competence cells, as well as any other individuals, groups or organisations that can benefit from it.</p>
Maintenance activities	<p>Maintenance of the platform will be performed by the association (how to setup the platform, configuration, monitoring, regular backups, users and groups administration, etc.)</p> <p>Evolution of the platform will be performed on GitHub, so it will be based on volunteers, which is a common model in open source development. In the future, the association will try to find the means to hire some developers.</p>
Resources	<ul style="list-style-type: none"> • Skills & knowledge: Web administration and software development (for platform evolution). • Humans: <ul style="list-style-type: none"> ○ Internal: Web master. ○ External: Open source community willing to collaborate in the development of the platform. • Materials / infrastructures: Web server.
Costs	<ul style="list-style-type: none"> • Web server hosting. • Staff (in the future)
Revenue streams	<p>Association's internal resources. This activity is viable because the cost to maintain a web site is quite affordable, and the platform provides interfaces for its management.</p>

⁵ A description of the online platform, and guidelines on how to use it are available in Deliverable D2.1 Design and specs of the co-RRR web-based platform and D2.2 Co-RRR web based platform

6.3.4 Main channels

Association Web Site

Channel	Web site with information of the Association towards the general public.
Purpose	All activities will be reflected on the web site.
Cost	Maintenance of a web site and the community manager.
Rationale	This is the main presence of any organisation nowadays.

Social Networks

Channel	Dissemination of information and announcements of the Association towards the general public.
Purpose	Dissemination of events and special news.
Cost	Social networks subscription is free in general. There is the cost of paying a community manager to provide information in real time.
Rationale	All relevant organisations have a presence in social networks nowadays.

6.3.5 Main partnerships

Research groups institutions (sponsors)

Describe your partner and the partnership	Initially most of the members of the association will belong to academic research groups. Besides paying a membership fee, they will also contribute with their time and expertise, and providing some resources (e.g. meeting rooms).
Purpose & implementation	The initial activities of the association can be performed on a volunteer basis, as most academic researchers do. The members can request to their institutions to support the association with the use of some resources (e.g., meeting rooms, financial support to cover the costs of some events, etc.)
Cost	Meeting costs (travel and personnel costs)
Rationale	Initially the association will rely on the contributions of the partners, since this represent easily available resources, between organisations that trust each other.

GitHub community

Describe your partner and the partnership	GitHub is currently the largest open source community and provides support to create open source projects and collaboration of developers from anywhere in the world.
Purpose & implementation	The Co-RRI Platform will be delivered as open source as a GitHub project, so it is possible for GitHub developers to collaborate on its maintenance and evolution.
Cost	None.
Rationale	<p>The co-RRI platform was thought as an open source project, so it is the normal way to now make it accessible for the Github community.</p> <p>This can be also a way to support other CCs for using and adapting the platform to their needs.</p>

6.3.6 Viability

Economic balance

Costs	Revenue streams
Formalisation of the association in Spain - 37 euros (and 2 hours of time to register it)	<ul style="list-style-type: none">• Association's internal resources (membership fees, in-kind contributions and indirect costs' funding)• Funding from projects• Conference, tuition and consultancy fees
Sub-contracting for administrative management	
Materials (courses, catering, room renting)	
Web-server	
Staff (conference organisation, training preparation, administration, community manager, meetings, etc.)	
Experts of the conferences' programme committee	
Viability	
<p>The fixed costs for an association are quite low and can be afforded with low membership fees. This is regular in scientific associations and this one will follow similar parameters.</p> <p>Other activities are funded (in-kind contributions) by the association's members, and can provide an additional source of revenue for the association. With time, the purpose of the association is to hire specialised staff to facilitate the implementation of the different tasks and improve their quality.</p> <p>The fees for the course will be to cover the costs of experts and other resources that are required for implementing the courses and training activities. Also, some part of these fees will be a source of revenue for the association.</p>	

6.3.7 Assessment of the short-term activity model

Desirability:

- The association expands the RRI concept to a region (Latin-America) that has high potential of being interested on this paradigm in the next future. In this sense the association can be **a good link between Europe and Latin-America** to support the transition of their R&I system.

Feasibility:

- The association is being formed by members that already know each other, and that are willing to bring in resources (in-kind contributions, voluntary work, etc.).
- An association is a **light organisation** from an administrative point of view, requiring low financing.
- An association has **a great degree of flexibility** and can grow from few members and activities to more complex competences.
- The association **has already the competences** to develop the selected activities and this associative form facilitates collaboration among members.

Viability:

- The activities are developed as they are requested, so **the amount of running costs is low**. Furthermore, the activities do not require expensive material resources, and the main resource, that is expertise on co-RRI is already there.
- The **expected revenues** (conference, tuition fees, project funding, etc.) will largely cover the small running costs. Furthermore, in-kind (sponsors) contributions will diminish costs.

Effectiveness:

- The mission of the association is the promote changes in the R&I system to generate RRI initiatives in the Latin-American countries. The selected activities will make this mission a reality because:
 - Workshops and conferences on RRI will allow the concept to be **disseminated to a wider audience**, and as time goes, will allow sharing good practices between actors from the quadruple helix. Knowledge will be gained about RRI and **practices will change**.
 - Via its participation in research projects, the association will have the possibility to **influence projects' methodology to include co-RRI elements**, disseminating further the concept and practice of co-RRI to a wider audience and practitioners.
 - Training and consulting activities will contribute directly to increasing the knowledge and know-how on co-RRI, and will enable **new co-RRI projects**.
- The association is likely to last in time and will be a good way to pool resources for the activities, since it is based upon a **secured, long-term commitment** of the association's members to each other. It is to be noted that the members trust each other and are used to work together (on previous projects).
- This activity model is likely to scale-up because it is built around a concept of hubs, that pool resources and competencies, and can easily (since it mainly requires skills) be replicated. Replication is facilitated by the use of the online platform, and the other hubs, which share their experience and know-how on setting a hub. As time passes, **replication will increasingly be easier** since more and more hub's setting good practices will be available to newcomers. This follows a similar schema to the way of working of open source communities around projects.
- Continuous demonstration and communication of the value of RRI will be disseminated through different channels.

Efficiency:

- Thanks to the association's website, the online platform, and a combination of social media, there will be a continuous presence of the association on various channels, the association's offers and activities will touch an increasing number of people. These channels will be oriented towards the dissemination of the co-RRI concept and practices, which is a main goal of the mission. **Their cost is low and their range wide.**

- While there are few partners in the strict sense of the terms (members of the association are members, not so partners, since they pay a membership fee), **the model of federated hubs**, the open nature of the association, and its collaborative approach will allow for multiplying the sharing of knowledge, experiences and know-how, which will directly contribute to disseminating the co-RRI concept in the Ibero-American region.
- The upgrade of the platform on the Github community first allows **a free upgrade of the platform**, and second, will allow the platform to be further known.
- The online platform is an efficient way to organise and share knowledge on co-RRI, since it **centralises knowledge, while in the same time, allows for a distributed organisation** (experience from the implementation of activities will be recorded and shared through the Co-RRI platform (this functionality is already available) so that next activities can take advantage).

6.4 Details of the long-term activity model

6.4.1 Core activities

The short-term model's activities will be maintained, and a new one, "Fellowship Programmes" developed.

Fellowship Programmes

Description, purpose & output	The association will be able to offer support for individuals or non-profit organisations willing to develop RRI projects. They will be selected through an open call process. This will be further specified in the future.
Beneficiaries	Members of the association. Civil society. Individual researchers. Non-profit organisations.
Channels	Announcement of the open calls for fellowship will be done through the association web site, mailing lists and social networks.
Relationship	Funding fellowships.
Resources	<ul style="list-style-type: none"> • Skills & knowledge: RRI expertise. • Humans: <ul style="list-style-type: none"> ○ Internal: Association board to make the decisions on the fellowships. Fellows' trainers.
Partnerships	None.
Costs	<ul style="list-style-type: none"> • Association's staff • Costs to fund the selected projects (staff, materials, etc.). <p>As the selected projects will vary in size and scope, the costs will vary accordingly.</p>
Revenue streams	Internal resources and in-kind contributions from the members' organisations (sponsors)

6.4.2 Viability

Economic balance	
Costs	Revenue streams per cost
Research and experts staff	<p>Direct costs of successful R&I projects (participation in projects that are funded by National or International programmes)</p> <p>Direct revenues (conferences, training, consultancy, membership fees) and projects' indirect costs' funding</p>
<ul style="list-style-type: none"> • Fellowship programme • Materials & IT infrastructure • Experts of the conferences' programme committee • Administration 	<p>Direct revenues (conferences, training, consultancy, membership fees) and projects' indirect costs' funding</p>
Viability	
<p>The economic model remains the same: commercial revenues and project funding cover the association's costs and fellowship programme.</p> <p>In the long term it is expected to have regular sources of revenues as the different activities should be performed on a regular basis, allowing hiring the corresponding staff and supporting additional activities as a fellowship programme. This will allow to maintain low membership fees, which is regular in scientific associations.</p>	

6.4.3 Assessment of the long-term activity model

The assessment of the long-term activity model builds on the short-term model's assessment, with the following additions:

Desirability:

- The fellowship programme will **attract Co-RRRI initiatives** that have no easy access to funding.

Feasibility:

- An association is a light organisation from an administrative point of view, requiring a low financing. In the long term it can easily be **adapted to manage a more complex structure**.

Viability:

- Projects will allow for **long-term provisions**.
- The activities will be established, and **new specialised staff will be hired** to multiple the association's activities, allowing the association to reach **economic stability**

Effectiveness:

- The fellowship programme is well directed towards the mission since it will provide free support to co-RRRI initiatives, thus lowering the barriers towards the implementation of co-RRRI practices

Efficiency:

- A solid knowledge base will be built and assessed from the experience in the implementation of activities. This will allow for a **quality plan**, which will be developed by the staff and approved by the Direction of the Association, to continuously improve the activity model.

6.5 Path from the short-term to the long-term activity model

6.5.1 Actions for transforming the model

To get to the stable activity model, the main action is to hire staff.

Hiring staff	
Action description	One of the effects of the Association should be the ability by the association's direction to hire staff, who will facilitate greater provision of the services, and thus more revenues.
Resources	This will be achieved mainly through the participation on projects, which can assure regular funding for longer periods than the other activities.
Costs	The main cost is the personnel costs.

6.5.2 Process & feasibility

The association's members agreed to invite the association as a research partner in their projects, so it can be able to hire staff. This can be effective after one or two years, taking into account the time that it requires to prepare a proposal, being accepted and starting the project.

In the meantime, the Association will look for stabilisation of the memberships and activities, basically relying in those that are more viable such as conferences and training.

The main risk for hiring staff is the need for getting projects regularly. However, the expertise of the members and the network being in different countries, can contribute to create enough opportunities.

Other activities apart from those in this document will be conceived by the dynamics of the association.

Transformation: economic balance	
Costs	Covering costs
Increased number of staff	<ul style="list-style-type: none"> • Participation in projects that are funded by National or International programmes. • Direct revenues (conferences, training, consultancy, membership fees) and projects' indirect costs' funding
Development of the fellowship programme	

6.6 Conclusion

The association is built on the opportunity to implement RRI in a region that has not yet approached this paradigm but with high potential. The activities that are the most likely to make a change towards co-RRI are the **dissemination of the co-RRI concept and associated good practices through conferences, workshops, etc. the co-RRI courses, and the fellowship programme.**

The activity model of the association has several key features for success:

- The association already includes a good number of high-level members, which already have the required skills. In addition, that means that there is a **substantive pool of resources** that will drastically reduce the establishment costs. Furthermore, the resulting network to which the association has access is **wide, spanning different geographical areas**.
- It relies on **past experiences** of the association's members of research actions at Ibero-America level, such as collaborative projects and international conferences
- The evolution of the association will be smooth, growing from simple activities, such as dissemination through conferences and workshops, to more elaborated and focused such as training, consultancy and project development. In this way it can design a realistic path from the short-term model to a more ambitious long-term model. Other activities apart from those in this document will be conceived by the dynamics of the association.
- The **associative model is flexible and scalable**, organised in terms of co-RRI hubs, which collaborate in projects/activities and sharing resources. It is also open to the incorporation of new members and provide facilities to implement new co-RRI hubs.
- The **online platform** and website will also considerably ease the association's mission since it allows both for a centralised sharing of knowledge, and for a distributed management and spreading of federated hubs.
- The activity model is hybrid, meaning that commercial revenues cover the less profitable activities, which has the two advantages of, one, offering a running source of revenues, **diminishing the risk of bankruptcy, and second, diminishing the barriers of "entry" to co-RRI support**

The association is likely to get continuous interest thanks to the fellowship programme (free support to co-RRI projects) and the open access to the platform.

The main risk is to not win enough projects, which would limit the association's ability to hire permanent staff. However, that would not prevent the association from ensuring a minimum level of activities that would still have the benefits of spreading the co-RRI concept and its associated practices.

7 Sicilian competence cell (CESIE)

7.1 Mission

Context & problems addressed

CESIE's competence cell aims to meet the following challenges:

- In Italy R&I process partly addresses social needs and is often driven purely by economic benefits.
- Lack of comprehensiveness and inclusiveness of the local society in R&I activities:
 - In Sicilian contexts, citizens are eager to test social and open innovations so many bottom-up initiatives exist but they are often isolated and are not built on interconnections. Moreover, some of these initiatives have short-term effect, as there is no model which could guarantee their sustainability.
- The lack of solutions for SDGs and tailoring of practises at local, national, and international levels.

Vision

The CC shares CESIE's vision: The world is only one creature.

Accordingly, the cell will act as an umbrella, to protect bottom-up initiatives and connect them so as to increase their power and create positive impacts.

Mission

To meet the abovementioned challenges, the CC aims to:

- Contribute to the sustainable development of the region and local growth / positive change (in the social, economic & political spheres)
- To promote educational innovation, participation and growth based on the co-creation, openness, and inclusiveness.

The cell will apply a community-oriented approach to solve territorial challenges by R&I projects. It will help merge community and bottom-up initiatives, and create a transdisciplinary network of practitioners and pioneers to support the sustainability of local infrastructures and contribute to promote systemic changes in R&I system.

Thanks to the CC we will serve society on three levels: co-RRI community building, capacity building and awareness raising (creation of sustainability elements on the territory).

7.2 Overview of the activity models

7.2.1 Short-term activity model

The competence cell will be part of CESIE, an existing organisation with more than 15 years of experience in social activities involving different types of stakeholders. This strategy is aimed to overcome the challenges connected to the establishment of a new body (such as identifying an independent financing scheme, network, lobbying, etc.). Those difficulties can be solved by joining an existing organisation such as CESIE. The integration of the competence cell into CESIE will facilitate and speed up its launch and operations.

The competence cell will function as a sub-unit under the Higher Education and Research Unit (<http://cesie.org/higher-education-research/>) as a special group of knowledge actors at local level.

Its headquarters will be in Palermo, Italy, and the competence cell will function at local level, though being supported by local, national, and international members who have specific skills and experiences for diverse actions in R&I system.

The main objective of CESIE's competence cell will be to strengthen and promote a closer cooperation and co-creation practises between the quadruple helix actors at local level by initiating co-creation processes. The competence cell will deliver co-RRI projects based on a community-oriented approach and will spread these practises at national and international levels through targeted dissemination actions and by engaging different stakeholder.

The competence cell will function under the Higher Education and Research Unit. Its staff will volunteer so as to implement the CC's activities. Its members will create a strong network, along with internal and external working groups focused on specific fields of action (gender equality, migration, environmental issues, etc.). CESIE will provide the CC with all the resources needed for its functioning, i.e. staff, equipment, office. The Cell will contribute to the implementation of ongoing projects, the creation of new initiatives and the promotion of CESIE at local, national, and international levels.

Partnerships	Activities	Missions	Image	Beneficiaries
<p>Pioneers in social actions.</p> <p>Local communities "Living labs" and informal youth groups.</p> <p>Civil society organisations.</p> <p>Private sector, e.g.: SMEs in open innovation.</p> <p>Researchers from the traditional research & innovation system.</p> <p>Local policy makers.</p> <p>Other competence cells and EU networks.</p>	<p>Co-RRI community building:</p> <p>Skill & competence mapping</p> <p>Building a co-RRI community of actors from the quadruple helix</p> <p>Capacity building:</p> <p>Providing methodologies & tools based on local needs analysis</p> <p>Setting up Co-RRI projects.</p> <p>Facilitating co-creation process.</p> <p>Consultations of interested groups in development of co-RRI</p>	<p>Becoming an umbrella organisation for local initiatives, targeting sustainability goals by:</p> <p>offering targeted & tailored services based on stakeholder needs.</p> <p>fostering co-creation & integration between different cultures</p> <p>promoting the creation of new working groups for co-RRI actions.</p>	<p>Connector between R&I actors and local community.</p> <p>Initiator of transdisciplinary working groups.</p> <p>Network manager.</p> <p>Service-provider</p> <p>Promoter of co-creation and integration between different cultures</p>	<p>Civil society.</p> <p>Local community.</p> <p>Private sector.</p> <p>co-RRI interest groups (scientific, administrative, managerial).</p> <p>Researchers.</p> <p>Local Policy makers.</p>

	<p>projects, mapping stakeholders, etc.</p> <p>Communication & dissemination</p> <p>Promoting CO-RRI, competence cell at various level</p> <p>Disseminating EU sustainable development & policy agenda</p> <p>Participating in debates on/creation of R&I policy</p> <p>Organising Networking events of CO-RRI & research funding schemes</p>			
	<p>Resources</p> <p>Skills & knowledge: Knowledge of local context and needs, local actors' knowledge of existing infrastructures, conferences/seminars, networking-skills, communication skills.</p> <p>Human resource: field experts / local experts / researchers in RRI: CESIE's staff and volunteers</p> <p>Meeting/working places, co-working spaces.</p>	<p>Pain points addressed</p> <p>Lack of opportunities to take part in R&I</p> <p>Research without considering or analysing the needs communities, may have.</p> <p>Lack of access to the results and information</p> <p>R&I system is not flexible and cannot develop new visions and methods by itself.</p> <p>Lack of network / place to coordinate on local area.</p>	<p>Channels</p> <p>Online channels: Website. Social media presence Online platform. Newsletters. Networking Organisation of Information events/ Training/ Networking events. Community Info meetings concerning global challenges. Field visits.</p>	
<p>Costs structure</p> <p>Salaries</p> <p>Office renting and utilities</p> <p>Travels</p> <p>Materials and equipment (training, ICT, rooms, ...)</p> <p>Rewarding & Compensation strategies</p>		<p>Revenue streams</p> <p>CESIE Executive Committee membership fees</p> <p>Project- funding (locally, nationally, internationally)</p> <p>Donations</p> <p>Contributions of the State, of private/public institutions and bodies</p> <p>Contributions of promoting organisations</p> <p>CESIE's contribution</p>		

Figure 30: Sicilian short-term activity model canvas

7.2.1 Long-term activity model

The long-term activity model will be based on the short-term activity model, so as to adapt its main characteristics to local barriers (regional governance fragmentation, bureaucracy, cultural limitations, and organisational restrictions).

Partnerships	Activities	Missions	Image	Targets & beneficiaries
<p>Pioneers in social actions.</p> <p>Local communities “Living labs” and informal youth groups.</p> <p>CSOs</p> <p>Private sector, for example: SMEs in open innovation.</p> <p>Researchers from the traditional R&I system</p> <p>Local policy makers.</p> <p>Other competence cells and EU networks.</p>	<p>Co-RRI community expansion:</p> <p>Ongoing Skill & competence mapping among various knowledge actors</p> <p>Strengthening co-RRI community of actors from the quadruple helix</p> <p>Capacity building:</p> <p>Providing methodologies & tools based on local needs analysis that support stakeholders within & outside the research arena, setting up Co-RRI projects / facilitating co-creation process</p> <p>Consultations of interested groups in development of co-RRI projects, mapping stakeholders, etc.</p> <p>Communication & dissemination</p>	<p>To offer targeted & tailored services based on stakeholder needs.</p> <p>To foster co-creation & integration between different cultures (institutional, organisational, structural, political, etc.).</p> <p>To promote the creation of new working groups (scientific, administrative, & managerial) for co-RRI actions.</p>	<p>Knowledge and experience bank</p> <p>Connector between R&I actors and local community.</p> <p>Initiator of transdisciplinary working groups.</p> <p>Networker.</p> <p>Service-provider.</p> <p>Promoter of co-creation and integration between different cultures (institutional, organisational, structural, political, etc.).</p>	<p>Civil society</p> <p>Local community</p> <p>Private sector at the local community</p> <p>Co-RRI interest groups (scientific, administrative, managerial)</p> <p>Researchers</p> <p>Local Policy makers</p>
	<p>Resources</p> <p>Skills & knowledge: Knowledge of local context and needs, local actors’ knowledge of existing infrastructures, conferences/seminars,</p>	<p>Pain points addressed</p> <p>Replicating the CC in other regions.</p> <p>Lack of opportunities for the community to take part in R&I</p> <p>R&I actors often conduct research without considering or analysing the needs</p>	<p>Channels</p> <p>Online channels:</p> <p>Website.</p> <p>Social media presence (e.g.</p>	

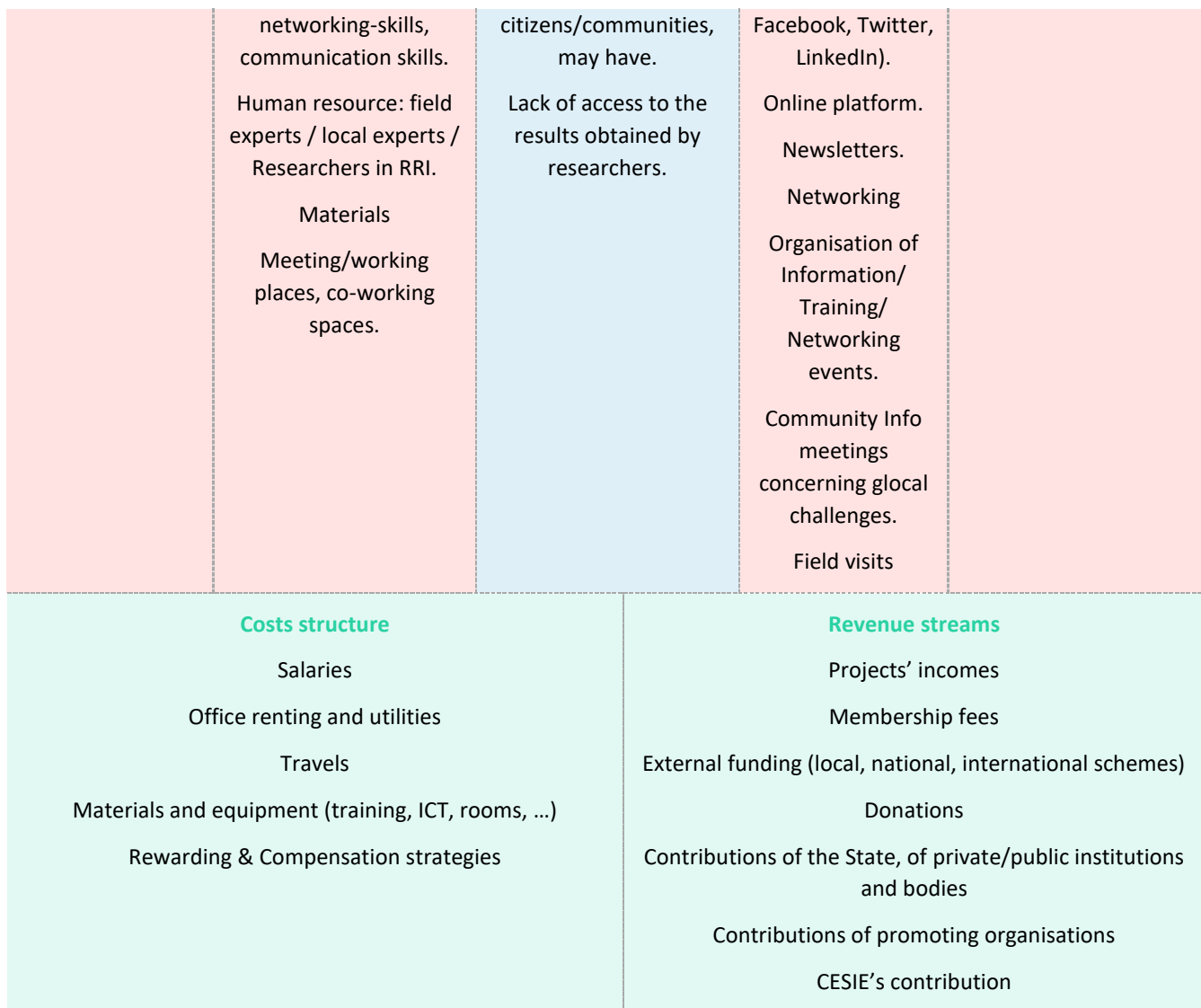


Figure 31: Sicilian long-term activity model canvas

7.3 Details of the activity model

Note: information about the long-term activity model is similar to the short-term model. The Information that covers both short-term and long-term model is presented in the tables below.

7.3.1 Core activities

co-RRRI community building	
Description, purpose & output	<p>These activities serve to promote the CO-RRRI concept and competence cell at a local and national level:</p> <ul style="list-style-type: none"> • Skill & competence mapping among various knowledge actors in a specific domain to facilitate the exchange of knowledge. • Building a co-RRRI community through face-to-face & online actions, managing the contact database.
Beneficiaries	<p>The beneficiaries are actors (see figure 3, 4) playing a significant role in local communities, who will benefit from a wider range of contacts, as they will be provided with support (cooperation) for their initiatives. Moreover, their actions will gain visibility and reach other beneficiaries and targets.</p>
Targets	<p>The targets are actors of quadruple helix (R&I organisations, business organisations, citizens, policy makers).</p>
Channels	<p>Online channels:</p> <ul style="list-style-type: none"> • Website. • Social media presence (e.g. Facebook, Twitter, LinkedIn). • Newsletters. <p>Face to Face channels:</p> <ul style="list-style-type: none"> • Networking, e.g. participation in conferences/ seminars. • Organisation of information/ networking events. • Community Info meetings concerning global challenges. • Field visits.
Relationship	<p>Based on: bottom up approach, inclusiveness, openness, acknowledgment, mutual exchange, co-creation, reward system and valorisation.</p>
Resources	<ul style="list-style-type: none"> • Skills & knowledge: Knowledge of local context and needs, local actors' knowledge of existing infrastructures, conferences/seminars, networking skills, communication skills. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): CESIE's volunteers will map knowledge actors at the local level, engaged in activities promoted by the CC ○ External (partnership): external people interested in the issues the CC deals with, stakeholders from different sectors. • Materials / infrastructures: information material about the CC, stationary materials, venues of conferences, etc.

Partnerships	Partnerships with actors interested in the target region: associations, SMEs, academia focused on sustainable development & responsible innovation, in particular. With their help initiatives will be implemented
Costs	<ul style="list-style-type: none"> • Travel and accommodation expenses, food, staff costs for the activities occurring outside CESIE's premises. • Facilitation of co-creation activities.
Revenue streams	<p>The activities of the CC will not be profit oriented in the beginning, as they are aimed at creating strong connections within and for society.</p> <p>Costs will be covered by CESIE as the CC is part of this established organisation by indirect incomes (such as donations), however services can have a price (e.g., we may discuss monetary and non-monetary rewards with the R&I organisations interested in our services. As for the non-monetary reward system we could allow other organisation to use of R&I infrastructure in further activities.)</p>

Capacity building

Description, purpose & output	Capacity building efforts targeted at local actors, CC collaborators and stakeholders will be based on a needs analysis carried out at local level. The aim is to provide (create) methodologies and tools within and outside the research arena, to build certain skills, to set up co-RRRI projects and facilitate co-creation process.
Beneficiaries	The beneficiaries are actors (see figure 3, 4) playing a significant role in local communities.
Targets	The targets are actors of quadruple helix (R&I organisations, business organisations, citizens, policy makers).
Channels	<p>Online channels:</p> <ul style="list-style-type: none"> • Website. • Social media presence (e.g. Facebook, Twitter, LinkedIn). • Online platform. • Newsletters. <p>Face to Face channels:</p> <ul style="list-style-type: none"> • Networking, e.g. participation in conferences/ seminars. • Organisation of Information/ Training/ Networking events. • Community Info meetings concerning glocal challenges. • Field visits. • Consultations of interested groups in development of co-RRRI projects, mapping stakeholders, etc.
Relationship	<p>Based on:</p> <ul style="list-style-type: none"> • Bottom up approach, inclusiveness, openness, acknowledgment, mutual exchange, co-creation, reward and valorisation, knowledge exchange, win-win approach.

Resources	<ul style="list-style-type: none"> • Skills & knowledge: Knowledge of local context, local actors' knowledge of existing infrastructures, networking skills, communication skills, training skills, collaboration skills, knowledge of dissemination activities, promotional strategies, and graphic design. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): Staff members to organise and implement activities promoted by the CC. ○ External (partnership): external people interested in the issues the CC deals with, stakeholders from different sectors. • Materials / infrastructures: information material about the CC, training materials, stationary materials, training room, video projector, computers, other multimedia materials, etc.
Partnerships	<p>Partnerships with actors interested in the target region: associations, SMEs, academia focused on sustainable development & responsible innovation, in particular.</p> <p>Partners from national networks, RRI communities in EU countries.</p>
Costs	<ul style="list-style-type: none"> • Organisation and implementation of capacity building activities, such as material costs, printing costs, venue rent, coffee breaks, trainers' costs.
Revenue streams	<p>The activities of the CC will not be profit oriented in the beginning, as they are aimed at creating strong connections within and for society. The CC will be supported by CESIE and by indirect incomes (such as donations), however services can have a price (e.g., we may discuss monetary and non-monetary rewards with the R&I organisations interested in our services. As for the non-monetary reward system we could allow other organisation to use of R&I infrastructure in further activities.)</p>

Communication

Description, purpose & output	<p>The communication activities aim to promote the work and the actions supported by the CC and involve potential actors at the local level in order to expand the local network in CO-RRI:</p> <ul style="list-style-type: none"> • Promoting the CO-RRI, competence cell at local, national, & international level • Disseminating EU sustainable development policy & agenda • Participating in debates on/creating R&I policy • Organising Information/Training/Networking events concerning CO-RRI & research funding schemes • Disseminating & exploiting research projects' results, creating synergies between similar initiatives & capitalising results.
Beneficiaries	<p>The beneficiaries are actors (see figure 3, 4) playing a significant role in local communities.</p>
Targets	<p>The targets are actors of quadruple helix (R&I organisations, business organisations, citizens, policy makers), who work in R&I and develop policy making actions.</p>
Channels	<p>Online channels:</p> <ul style="list-style-type: none"> • Website. • Social media presence (e.g. Facebook, Twitter, LinkedIn). • Online platform.

	<ul style="list-style-type: none"> • Newsletters. <p>Face to Face channels:</p> <ul style="list-style-type: none"> • Networking, e.g. participation in conferences/ seminars. • Organisation of Information/ Training/ Networking events. • Community Info meetings concerning glocal challenges. • Field visits.
Relationship	<p>Based on: inclusiveness, openness, acknowledgment, communication campaign, marketing strategy, promotion at different levels.</p>
Resources	<ul style="list-style-type: none"> • Skills & knowledge: Knowledge of local context and needs, local actors' knowledge of existing infrastructures, conferences/seminars, networking-skills, communication skills, training skills, collaboration skills. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): staff members who will organise and implement activities promoted by the CC, dissemination activities, in particular. ○ External (partnership): external people interested in the issues the CC deals with, stakeholders from different sectors • Materials / infrastructures: information material about the CC, training materials, stationary materials, training room, video projector, computers, other multimedia materials, etc. • Financial: travel and accommodation expenses, food for events/activities of the CC and participation in relevant events organised by external partners.
Partnerships	<p>Partnerships with actors interested in the target region: associations, SMEs, academia, media channels, policy makers interested in sustainable development & responsible innovation</p>
Costs	<ul style="list-style-type: none"> • Organisation and implementation of dissemination activities, such as material costs, printing costs, staff costs.
Revenue streams	<p>The core organisation of the CC – CESIE - funds these activities. In a short-term perspective, the CC will promote co-creation initiatives, so it will be challenging to make it commercially viable. In the meantime, project-based actions and the contributions of stakeholders will support its initiatives. In a long-term perspective, the CC will produce incomes by getting paid for its services. Therefore, it will be possible to cover CC's staff and operating costs.</p>

7.3.2 Support activities

Management

Description, Purpose	The management will support CC's concept: organising resources, planning activities, monitoring, implementing quality control procedures.
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: managerial and leadership skills, knowledge of local and EU R&I system and trends. Specific knowledge of the topic, teamwork skills, adaptability, flexibility, people with knowledge of local networks and who are part of them. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): people with knowledge of transdisciplinary research, community building methodologies, with local contacts, good communication skills, project development skills. ○ External (partnership): external people interested in the issues the CC deals with, stakeholders from different sectors, partnership with CESIE Units and support offices (coordinators, project managers, administration). • Materials / infrastructures: information about CC for external stakeholders, strategies created for short and long-term period, KPIs, working place, equipment necessary for the implementation of tasks (PCs, internet connection, phones, etc.)
Costs	<ul style="list-style-type: none"> • Operating costs (travel and accommodation expenses, food for events/activities of the CC and participation in relevant events organised by external partners, in a long-term perspective – funds for CC staff salaries). • monetary reward system, • equipment.
Revenue streams	Costs will be covered by CESIE as the CC is part of this established organisation. In a long-term perspective, the CC will be provided with funds resulting from co-created projects which will be used to cover staff and visibility costs.

Administration

Description, Purpose	Planning and coordinating administrative procedures and systems for the CC.
Resources & partnerships	<p>Skills & knowledge: financial and human resources management, project development, networking. Good communication skills in two languages, knowledge of design for behaviour change, project management skills, budgeting and HR trends, excellent interpersonal skills, etc.</p> <ul style="list-style-type: none"> • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): personnel ○ Partnership with CESIE Units and support offices (coordinators, project managers, administration) • Materials / infrastructures: working space, PC, phone, budgeting programmes, working tools (paper, pens, etc.)
Costs	<ul style="list-style-type: none"> • Administration of the CC and co-creation activities; office expenses, time invested, workplace management, working tools (PC, paper, pens, etc.)

Revenue streams	Costs will be covered by CESIE as the CC is part of this established organisation. In a long-term perspective, the CC will be provided with funds resulting from co-created projects which will be used to cover staff and operating costs.
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Visibility and Communication

Description, Purpose	Disseminating and supporting ongoing activities at local, national and EU levels.
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: good oral and written communication skills, ability to use different tools for visibility, big data management skills, access to different networks, online visibility tools. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): communication and ICT specialists. Partnership with Visibility office, local / national / EU media, visibility office of policy makers/R&I organisations. • Materials / infrastructures: working space, PC, phone, budget for visibility programme, working tools (camera, paper, pens, etc.)
Costs	<ul style="list-style-type: none"> • Working space and working tools (PCs, paper, pens, video camera, internet etc.) • Travel and accommodation expenses, food, staff costs for the activities occurring outside CESIE's premises. • Costs of marketing activities. • Costs of meetings with external stakeholders, etc. • Publication fees (in news, newspapers, radio, etc.)
Revenue streams	Costs will be covered by CESIE as the CC is part of this established organisation. In a long-term perspective, the CC will be provided with funds resulting from co-created projects which will be used to cover staff and visibility costs.

Networking

Description, Purpose	Supporting new relationships among the CC and local, national, EU knowledge actors and groups of stakeholders.
Resources & partnerships	<ul style="list-style-type: none"> • Skills & knowledge: good oral and written communication skills, ability to use networking tools, different networks, and online visibility tools. • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): communication and ICT specialists. ○ External: partnerships with local, national and EU knowledge actors. • Materials / infrastructures: working space, PC, phone, budget for visibility programme, working tools (camera, paper, pens, etc.) • Financial: costs related to the implementation of communication strategies • Partnerships: local and EU networks, EU competence cells, Living Labs, etc.
Costs	<ul style="list-style-type: none"> • Working space, working tools (PC, paper, pens, video camera, internet etc.) • Travel and accommodation expenses, food, staff costs for the activities occurring outside CESIE's premises • Costs of meetings with external stakeholders, etc. • Fees for participation in networks.

Revenue streams

Costs will be covered by CESIE as the CC is part of this established organisation. In a long-term perspective, the CC will be provided with funds resulting from co-created projects which will be used to cover staff and visibility costs.

7.3.3 Channels

Online channels (Website, Social media, Online platform, Newsletters, etc.)

Channel

Online channels (website, social media, platforms, etc.) will be used for awareness raising campaigns concerning the CC and SGDs for a wider audience including researchers, policy makers, local administrators, organisations, and the community.

Purpose

The tools will be used for: 1) disseminating the activities, 2) promoting the CC, 3) advertising meetings and debates, 4) publishing materials such as toolbox/manuals.

Cost

Expenses related to website design and maintenance, registration fees to certain networks, online publication fees, etc.

Rationale

These channels ensure that the CC has a wide visibility and allow potential stakeholders to contact it. Moreover, in this way it would be possible to reach a wider audience and create sustainability elements (visibility, exploitation of results, awareness rising campaigns, impact on organisation/group of people, etc.).

Face to Face channels (Networking, e.g. participation in conferences/ seminars, Organisation of Information/ Training/ Networking events, Community Info meetings concerning glocal challenges, etc.)

Channel

In order to guarantee long-term cooperation, face to face channels will be used to reach researchers, policy makers, local administrators, organisations and the community, as a whole.

Purpose

Face to face channels will allow for a direct connection with external stakeholders and knowledge actors, so as to discuss sustainability issues, strengthen co-creation processes, involve them in co-creation activities, share experiences, etc.

Cost

- Registration fees to conferences / events, workshop planning expenses, publishing costs, travel and accommodation costs, representation expenses, etc.

Rationale

These channels give wide visibility to the CC and allow potential stakeholder to become involved in CC's activities at different levels, be involved in CC activities. Moreover, they provide the CC with the opportunity to reach a wider audience and create sustainability elements and closer connection.

7.3.4 Partnerships

R&I organisations

Describe your partner and the partnership	Sicilian, Italian, EU private and public Higher Education Institutions based in Italy, EU and non-EU countries will be involved in the CC activities through the implementation of common projects, development of project proposals, participation in co-creation processes, etc.
Purpose & implementation	Those partners will participate in co-creation activities as R&I experts. They are expected to contribute with their scientific knowledge to discussions and exchanges. The CC will encourage them to cooperate with external actors and share R&I results.
Cost	Travel and accommodation expenses for Face-to-Face meetings.
Rationale	These partners are important as they can promote changes in R&I systems and support policy making for co-RRI.

Local and EU actors (pioneers, local communities, SMEs, etc.)

Describe your partner and the partnership	Local partners, such as ARCA, Madonie Living Lab and several small and medium organisations working on the sustainable development of the territory. The CC can also count on EU networks, such as ERRIN. The local CC has already strong relationships with them due to the implementation of common activities in the past.
Purpose & implementation	Such partnerships contribute to the CC with: local knowledge, local contacts, implementation of local initiatives, changes at local level, adaptation of EU practices, reflection about national and EU regulations in R&I systems, etc.
Cost	Travel and accommodation expenses for F2F meetings.
Rationale	Local partners, such as ARCA, Madonie Living Lab and others, are active at local level, they have access to contacts necessary to activate co-creation processes and support the sustainable development of the territory. Thus, they can help the CC implement its mission and vision.

Other competence cells

Describe your partner and the partnership	FoTERRIS competence cells and similar initiatives in EU.
Purpose & implementation	The partners contribute to local co-creation initiatives by using their advanced knowledge, following the implementation of similar activities. They share experiences and knowledge gained in the field of RRI.
Cost	Travel and accommodation expenses for Face to Face meetings.
Rationale	Such partners support the changes in R&I system with their know-how and experience. Their feedback provides a better understanding of CC's role.

7.3.5 Viability

Economic balance	
Costs	Revenue streams per cost
Managerial salaries Staff salaries (for long-term activity model)	Project incomes / incomes from consulting services
Rent of building	CESIE's contribution ⁶
Rates and utilities (heating, lighting)	CESIE's contribution
Business trips	CESIE's contribution, project incomes / incomes from consulting services (we expect to develop this activity), external funding (local, national and international funding schemes), donations, government funds, contribution from private/public institutions and bodies, contributions of promoting organisations.
Office Expenses	CESIE's contribution
Incentive payments	CESIE's contribution, project incomes / incomes from consulting services
Equipment	CESIE's contribution, project incomes / incomes from consulting services
Viability	
<p>CESIE has prepared a strategy, to avoid the risks arising from setting up a new sub-unit. According to this strategy, internal staff members and resources will be used to operate the competence cell. In a short-term period, the Cell will be solely supported by CESIE, afterwards the sub-unit will partially cover its operating costs itself. It will make use of CESIE premises, equipment, office tools, and so on. However, it should be able to generate its own resources resulting from local, national and EU co-creation initiatives, so that it would become viable and resilient.</p>	

7.3.6 Scaling-up

The activity model for the long-term is similar to the short-term, with regards to the activities carried-out. However, the main change will happen at an operational level. In five years the CC will employ staff for the implementation of its activities based on budget resulting from co-RRI activities and revenue streams. The main objective will be to keep promoting a closer cooperation and co-creation practises between the knowledge actors at local and national levels by, delivering co-RRI projects and monitoring primary results of the initiatives which have already developed by the cell.

⁶ In addition to in-kind contribution, CESIE's executive committee members will pay a fee that will cover part of the cell's costs.

7.3.7 Assessment of the activity model

Desirability:

As our transition experiment and interviews with local actors show, the CC is necessary as it will create a stronger local network which could support, manage, capitalise, and strengthen local R&I initiatives, bringing openness to R&I processes and access to R&I results.

Feasibility

The test of the CC has been implemented in the framework of FoTERRIS project and our model shows that starting a local change is not an expensive process, especially if such cell appears in an existing structure (with its own tools, equipment, knowledge, connections, etc.). The activity model will be implemented using CESIE's resources, with external partners giving their contribution, if necessary. These conditions proved to be very helpful at the beginning, as they support growth and proactivity in the local area.

Furthermore, the decision – making processes will involve all main actors of CESIE in communication (for example: creation of partnerships), management (for example: reallocation of resources), administration (for example: organisation of activities) and monitoring activities of the CC. This will allow to identify needs and risks and create mitigation strategies.

Effectiveness

The cell's mission is to become an umbrella for community initiatives that aim at solving through R&I local sustainability related challenges. By building a bigger community of such initiatives, by developing the local competencies towards co-RRI and by continuously communicating about the benefits of co-RRI, the mission will be reached.

A wide range of local and EU partners will be involved in a cooperation network. The network will facilitate the exchange of information and knowledge, as stakeholders will be invited to take part in co-creation activities. This network already exists since CESIE is well-established in the local communities and have partnerships with local actors (ARCA, Madonie Living Lab...).

Efficiency

To optimise the activity model, only active partnerships will be invited to jointly implement the activities with us. Different channels support such cooperation and have been used by CESIE for more than 10 years. Thanks to them, we have a direct access to a contact lists of beneficiaries and we can create new engagement strategies. To organise such work, it is important to have financial stability, for this reason part of the costs will be covered by CESIE at the beginning. The CC structure will be open for donations, exchange of services and will be supported by the work of volunteers.

7.4 Conclusion

The Sicilian competence cell aims to become an umbrella organisation for local initiatives, targeting sustainability goals. Considering different organisational, economic, social, and political obstacles at a regional level, local R&I organisations, SMEs, CSOs, etc. require a leading organisation, which can initiate and manage changes. Using internal CESIE's resources, the competence cell will promote community and bottom-up initiatives growth and will adapt good EU practices in our area. Nowadays, different funding programmes increasingly require co-creation approaches, therefore the competence cell's experience will be needed as it contributes to create long-term visions. However, knowing that it could be challenging to involve local actors in systematic and long-term activities due to a limited amount of time and organisational barriers, at the beginning the competence cell will not be established as a separate organisation, as CESIE's 'baggage' will help to avoid different risks and support a new sub-unit in local and EU cooperation.

8 Deliverable's conclusion

8.1 *An overview of future cooperation relationships between the cells*

All five competence cells consider that exchanges and cooperation among themselves could be beneficial for the future of their own cells. So, they will continue to collaborate, in an informal way, especially through the FoTERRIS web-based platform. They will exchange knowledge and about their further development and functioning and might meet on a yearly basis at the Annual Conference on Critical Issues and Science, Technology and Society Studies organized by IFZ. Eventually, they will pool their network contacts, provide each other with materials and resources, and elaborate joint projects and publications.

8.2 *Concluding thoughts*

This deliverable shows that competence cells share communalities. For instance, all competence cells have a group of experts that organise activities or services to a targeted group of the population.

On the other hand, due to the local context and circumstance in which they were created, they also differ from each other. The Hungarian competence cell corresponds to the existing organisation ESSRG, while UCM has created an Ibero-American independent association. These differences are a result of adapting their mandate and activities to the concrete context in which they have been created. Such adaptation is key and will make them resilient.

All competence cells have strengths. The Transition Experiment workshops confirmed that competence cells respond to an existing demand. Furthermore, all activity models are feasible, well-grounded in their context, embody a realistic mission and the cells have access to most of their needed resources, missing ones will be provided by partners for long trusted.

To address the remaining challenges and uncertainties, we make some recommendations. Firstly, a roadmap could be established, as well as a light monitoring system, to ensure delivery of their mission. The cells could consider diversifying their revenue sources by raising funds through crowdfunding, philanthropy, etc. It is advised to strengthen communication and networking among the existing cells, and the future ones (especially in the Ibero-American and Flemish case). Competence cells are encouraged to build upon each other's successes, if adaptable in their context. Lastly, they could take a role of coordinating and matchmaking between co-RRI like initiatives and organisations, for what misses most is a critical mass of stakeholders engaged for co-RRI.

It is important to keep in mind that the competence cells cannot foster the transition on their own. Policy makers and decision makers should support them, especially by working collaboratively with them (without compromising the cells' autonomy) and easing their access to resources. They could take their successful outcomes as bases to institutionalise the concept of competence cells further and help the spreading of more and more of these promising organisations.

9 Bibliography

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Annexes

1. Annex 1 – Preliminary activity model questionnaire

WP2: Design of multi – actor experiment

Questionnaire to competence cells members with regards to the organisation and business model of competence cells.

Reminder:

- **Transition arenas** are groups of people interested in co-solving a global challenge.
- **The competence cell will comprise** trained researchers in co-RRR methodologies who will share their know-how with transition arena members.

1. Can you describe how you have ‘organised’ your competence cell in the frame of the FoTERRIS project:

- a. Who is working as a member of your competence cell? Did you have to recruit new people than initially planned (even internally to your organisation)? (if yes, please describe the recruitment process)
- b. Can you describe briefly all the actions you have carried during the transition experiment (all the workshops), including preparation of the transition experiment, running it, ending it and assessing it.
- c. How much time does it take you to manage this competence cell, including the time for the transition experiment and any other related activities (time for searching potential partnerships, funding for after the FoTERRIS project, media coverage of the transition experiment, etc.)?
- d. Can you describe the relations you have with the workshops’ participants?
 - i. Why these participants are interested to share their knowledge?
 - ii. What benefits (financial/ non-financial) the participants can get from such collaboration?
 - iii. Describe how do you remunerate (money) the participants of the workshops.
 - iv. Describe how do you compensate (give something different than money) the participants of the workshops.
 - v. Describe how do you valorise (peer-to peer rating? Other?) the participants of the workshops.
 - vi. Why have you chosen these strategies?
 - vii. If you do not remunerate/compensate/valorise, please explain why.
In this case, how do you ensure participation in the workshops?
 - viii. Do have you any feedbacks on these from the participants?
 - ix. Is what you currently do sufficient to maintain your participants’ engagement?
Do you think these strategies can be replicable in the future, after the FoTERRIS project? Why yes or no?
What is your know-how? Do you have a remuneration strategy?
- e. Have you collaborated with any other organisation with the aim to strengthen your network?
- f. Are the FoTERRIS financial resources sufficient to cover your costs when working as a member of the competence cell?

- g. How are you supported by your current organisation for being in a competence cell and running the transition experiment?
- h. Can you assess your overall competence cell experience (including the experience of the others working in the cell): what is easy/difficult, what works well, doesn't etc.? (main challenges, barriers, opportunities)

2. How are you willing to ensure the continuity of your competence cell after the FoTERRIS project?

3. If yes, how had you envisaged ensuring the sustainability of this cell in the medium-term?

- a. In terms of legal structure
- b. In terms of core activities
- c. In terms of resources (staff, money (revenues, funding, philanthropy), space, time)
- d. In terms of elements for rewarding your staff and participants
- e. In terms of partnerships
- f. Will the competence cell be hosted by the organisation you are currently in or will you aim at continuing your activity in the competence cell independently than this organisation?
- g. Overall, can you describe in a few lines your envisioned business model/strategy for ensuring the sustainability of the competence cell once the FoTERRIS project is over?
- h. What would be the main challenges to launch and maintain your competence cell once FoTERRIS is over?

4. We would like to ask you to read Nele's outline of D2.3 'Mandate and Structure of the competence cells' in particular the mandates 5 broad themes (knowledge transmission and learning in context about Co-RRI/Image building/scaling up co-RRI (inter)nationally/connecting people in function in co-RRI projects/advocacy for co-RRI at local, regional, EU level)

- a. Is your vision aligned with the one presented in the document? Can you explain?
- b. Do you think your idea of business model/strategy for your future competence cell (if any) will allow you to cover all activities covered by these 5 broad mandates?

**5. Could you describe what is YOUR vision of a network of competence cells?
If you do not have such a vision can you explain why?**

2. Annex 2 – Activity models final template

Guidelines to report on your activity models

This part of the deliverable is where you'll report on your activity models (short-term and long-term). It will include a section on how you'll transform your activity model, from the short-term one, to the long-term.

NB: short-term and long-term activity models

The short-term model refers to the situation directly after FoTERRIS. You have to report about the real future situation of your cell. The long-term model refers to the blue print of your future competence cell. You'll have to give the necessary information about your "ideal" (aspired situation) competence cell, given the inputs received during the TE, the outreach workshop, and the opportunities created by your home organisation.

**

The activity models, according to the DOA, serves for "ensuring the knowledge arenas' (aka competence cell) **sustainability over time**".

According to Osterwalder, a business model "is a conceptual tool that contains **a set of elements** and their **relationships** and allows expressing a company's **logic** of earning money. It is **a description of the value a company offers to one or several segments** of customers and the **architecture** of the firm and its network of partners for **creating, marketing and delivering this value** and relationship capital, in order to generate profitable and **sustainable revenue streams**".

As we have decided to replace business model by activity model, we have chosen the following definition of an activity model, to fit FoTERRIS' needs:

"An activity model is a conceptual tool that contains a set of elements and their relationships and allows expressing a competence cell's logic of being economically viable while fulfilling its mission. It is a description of the missions a cell embodies, to make change in the R&I landscape and foster a transition towards co-RRRI system. It is also a description of the architecture of the cell and its network of partners for creating, communicating and delivering activities' outputs, to fulfil the mission while being economically viable".

NB:

You might find that the template uses a "commercial approach", however, the template is only a structure to show the economic viability of your cell (which does not have to be based on profit-making, if your cell is economically viable thanks to internal funds, that is fine). It does not request you to use a commercial mindset to fill it. We believe that there is enough flexibility in this template for you to describe your cells, as unconventional they can be.

It is then composed as follow:

1. Overview of the competence cell's mission(s)
 - ➔ This part is needed to assess whether the activity model allows for fulfilling the mission(s) successfully.
2. Overview of the competence cell's activity models, for the short-term and long-term
 - ➔ This is to get, in a glance, what the activity models look like
3. Details of the short-term activity model and assessment
 - ➔ This is to present in detail:
 - The activities carried out by the cell. The “core” activities, which constitute the cell’s “raison d’être”, and the “supporting” activities, such as management, communication. Presenting these activities serve to assess whether the mission(s) can be fulfilled by these activities, and to detail the costs they incur.
 - The channels used by the cell.
 - The partnerships implemented.
 - The balance table, balancing all costs by the revenues, to assess whether the cell is viable.
 - ➔ All that being necessary to assess, in a proper way, the effectiveness and efficiency of the activity model.
4. Details of the long-term activity model and assessment
 - ➔ Almost same than 3, but for the long-term activity model
5. Presentation of the transforming process and assessment
 - ➔ This is to present:
 - The actions that have to be undertaken to transform the activity model
 - The costs they incur
 - ➔ And to assess whether this transformation process is feasible
6. Overall assessment and conclusion
 - ➔ The last part serves to justify why these activity models & transformation processes have been chosen, to assess what their potential weaknesses could be and propose mitigation actions to overcome the weaknesses and that could prevent any implementation problems

Explanations of key terms & guidelines:

- **Missions:** refer to what changes your competence cell is wanting to make in the R&I landscape. Clarify at which level these changes will happen. Frame your mission(s) in terms of desirable outputs / processes that are brought to the R&I landscape, to make it change and/or to benefit directly actors concerned by R&I.
- **Pain points addressed:** refer to current problems your missions aim to solve.
- **Image:** refer to how you want other actors, people perceive your cell (lobbyist, expert centre, facilitator, etc.)
- **Beneficiaries:** people that benefit from your missions/activities. For e.g.: if you help researchers to make co-RRRI proposals, then the researchers are your beneficiaries.
- **Targets:** people that are targeted by your missions/activities, but that do not benefit (in the positive sense) from these. For e.g. if you lobby, then your target is the policy-maker to which you lobby.

- **Channels:** Channels are means and infrastructures to reach your targets/beneficiaries and communicate about your cell's existence. For e.g. if you help researchers to make co-RRR proposals, then some of your channels could be a website to advertise your service.
- **Relationships:** Relationships describe the way you interact and maintain a relation with your beneficiaries and targets.
- **Activities:** Activities that are necessary to fulfil your mission(s). For e.g. if one of your missions is to increase co-RRR capabilities, then one of your activities can be "setting a Mooc on co-RRR", another can be "writing a book on co-RRR". Distinguish between *core activities*, that are directly related to your mission(s), and *supporting activities*, which support the cell's existence but do not contribute directly to the mission(s) (e.g. communication, management, etc.).
- **Resources:** all resources that are needed for implementing your activities.
- **Partnerships:** partnerships are relationships that you establish with other organisations/people, in order to (help your cell) create / deliver outputs with them / thanks to them.
- **Costs structure:** refer to all the costs incurred by running your cell, and how they are structured (timing)
- **Revenue streams:** usually used to design commercial revenues, here the revenue streams will also include funding & donations. Refer to what you get for sustaining your cell.

1 [Country name] competence cell

1.1 Mission

Context & problems addressed

Present

- the problems that your competence cell (CC) aims to target,
- their impacts,
- context & causes.

Vision

Present the R&I world that your CC promotes.

Mission

Describe briefly

- what mission(s) your CC will commit to. The mission(s) corresponds to changes the cell will be able to foster and/or implement. The mission(s) might change over time, if it is the case, present both short-term and long-term mission(s).
- Clarify whether you aim for a change at EU, or national level, or another level.
- Clarify the impact you expect to make, and how it contributes to your mission.

1.2 Overview of the activity models

1.2.1 Short-term activity model

- Describe briefly your competence cell for the short-term:
 - What legal entity will it be?
 - Where will the “headquarters” be? Geographical area of action?
 - Is it new or part of an existing organisation?
- Summarise briefly the short-term activity model:
 - What will be the main objective and main delivery?
 - How will it be viable?
- Detail how will the cell function (in terms of organisation, decision-making, power-relations, network, etc.) and which values (approaches/spirit) will frame its functioning?

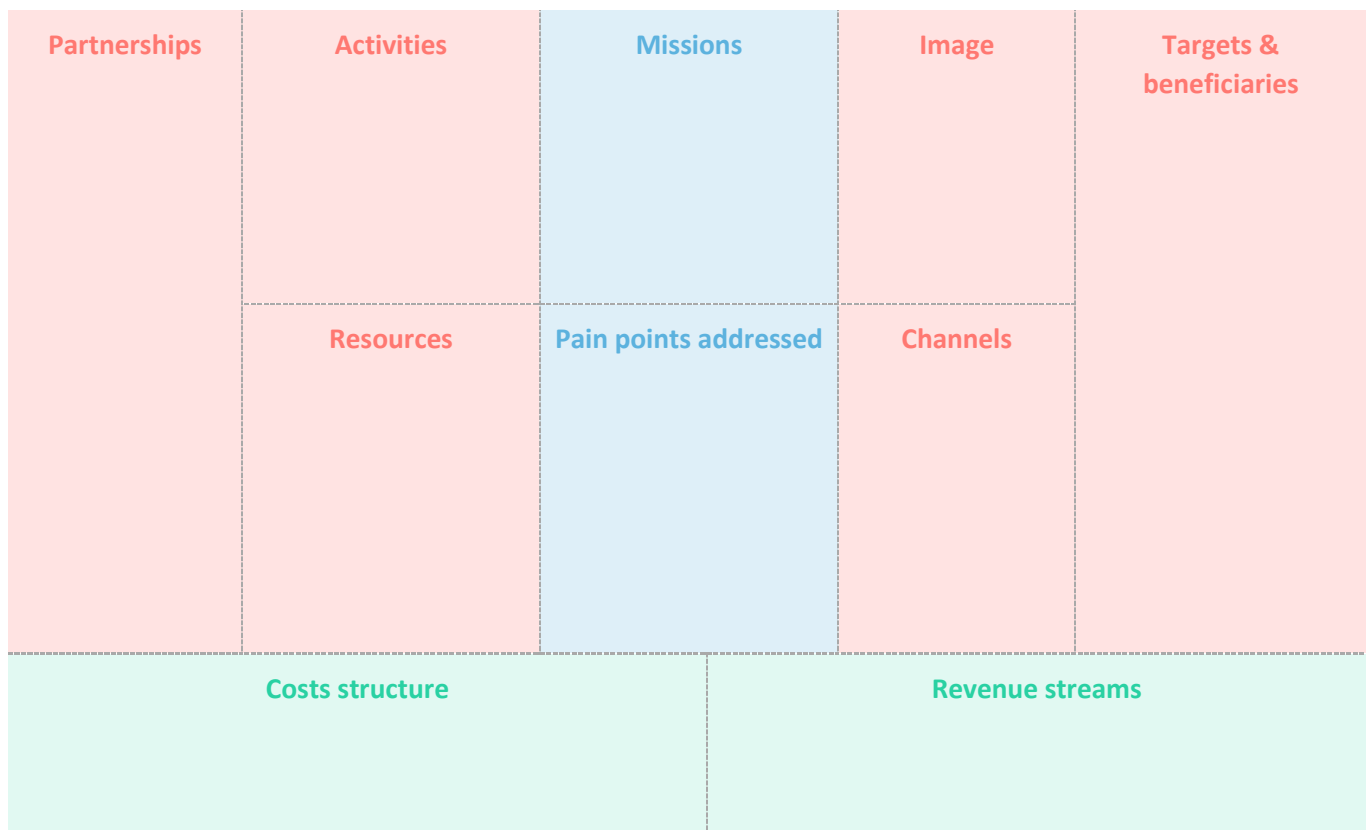


Figure 32: [Country] short-term activity model canvas

1.2.2 Long-term activity model

- Describe briefly your competence cell for the long-term:
 - What legal entity will it be?
 - Where will the “headquarters” be? Geographical area of action?
 - Is it new or part of an existing organisation?
- Summarise briefly the long-term activity model:
 - What will be the main objective and main delivery?
 - How will it be viable?
- Detail how will the cell function (in terms of organisation, decision-making, power-relations, network, etc.) and which values (approaches/spirit) will frame its functioning?

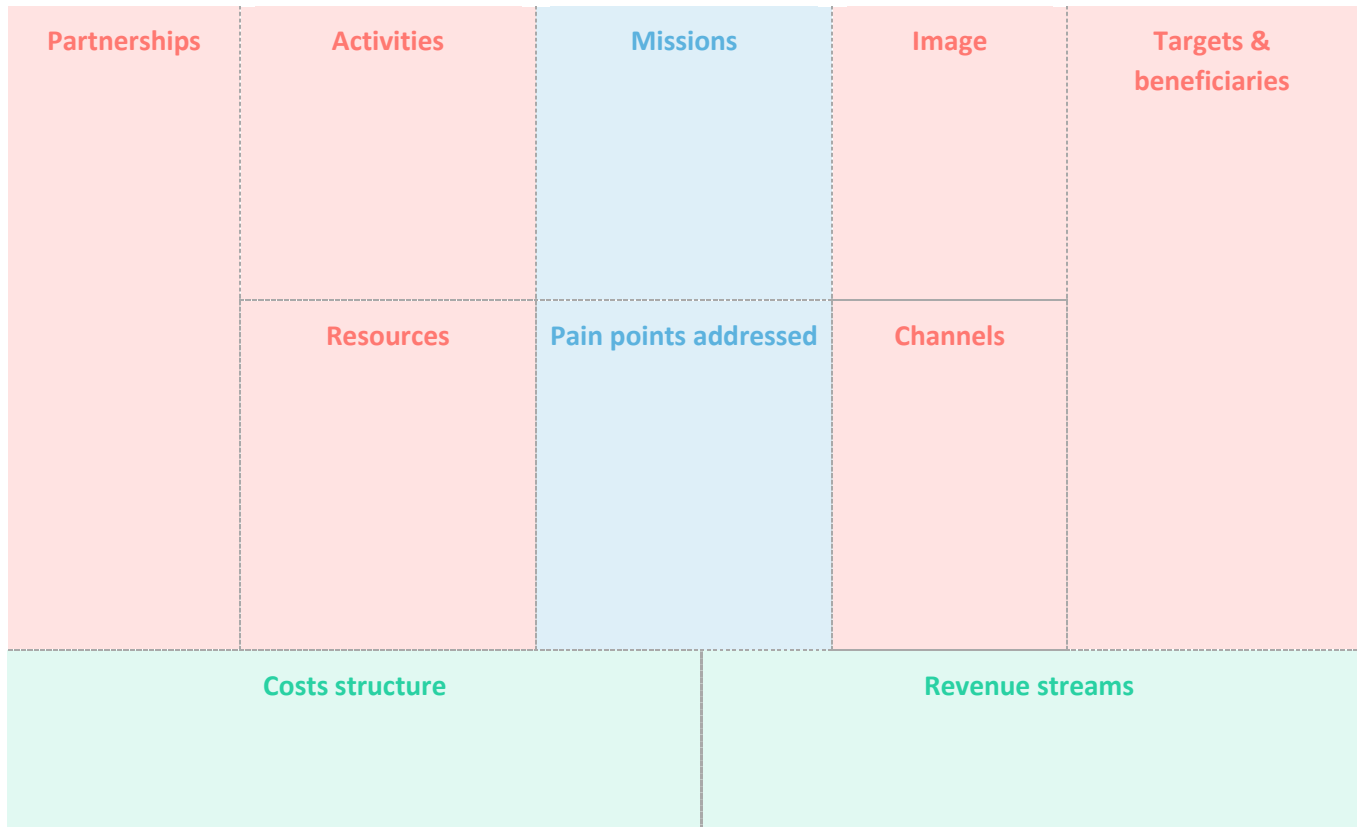


Figure 33: [Country] long-term activity model canvas

1.3 Details of the short-term activity model

1.3.1 Core activities

[Name of activity]	
Description, purpose & output	Describe briefly this activity. What is/are its output(s)? What purpose do they serve?
Beneficiaries	Who are the beneficiaries? How will they benefit from the activity?
Targets	Who are the targets, if any? How do you expect them to take into account the output?
Channels	Recall through which channels you will reach your beneficiaries / targets
Relationship	What relationship/kind of link, will you establish with your beneficiary/target? Will it be based on openness and co-creation? Compensation? Etc.
Resources	<p>List all resources that you'll need to produce the output(s):</p> <ul style="list-style-type: none"> • Skills & knowledge: • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): ○ External (partnership): • Materials / infrastructures: • Financial:
Partnerships	Recall any partnership linked to this activity
Costs	List of all costs incurred by this activity (both production and delivery). When will these costs be incurred?
Revenue streams	<p>Explain how this activity is viable:</p> <ul style="list-style-type: none"> • Is it commercially viable (revenues cover all costs)? • Is it funded (by your cell, or any other organisation – project-based, donation,)? • Is it a mix of revenue sources? • When will you gain these revenues? Will there be a period when costs will exceed revenues?

1.3.2 Support activities

[Name of activity]	
Description, Purpose	Description of this activity and its purpose
Resources & partnerships	<p>List all resources that you'll need to produce the output of this activity:</p> <ul style="list-style-type: none"> • Skills & knowledge: • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell) ○ External (partnership, if any describe quickly the partnership) • Materials / infrastructures: • Financial:
Costs	List of all costs incurred by this activity (production, delivery)
Revenue streams	Explain how this activity is viable

1.3.3 Platform activities and maintenance

Platform activities and maintenance	
Platform's purpose	<p>Description of all activities that the platform will support.</p> <ul style="list-style-type: none"> • Description of activity 1 and why the platform is used for it • Description of activity 2 and why the platform is used for it
Maintenance activities	Describe which activities are necessary for maintaining the platform
Resources	<p>List all resources that you'll need to maintain the platform</p> <ul style="list-style-type: none"> • Skills & knowledge: • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell) ○ External (partnership, if any describe quickly the partnership) • Materials / infrastructures: • Financial:
Costs	List of all costs incurred to maintain the platform
Revenue streams	Explain how the maintenance of the platform will be economically viable.

1.3.4 Channels

[Name of channel]	
Channel	Describe this channel (type, subject, audience, etc.).
Purpose	Explain for which activity(ies) this channel will be used, why it has been chosen for this activity and how you will use it.
Cost	Are there any cost incurred by the use of this channel (subscription cost...)
Rationale	Explain why you have chosen this channel.

1.3.5 Partnerships

[Name of partner]	
Describe your partner and the partnership	Describe your partner (type of organisation, activities, location...) and the partnership implemented with him (where, when, how).
Purpose & implementation	Explain which activity(ies) this partnership will support and why you have chosen to implement it. What value does this partnership add to your cell?
Cost	Are there any cost incurred by this partnership? (going to the partner's place etc.)
Rationale	Explain why you have chosen to implement this partnership, and why you have chosen this partner.

1.3.6 Viability

Economic balance	
Costs	Revenue streams per cost
Cost category 1	Revenue streams covering category 1
Cost category 2	Revenue streams covering category 2
<p style="text-align: center;">Viability</p> <p>Explain how you see the viability of your cell: how likely are you to be viable (meaning that all your costs are covered at any time and you have enough resources to fulfil your missions entirely and face any minor problem that can come your way)? Will there be certain periods you won't be viable? How will you adjust the activity of the cell in these periods? What else could you do to ensure the viability of your cell?</p>	

1.3.7 Assessment of the short-term activity model

Explain the choices you made for your activity model, and assess it against the following criteria:

Desirability:

- ✓ The mission(s) is desirable (other organisations, communities, individuals, etc. are interested by the changes your cell proposes to make)

Feasibility

- ✓ All competences, resources, needed for implementing the activities are within the competence cell, or brought by partners

Viability

- ✓ The activity model is viable

Effectiveness:

- ✓ The activities implemented allow for fulfilling the mission
- ✓ Partners express and secure long-term commitment to each other
- ✓ The activity model is scalable
- ✓ Continuous demonstration and communication of the value

Efficiency or **why your activity model is optimised for fulfilling the competence cell's missions:**

- ✓ The channels are optimised: meaning that they allow for fulfilling the mission (via reaching the targets/beneficiary) while not costing too much and you have the capacity to use these channels
- ✓ The partnerships are optimised, meaning that, thanks to them, the competence cell is more likely to be viable and fulfilling its mission (a partnership is not optimised if it makes the cell depart from its mission, and/or costs too much for the gains it brings)
- ✓ The revenue streams are optimised for fulfilling the mission (meaning that you maximise your chances to have enough revenues to cover all the costs that fulfilling your mission at 100% incurs).

1.4 Details of the long-term activity model

For the long-term activity model, since it is not so clear what it will be, we only ask you to report on the core activities, the viability and the assessment.

1.4.1 Core activities

[Name of activity]	
Description, purpose & output	Describe briefly this activity. What is/are its output(s)? What purpose do they serve?
Beneficiaries	Who are the beneficiaries? How will they benefit from the activity?
Targets	Who are the targets, if any? How do you expect them to take into account the output?
Channels	Through which channels will you reach the beneficiaries/the targets and deliver the output? (please describe all channels and who each will reach; e.g. just “website” is not precise enough).
Relationship	What relationship/kind of link, will you establish with your beneficiary/target? Will it be based on openness and co-creation? Compensation? Etc.
Resources	List all resources that you’ll need to produce the output(s): <ul style="list-style-type: none"> • Skills & knowledge: • Humans: <ul style="list-style-type: none"> ○ Internal (people working in your cell): ○ External (partnership): • Materials / infrastructures: • Financial:
Partnerships	List the partnerships implemented to create, deliver the output, and reach beneficiaries/targets, if any. Describe them briefly (with whom, type of partnership, ...).
Costs	List of all costs incurred by this activity (production, delivery). When will these costs be incurred?
Revenue streams	Explain how this activity is viable: <ul style="list-style-type: none"> • Is it commercially viable (revenues cover all costs)? • Is it funded (by your cell, or any other organisation – project-based, donation,)? • Is it a mix of revenue sources? • When will you gain these revenues? Will there be a period when costs will exceed revenues?

1.4.2 Viability

Economic balance	
Costs	Revenue streams per cost
Cost category 1	Revenue streams covering category 1
Cost category 2	Revenue streams covering category 2
Viability	
<p>Explain how you see the viability of your cell: how likely are you to be viable (meaning that all your costs are covered at any time and you have enough resources to fulfil your missions entirely and face any minor problem that can come your way)? Will there be certain periods you won't be viable? How will you adjust the activity of the cell in these periods? What else could you do to ensure the viability of your cell?</p>	

1.4.3 Assessment of the long-term activity model

Explain the choices you made for your activity model, and assess it against the following criteria:

Desirability:

- ✓ The mission(s) is desirable (other organisations, communities, individuals, etc. are interested by the changes your cell proposes to make)

Feasibility

- ✓ All competences, resources, needed for implementing the activities are within the competence cell, or brought by partners

Viability

- ✓ The activity model is viable

Effectiveness:

- ✓ The activities implemented allow for fulfilling the mission
- ✓ Continuous demonstration and communication of the value

Efficiency or why your activity model is optimised for fulfilling the competence cell's missions:

- ✓ The revenue streams are optimised for fulfilling the mission (meaning that you maximise your chances to have enough revenues to cover all the costs that fulfilling your mission at 100% incurs).

1.5 Path from the short-term to the long-term activity model

1.5.1 Actions for transforming the model

[Transforming action]	
Action description	Describe the action and its purpose
Resources	What resources do you need for implementing this action?
Costs	What will be the costs?

1.5.2 Process & feasibility

Explain how you will transition:

- How will you organise the transformation? (management, timing)
- What are the critical transforming actions? What is the “critical” path, the succession of key actions that is critical to ensure a successful transformation?
- How will you cover the transforming costs?
- What could go wrong?
- How will you manage that?

Finally, synthesize the transforming costs and how they are covered in the following table.

Transformation: economic balance	
Costs	Covering costs
Cost category 1	Explain how you'll cover the transformation costs
Cost category 2	
Cost category 3	

1.6 Conclusion

Conclude by:

- Indicating what are the key activities that will allow your cell to foster a change towards co-RRl (both from the short-term and long-term models)
- Explaining why your activity models have a good “value configuration” -> that is: how the activities and cell's organisation are well aligned with the missions, and with the internal & external capabilities that your cell has, and how all that is viable
- Explaining how you will maintain an interest for your cell and its activities up to the long-term at least
- Assessing what the weaknesses and threats (including competition) for the viability of your cell are and how you can mitigate them.

3. Annex 3 – Toolkit for the outreach workshop

Strategies, scenarios & activity models for fostering RRI

T2.4



Scenario: constituting elements

A scenario describes one option for **fostering the transition towards RRI systems**.
A scenario covers the followings:

- What is done under the scenario to foster the transition? Which organisation(s) is/are responsible for doing so? How does/do this organisation function, and if there are several, how do they function together?
- How the transition towards RRI will be performed? Is this an efficient approach to foster the transition?
- How the organisation(s) at stake sustain itself while fulfilling its mandate for fostering the transition?

Scenario: constituting elements, canvases

A scenario is therefore made of:

- ✓ The scenario's **high-level description canvas**: this presents the outlines describing the scenario and the 'RRI objectives' the scenario proposes to reach;
- ✓ The scenario's **strategy canvas to foster RRI**: this presents *how* the scenario will indeed foster a transition and reach its objectives
- ✓ The (different) **activity model(s) canvas(es) at stake**: they describe how each different organisation sustain itself while fulfilling its mandate for fostering the transition
- ✓ A visual representation of the organisations and their interactions among them and with target actors and partners, to gives a *simple understanding* of how the scenario functions

Scenario: constituting elements, nota bene

An organisation is different from the target actors, and from the partners.

The target actors comprise of: direct beneficiaries of the activities carried out in the scenario and other actors that do not beneficiate but are still targets of the activities.

Partners are actors that carry some activities that cannot be carried out by the scenario's organisations.

High-level description canvas

The high-level description canvas comprises of:

- The **high-level objectives** the scenario intends to achieve, addressing some (or all) **shortcomings or failures** of the current R&I system
- The **main lines of action of the whole system** that will allow to reach the high-level objectives
- A brief overview of the **main organisations** 'responsible' for the main lines of actions, plus an overview of **target actors (beneficiaries and any other target actors) and partners**, if any; at **each level**
- The **motivations** of each organisation to take responsibility for the activities that will be realised under the main lines of action, the added value for the beneficiaries and the motivations of partners, if any

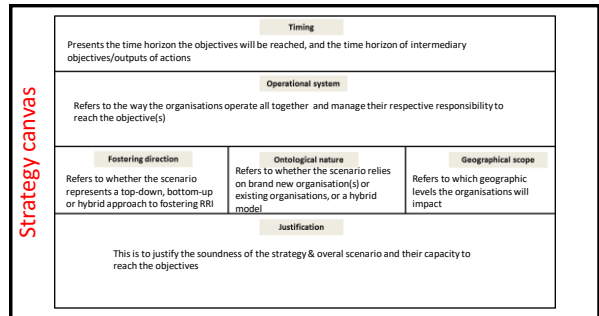
High-level description canvas

Brief description of the scenario	
Main lines of action The main lines of action that will allow to reach the high-level objectives and make the R&I system more responsible?	High-level objectives They intends to achieve shall address some (or all) shortcomings or failures of the current R&I system
Organisations, targets, partners and levels A brief overview of <ul style="list-style-type: none"> - the main organisations 'responsible' for the big actions, - of target actors - and of partners, if any 	Motivations Explain what could motivate: <ul style="list-style-type: none"> - The main organisation(s) - The target actors - The partners to 'participate' in this scenario

Strategy canvas

The strategy describes the way the objectives will be achieved. It comprises of:

- The **fostering direction**: refers to whether the scenario represents a top-down, bottom-up or hybrid approach to fostering RRI
- The **ontological nature** of the organisations involved: refers to whether the scenario relies on brand new organisation(s) or existing organisations, or a hybrid model
- The **overall operational system**: refers to the way the organisations operate all together and manage their respective responsibility to reach the objective(s)
- The **geographical scope of action**: refers to which geographic levels the organisations will impact
- The **timing of operation**: presents the time horizon the objectives will be reached, and the time horizon of intermediary objectives/outputs of actions
- An **overall justification** of the strategy: this is to justify the soundness of the strategy & overall scenario and their capacity to reach the objectives



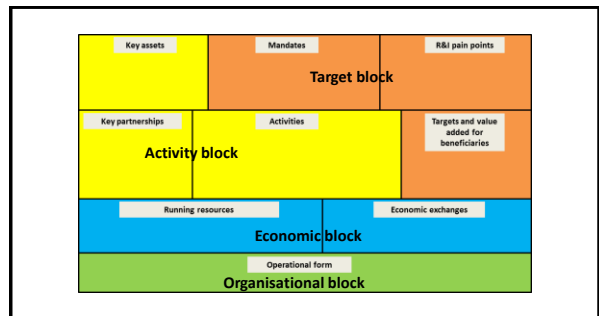
Activity model canvas

An activity model describes the way an **organisation**:

- tackle the shortcomings/failures or **pain points** of the current R&I system in a responsible way
- while sustaining itself through time

It is made of 15 blocks divided in 4 bigger blocks:

- The target block (**orange**)
- The activity block (**yellow**)
- The economic block (**blue**)
- The organisational block (**green**)



Activity model – target block

The target block (**orange**): this identifies the pain points that are tackled by this activity model and connects them with:

- the mandate(s) of the organisation: the broad mission(s) to tackle the pain points
- the target actors:
 - Actors that benefit from the activity model (added value for them)
 - Actors that are addressed by this activity model but which do not necessarily benefit from it (for e.g. policy makers could be addressed by lobbying actions, but they do not gain an 'added value' from lobbying).

Activity model – activity block

The activity block (**yellow**): this identifies the activities that must be done to fulfill the mandate(s) and connects them with:

- the key assets that are needed to 'produce' the activities, including tangible and intangible assets
- the eventual partners that do what cannot be done by the activity model (for various reasons: an activity is too costly, requires a significant network etc.)

Activity model – economic block

The economic block (blue): this constitutes the balance between what the organisation needs to fulfill its mandate and what it gains from it.

It is made of two sub-blocks: running resources & economic exchanges, which differential (economic exchanges – running resources) should be superior or equal to zero.

Running resources are different from key assets. The 'economic exchanges' include the remuneration/compensation/valorisation streams when relevant.

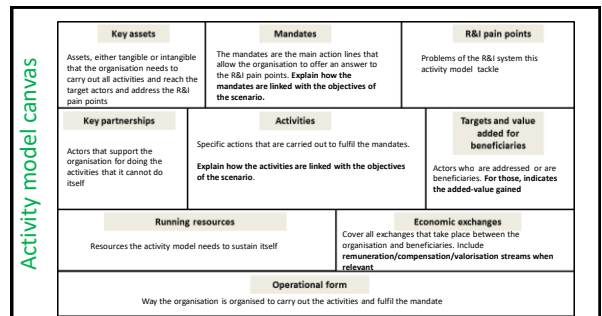
Activity model – organisational block

The organisational block (green): this is made of:

- The operational form: describes how the activity model function through time and the nature of the organisation

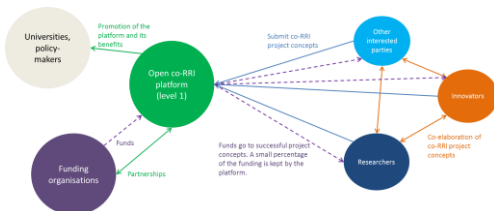
Activity model - guidelines

- An activity model canvas should be filled for each organisation that is different from the others
- In the 'mandate' explain how those are linked with the objectives of the scenario
- In the 'activities' explain how the activities are linked with the objectives of the scenario
- In the 'targets' indicates the added-value for the beneficiaries
- In the 'economic exchanges' do not forget to include the remuneration/compensation/valorisation streams when relevant

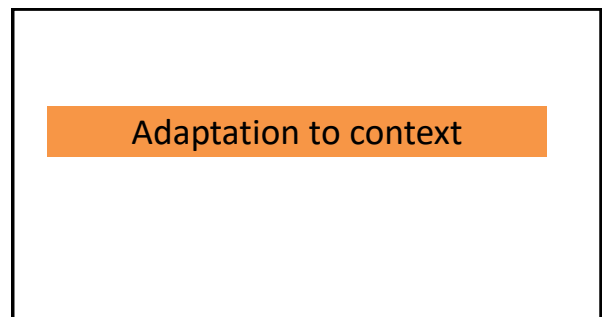
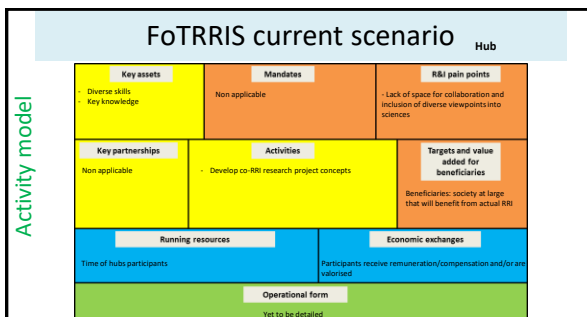
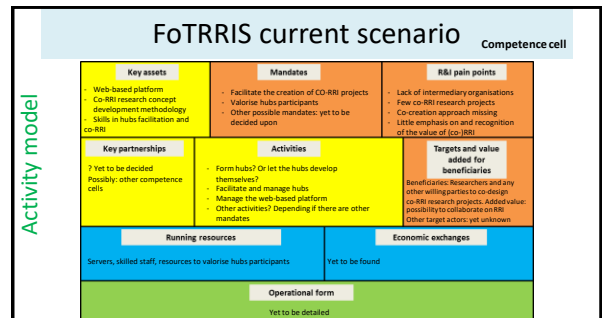
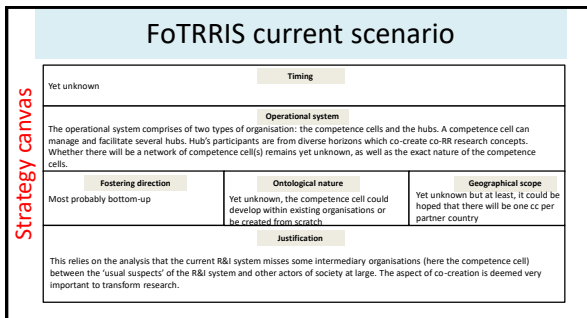
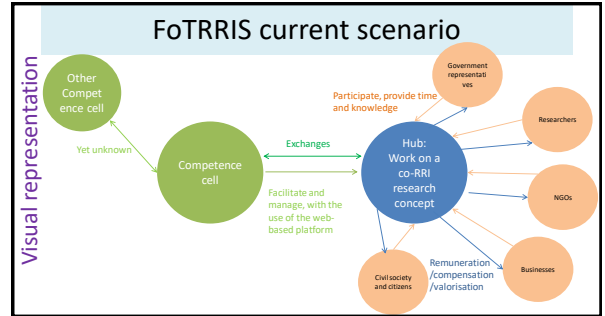
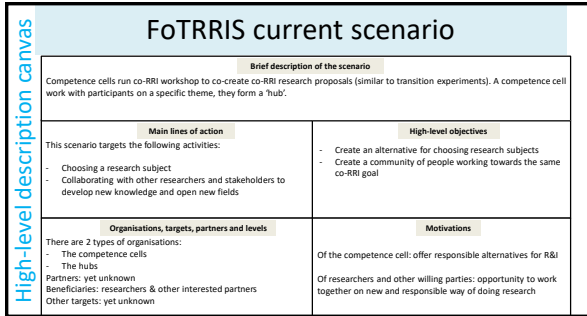


Visual representation

(example)



FoTTRIS current scenario



- How this scenario could look like according to your national and local context, which conditions and requirements are necessary and fruitful
- How your team envisions the mandate & tasks of your competence cell
- How could a compensation & rewarding strategy look like: what was your compensation and rewarding strategy for the Transition Experiments and how were Competence Cell members rewarded, and which other options could you imagine (e.g. picking up strategies implemented in other TEs, e.g. 'knowledge vouchers', vouchers for local businesses, etc.)

Ideas of scenarios

The scenarios presented here have, for some, a very different approach to what is currently done in FoTRIS, in order to broaden the perspectives on what can be done.

The European approach

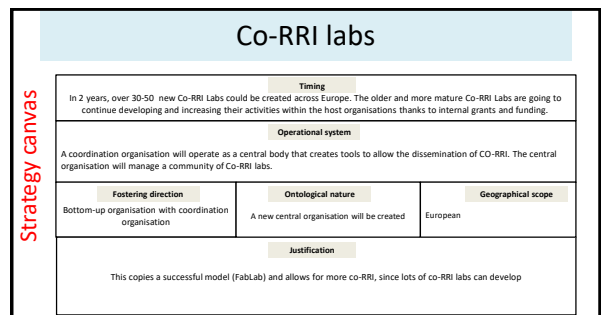
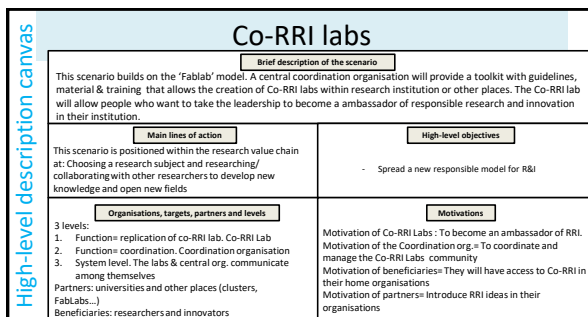
This is the most top-down approach. It means that the EU is convinced of adopting co-RRRI principles and methods. This requires an important lobbying action until the EU adopts co-RRRI as the 'new way' of doing research. Lobbying can also be done at national or even regional level.

A 'co-RRRI' lobbying organisation could be created.

The loose network of competence cells

This scenario is similar to the current one: competence cells establish hubs. Their mandates vary according to the context, capabilities and desires of their members. Then there are two possibilities:

- There exist a co-RRRI charter and each competence cell, to claim the name of 'co-RRRI competence cell', must abide by the charter. New competence cell can join the network if they respect the charter as well. This way key RRI elements exist in each competence cell but they can also make their own choices
- All competence cells are within an association. The association is quite loose, with annual meetings and some collaboration but the cells are quite autonomous. For organisations that would like to be part of the network and claim themselves competence cells, they must become part of the association (the legal nature of the association is yet to be decided).



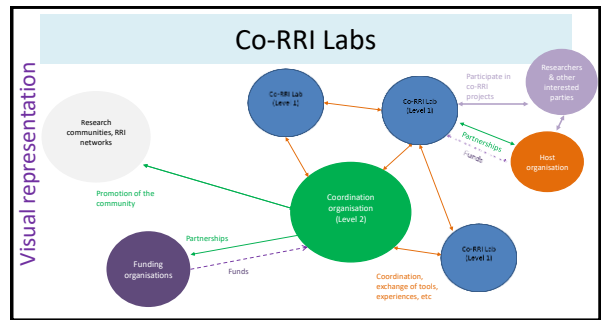
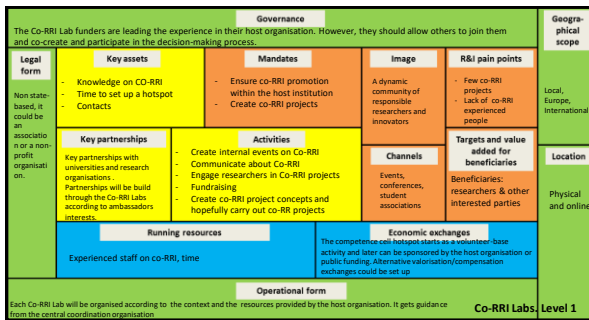
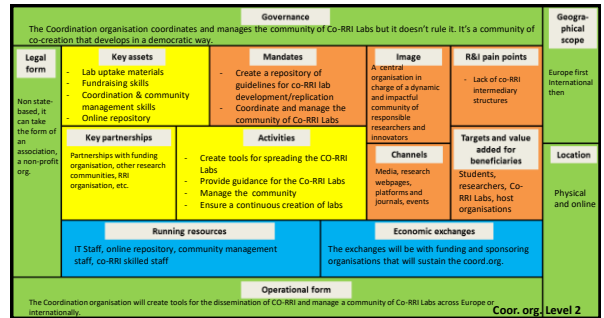
Co-RRRI labs

Activity model

There are three levels in this scenario:

- Level 1: Function=replication. Organisation= Co-RRRI Lab
- Level 2: Function= coordination. Organisation= Coordination Organisation
- Level 3: System level

Therefore, two activity models are presented, that of the Co-RRRI Labs and of the coordination organisation.



Open co-RRRI platform

High-level description canvas

Brief description of the scenario	
This scenario is based upon an open innovation and funding platform called "Open co-RRRI" platform. Researchers and other actors can collaborate online to develop co-RRRI project concepts. They can then submit their concept to the platform. The platform evaluates the concepts according to a co-RRRI evaluation grid. Concepts that successfully pass the evaluation are guaranteed to be funded.	
Main lines of action	High-level objectives
This scenario targets the following activities of the research value chain: Choosing a research subject and researching / collaborating with other researchers to develop new knowledge and open new fields / funding / looking for funding / evaluating research proposals	<ul style="list-style-type: none"> - Create an alternative for choosing research subjects - Create a community of people working towards the same goal (co-RRRI) (Few hundreds in 2 years time) - Offer funding for co-RRRI projects (SME in 2 years time) - Evaluate against co-RRRI criteria
Organisations, targets, partners and levels	Motivations
This is a 2 levels scenario: 1) Function= open innovation, evaluation & funding. Organisation= Platform. 2) System level. Partners: research and funding organisations Beneficiaries: researchers & other interested partners Other targets: policy-makers & research & funding organisations	<ul style="list-style-type: none"> Of the open co-RRRI platform: offer responsible alternatives for R&I Of researchers and other willing parties: opportunity to work on co-RRRI projects Of research and funding organisations: image building

Open co-RRRI platform

Strategy canvas

Timing	
It is expected that it would need 1 to 2 years to reach a critical mass of interested parties and to have a funding budget of around SME. From that point, it is expected that the number of platform members will continue to grow, as well as the funding budget.	
Operational system	
The operational system comprises of an online platform that ease a certain number of traditional research activities and which is available 24/24 & 7/7, a 'community' of interested parties, and of partners (funding & research institutions). The success of the platform is heavily dependent upon the funding budget, and therefore, upon the partnerships with funding institutions. The platform should therefore continuously seek to develop such partnerships and should promote itself actively.	
Fostering direction	Ontological nature
Hybrid. Bottom-up = platform; top-down = top-down funding. However, more bottom-up funding could be investigated	This scenario requires a new web platform or the transformation of the existing one.
Justification	
This scenario harnesses the trend towards open innovation. Similar platforms exist, which ensures that this form of action is possible and has a potential. Its main strength is that it represent an alternative for developing project concepts and matching interested parties. The digitalisation ensures that this form of action is easily actionable and can be used by the greatest number of people.	

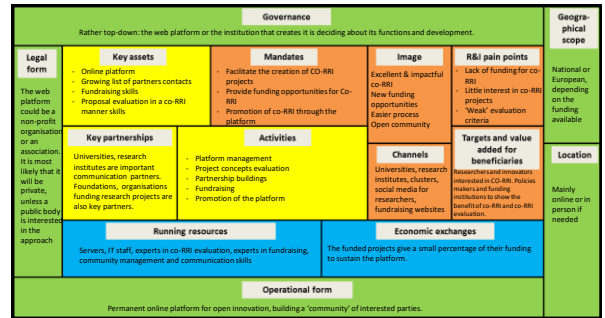
Open co-RRI platform

Activity model

There are two levels in this scenario:

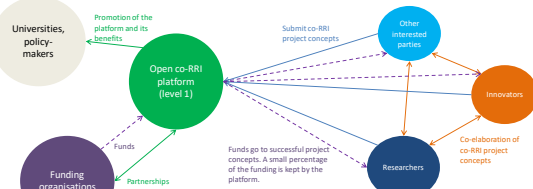
- Level 1: Function= open innovation, evaluation & funding. Organisation= open co-RRI platform.
- Level 2: system level

Therefore, only one activity model is represented, that of the platform.



Open co-RRI platform

Visual representation



Matchmaking for co-RRI skills & services

High-level description canvas

Brief description of the scenario	
A matchmaking organisation allows services & skills for CO-RRI projects to be exchanged for a virtual coin or other services and skills. The matchmaking organisation allows various people, with an interested in Co-RRI and different skills, to meet and exchange services and skills.	
Main lines of action	High-level objectives
This scenario is positioned within the research value chain at: Collaborating with other researchers to develop new knowledge and open new fields, advancing one's career, co-RRI research	<ul style="list-style-type: none"> Create a community of skilled persons in co-RRI Favour the development & uptake of co-RRI projects
Organisations, targets, partners and levels	Motivations
This is a two levels system: 1. Function= matchmaking. Organisation= matchmaking organisation 2. System level Partners: Research institutions from where researchers could be recruited. The target actors are only the beneficiaries, which are the people that will exchange skills & services.	Motivations of beneficiaries: people will exchange their skills and the skills they need allowing them to fulfil CO-RRI project needs. Motivations of the matchmaking organisation: offer an alternative of responsible 'co' collaboration

Matchmaking for co-RRI skills & services

Strategy canvas

Timing		
The matchmaking organisation could start with a pilot project. If it is successful, a significant number of exchanges could happen in the first two years after the completion of the pilot project.		
Operational system		
The matchmaking organisation promotes CO-RRI and at the same time it coordinates the exchanges of CO-RRI skills and services among the beneficiaries. To make sure demand and supply are meet it is important to continuously recruit new users to become part of this matchmaking place.		
Fostering direction	Ontological nature	Geographical scope
This is a bottom-up approach, since it does not rely on government bodies	This scenario requires to create a new 'matchmaking' organisation	Initially regional, then national, and then European.
Justification		
This scenario gives a remuneration/ incentive to researchers participating in CO-RRI, also it eases the access to RRI skills. In that way, it fosters CO-RRI projects uptake.		

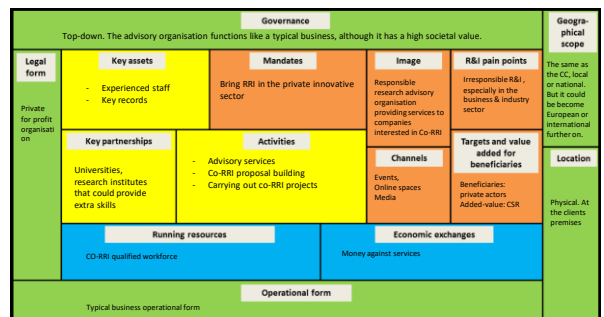
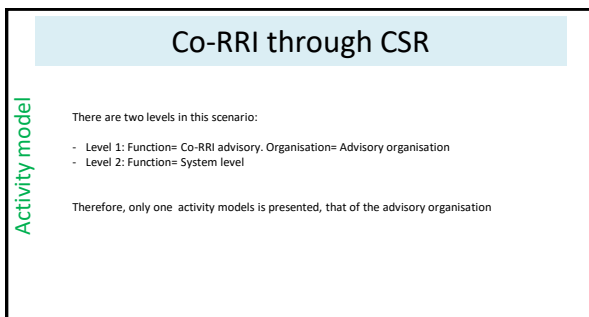
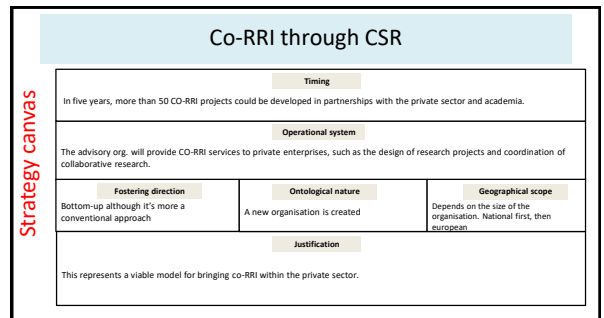
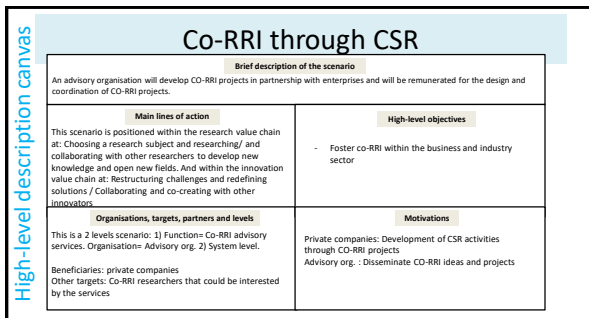
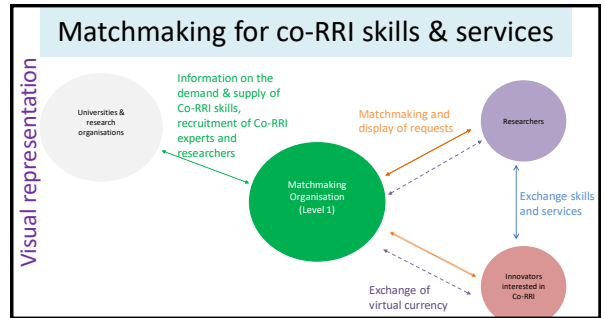
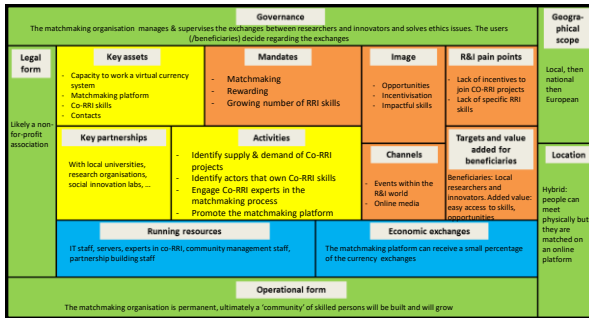
Matchmaking for co-RRI skills & services

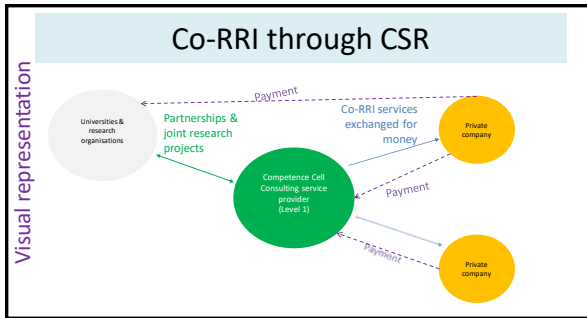
Activity model

There are two levels in this scenario:

- Level 1: Function= matchmaking. Organisation= matchmaking organisation
- Level 2: system level

Therefore, only one activity model is represented, that of the matchmaking organisation.





The responsible crowdfunding platform

In this scenario, an online platform is developed that showcases co-RRR project concepts. The crowd funds the project concepts it likes most.

The 'SoScience' model

This scenario builds on the French social entrepreneurship start-up '[SoScience](#)'. This start-up proposes to match social entrepreneurs and research centers to help the social entrepreneurs to develop their activity in a responsible way.

This could be one activity for the competence cell, or their sole activity. Another option is that an association of 'co-RRR' experts develops and sells matchmaking services between social entrepreneurs and research centers, and provide 'co-RRR' guidance.

The 'organised infiltration'

This scenario relies on a 'co-RRR organisation'. This organisation revolves around the promotion and progress of co-RRR. Its main activities is to establish co-RRR units within existing organisations, to provide guidance to these new units and ensure that they follow RRI principles.

The responsible research network

The objective of the scenario is to sustain an international research network that carries out responsible research. The overall organisation is similar to that of the 'Future Earth' network, with the researchers belonging to various research institutions.

A conceptual framework guides the research network towards addressing key research challenges.

This scenario would require a significant amount of motivated researchers, and high capabilities in governing an international network and in research funding. It would need to establish strong contacts with existing funding organisations & existing research networks.

The legal structure is likely to be hybrid (with private and public organisations involved) and the economic exchanges being: funds against research.

The RRI summer school

In this scenario, an organisation is created which proposes 'co-RRR summer schools' where co-RRR principles and methods are taught to those interested.

Options for scenario buildings

Options for strategy

Fostering direction

- Top-down. A top-down approach would mean that RRI is implemented by existing R&I powers (ministries, EU research programmes, etc.)
- Bottom-up. A bottom-up approach does not rely on existing powers. Fab-labs model is bottom-up.
- Hybrid (a combination of both approaches)

Ontological nature

- New organisation. A new organisation would mean that we create something completely new.
- Infiltration. This means that we would not create something new but that we would rely on existing organisations, favourable to co-RRI approaches.
- Hybrid (a combination of both)

Geographical scope

- Local/regional
- National
- European
- International
- Hybrid (more than one)

Options for mandate

- Provide methods, tools, skills for RRI
 - For each type of actor involved in the R&I value chains
 - For each R&I activity
- Enforce RRI
- Govern R&I system
- Research on RRI itself
- RRI (research and innovation processes that are responsible)
- Promotion of RRI
- (Alternative) RRI funding
 - RRI funds
 - New metrics for proposal funding taking into account RRI characteristics
- Support to RRI development and implementation
- Mediation & catalyse

Option for activities

- Training
 - Sourcing of non-traditional sources of information and knowledge
 - Participating pro-actively in debates on R&I policy.
- Assisting funding organisations in defining appropriate criteria for the funding of Co-RRI projects.
- Communicating to competent authorities about the barriers Co-RRI projects face.
- Presenting the competence cell's activities and achievements at (international) conferences, colloquia, workshops, etc.
- Making the competence cell visible in various (popular) media.
- Certifying researchers that have successfully completed a course, for instance a MOOC, on Co-RRI.
- Certifying facilitators as qualified for enabling people to work according to Co-RRI standards.
- Networking
- Matchmaking of skills, competences
- Project matchmaking
- Crowdsourcing
- Design research projects
- Coordinate collaborative proposals
- Courses and workshops on CO-RRI (training on RRI, ethics, privacy concerns)
- Consulting for enterprises that want to develop CO-RRI projects
- Community building
- Support to responsible entrepreneurship
- Service to ministries
- Support to meet RRI criteria in proposal building
- Marketing of RRI solutions
- Conflict management
- How to work collaboratively, and be open-minded even though it's a political concept, etc.
- Certification/label accreditation
- Strategic action to foster RRI even more

Options for key assets & partners

- Online platform
- P2P tools (blockchain, OPPLA)
- Institutionalisation tools
- Specific knowledge & skills
 - Capacity to elaborate policy recommendations
 - Ability to create a certification/standard
 - Capability to work with alternative currencies
- Specialisation in research funding
- Access to latest insights on (co-) RRI
- Educational resources
- Certifications
- Contacts
- Up2Europe
- Other market places
- Science shops
- Universities
- Higher institutions already working on ethics, developing RRI
- Civic techs
- Ministries
- EU programmes & next frameworks programme
- NGOs
- JPI / FACCE JPI
- Force II, SPARC, So-Science, ARTS
- Funding agencies

Options for economic exchanges - 1

We include in economic exchanges all types of exchanges that take place between the organisation and beneficiaries (a beneficiary is defined as benefitting from the activities carried out).

One major point in the economic exchanges is to define whether they will be **open or closed**, or **hybrid** (a mix of both). An open model allows several parties to work / do things together; in a closed model, no external party can participate in the work carried out by the organisation, it can benefit from it (by buying a service, a product for e.g.) but that is all. The open models are:

- The contribution model. This is the Wikipedia model: several parties contribute for 'free', no profit is made whatsoever. The model's viability is weak and relies on funding and donations
- The hybrid model. This case is the mix of a contribution model with a 'for-profit' model. The revenues of the 'for-profit' activities ensure the viability of the activities made under the contribution model.
- Dual. This is the 'freemium' model. One part of what is produced collaboratively is offered for free to certain users and against payment for other types of users; or, one part is offered for free, while upgrades are offered against payment.

Options for economic exchanges - 2

Some possibilities for the economic exchanges: note that they do not contradict with the previous open/closed dimension. For e.g. even in an open model, some exchanges can be 'profit' exchanges (dual or hybrid open model); in a closed model, the exchanges can be 'not-for-profit'; that would be the case of an NGO that does not work in an 'open' model.

- 'Profit only' exchanges:
 - Payment per service/product delivered
 - Commission / success fee
 - Membership fee
 - Freemium
- 'Not-for-profit only' exchanges. In that case, the economic exchanges need to be funded:
 - By private funds
 - Crowdfunding
 - Philanthropy
 - Individual donations
 - By public funds
- Hybrid exchanges: some of the exchanges are 'profit-only' and some others are 'not-for-profit only'.

Options for economic exchanges - 3

Independently from the type of economic model (open/closed) and the nature of the exchange (profit/not for profit), there is another variable: the means of exchange, which can be:

- Money
- Alternative currencies: vouchers including knowledge vouchers, time exchange, alternative currencies etc.

Possibilities for the remuneration, compensation & valorisation streams:

- Money or alternative means of exchange (remuneration, compensation)
- Peer rating (valorisation)

Options for economic exchange - 4

Here are some others possibilities for open models:

- Platform model:
 - Diffusion: this model is one of a platform that 'diffuses' / 'releases' a certain content (knowledge, ...). In that case, the economic exchange can be sustained by a commission when accessing the content or ads fees
 - Financing: this is the 'crowdfunding' platform type. The economic exchanges can be sustained by a commission when using the platform and services
- Opening strategy: this is when only a part of the activity model becomes open
 - Increasing existing revenues. The idea is to open a part of the activities so that it will tap bigger revenues after, while offering a bigger social value. This is the model of free MOOCs (massive open online courses). Universities offer for free some of their courses.
 - Cost reductions. This is for e.g. the car sharing model: cost of mobility is shared among a greater number of individuals while maximising social & environmental values
 - Transformation of a sector: this is for e.g. the Tesla model which opened all its patents so that the transformation of the car sector towards electrical cars progresses further.

Other options for the activity model - 1

Legal form

- State-based
 - Within the 'usual suspects' of R&I system (e.g. universities; government agencies; ...)
 - Independent
- Non state-based (company, association, ...)
- Public Common Partnership (like a Public – Private partnership but with a 'common'-based organisation instead of a private one)

Governance

- Top-down. The activities are decided upon by the hierarchy of the organisation
- Bottom-up. All activities are decided with all relevant parties
- Hybrid (both)

Location

- Physical. In an office; a classroom...
- Online. Website, platform...
- Hybrid (both online and physical)

Geography

- Local/regional
- National
- European
- International
- Hybrid

Operational form

- Temporary (e.g. summer school)
 - Permanent
 - At all level but the first, if there are different organisations within the level: homogeneous/heterogeneous
- This indicates whether the organisations at a given level do exactly the same things or not
- Community
 - Autonomous organisation(s)

Other options for the activity model -2

Image

- Expert centre
- Advocacy
- Third place
- ...

Channels

- Social media
- Events & networking
- Universities
- ...

Running resources

- Staff
- Time
- Budget to travel
- Server
- ...