



D3.1 Situated adaptation of common framework for Co-Change labs

Version 1.6

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CO-CHANGE

Table of contents

EXECUTIVE SUMMARY	1
Aim	1
1. Points of departure	1
2. Building the frame	6
3. Objectives	7
4. Theoretical compliance	9
5. STIRRI Procedural description	12
6. Next steps	15
References	16



EXECUTIVE SUMMARY

After a close collaboration with WP2 Leaders and the seven Labs of the project we created a methodology that systematically integrates three key elements 1) the Social Lab approach, which deals with social experiments in real-life environment, 2) the RRI framework conceptualizing a variety of science-society relationships and 3) the STIR (Socio-Technical Integration Research) decision protocol which structures dialogue and reveals the context of expert choices. As building transformative capacity and leadership is a complex and many-layered process, in our approach we break down the visions of the Labs into small and more manageable tasks or “challenges”, which may take the form of an issue, a problem, or any occasion or situation that calls for a response in the area of RRI. To facilitate the identification of challenges, RRI topics are gradually introduced by external rotating experts, tapping in this way on the collective intelligence of the participating organizations. Challenges are further decomposed by the STIR protocol and explored in four different dimensions: opportunities, considerations, alternative, outcomes. Thus, each application of the protocol reveals a small “slice of Lab” from a larger context, it is opened up and assessed in a group of diverse stakeholders. This micro-scale reflection uncovers the contextual dimensions of Lab decisions in real-time, but also what is experienced by the Lab leader, namely his or her “human” cognitive, affective, ethical, personal and professional goals and articulations. The STIRRI sessions are repeated over time in an iterative way, aiming to gradually remove barriers and to achieve a spiral effect in which the focus progressively shifts from “research/Lab values” to “public values.” The resulting coaching program provides a vibrant collaboration instrument maintaining the experimental nature of Social Lab, nourished by the unending RRI discourse about how to conduct research in an ethical, responsible and sustainable way, framed in an iterative and easy to follow decision protocol. This turns it into a unique transferable and method that could be applied in other organizations aiming to achieve institutional changes at larger scale.

Aim

D3.1 aims to create a meaningful transition from the theoretical analysis conducted in the previous tasks to the upcoming practical challenges of WP3. Thus, the deliverable aspires to create a framework that collects and exchanges knowledge between the Labs and progressively guides them to the building of change coalitions aimed in Task 3.3 and the long-term sustainability required in 3.5. The framework will be gradually co-created by all Labs tapping into their experimental processes and the ingenuity of their eco-systems.

1. Points of departure

The document parts from some of the analysis done in previous project tasks:

- Evaluation of the “Lab Launch” interviews conducted by AIT in WP1
- Brainstorming on the Lab needs during the General Assembly
- Reflection survey conducted as part of WP6
- Survey designed to further elucidate the needs for collaboration of the Labs
- Brainstorming providing a whole set of various potential ideas for joint work



- Guidelines for the Co-Change platform by AIT (WP2, D2.1)

1.1 Evaluation of the “Lab Launch” interviews

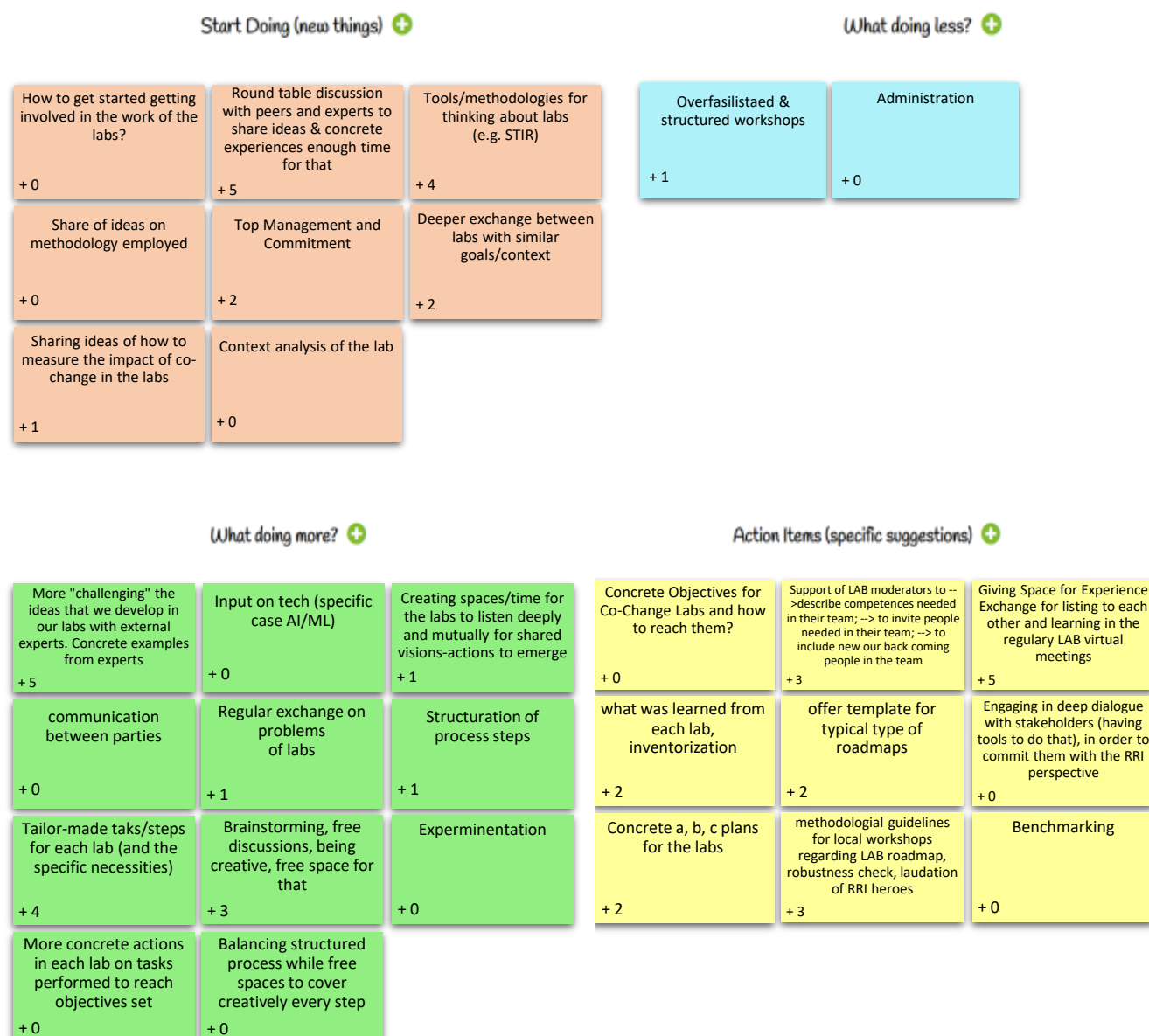
The exploration of the Labs needs started with a detailed analysis of the interviews conducted by AIT in May 2020. The objective of the screening was to capture clear, as well shadowy areas of tension in RRI of the different Labs that could be converted into areas of collaboration. On the positive side, keywords and phrases expressing challenges, goals and opportunities, such as “smart cities”, “narratives”, and “start-up community”, “student community” were collected. These keywords were used in the second brainstorming session in November to trigger possible ideas for collaboration.

1.2 Brainstorming during the General Assembly

In the context of the Forum 1 Lab managers were inquired to brainstorm about the support they would need in order to progress with the development of their roadmaps. Four questions were raised:

- 1) What should we start doing (new things)?
- 2) What should we do less?
- 3) What should we do more?
- 4) Action items (specific suggestions)

Fig. 1 Brainstorming results from post-Forum General Assembly



After a voting process, the suggestions for concrete support provided in WP3 that scored best, with 4 and 5 points were the following:

- Round table discussions with peers and experts to share ideas /& concrete experiences, enough time for that
- Tools/methodologies for thinking about labs (e.g. STIR)
- More "challenging" ideas that we develop in our labs with external experts. Concrete examples from experts
- Tailor-made tasks/steps for each lab (and their specific necessities)
- Giving space for experience exchange for listening to each other and learning in the regularly held Lab virtual meetings

1.3 Reflection survey conducted as part of WP6

The reflection survey conducted in WP6 had the aim to collect data about the state of the Labs at the beginning of the project. In the last section Labs were asked to mark the RRI Tools that they were currently using or interested to use. The following tools were offered for selection:

- Matter Principles for Responsible Innovation
- B-Impact Assessment: social and environmental impact benchmarking
- ORBIT Self-Assessment Tool
- Future-Fit Business Benchmark
- Licara NanoScan: Integrating risk assessment and life-cycle analysis for nanomaterials
- Gender Equality Diagnostic Tool: toolkit to improve gender equality in the organization strategy
- GENDER-NET IGAR Tool
- OECD Toolkit for Mainstreaming & Implementing Gender Equality
- WEP United Nations tool for gender equality in firms
- Gender Institutional Transformation
- Designing for Values Tool: a reflection tool to embed values in your product
- Societal Readiness Level Thinking Tool
- COMPASS Self-Check Tool
- RRI KPI Analysis Tool
- CEN/WS 105 Guidelines to Innovate Responsibly
- Benchmarking for a Better World
- ISO 26000 Social Responsibility
- ISO 31000 Risk Management
- SDG Action Manager
- SDG Impact Assessment Tool
- EDGE Tool: Interactive tool to assess your institution's support for public engagement
- Responsibility Navigator
- ORION open science self-assessment tool
- PAS 440 - Responsible innovation – Guide
- Stakeholder engagement by Business for Social Responsibility: Rethinking your strategy for stakeholder engagement
- Stage-gate model
- Embedded ethicist: Your own in-house ethical reflection practitioner

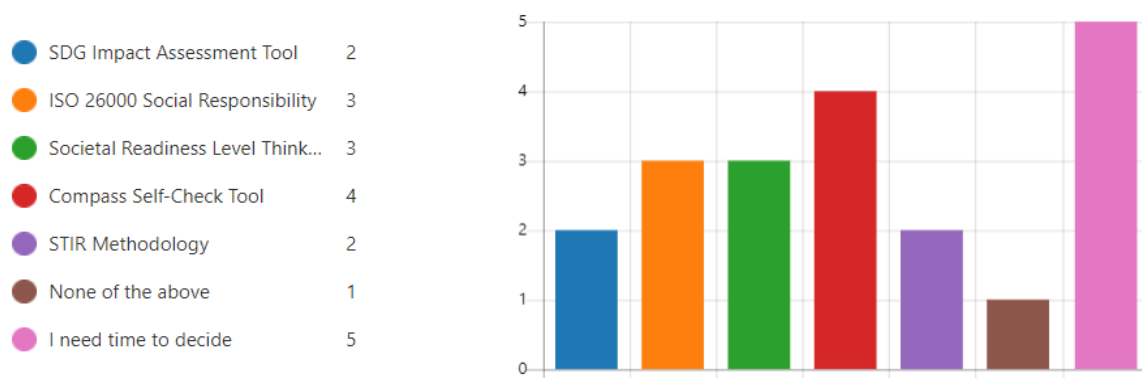
The results of this part of the survey were important for the design of the collaboration framework in WP3, as we hoped that some of these tools could turn into possible areas of joint work between the Labs. From the above list the following tools were selected as the most appealing ones: SDG Impact Assessment Tool, the ISO 26000 Social Responsibility, the Societal Readiness Level Thinking Tool and the Compass Self-Check Tool.

1.4 Survey designed to further elucidate the needs for collaboration of the Labs

During the Lab Managers meeting conducted on November 17th a survey was conducted to further assess the needs of the Labs. The results are not 100% quantitatively reliable because the Labs were represented by different numbers, ranging from 1 to 3 members, however they give a good approximation of the Labs expectations about duration, form and specific areas of the envisioned collaboration. According to the results of the survey, it became clear that Lab managers wish for joint work in WP3 with 1) a duration of between two and four hours in total per month 2) in the form of structured workshops, where 3) they would have the opportunity to reflect and experiment in 4) a variety of topics according their specific needs (most voted RRI areas were “Anticipation and assessment of social effects of innovations“ and „Stakeholder engagement, third party networks, multipliers“).

With regard to the RRI Tools mentioned in 1.4, it turned out that the Labs are not ready to work together on any of the offered RRI tools.

Fig. 2 Interest on collaboration on RRI Tools

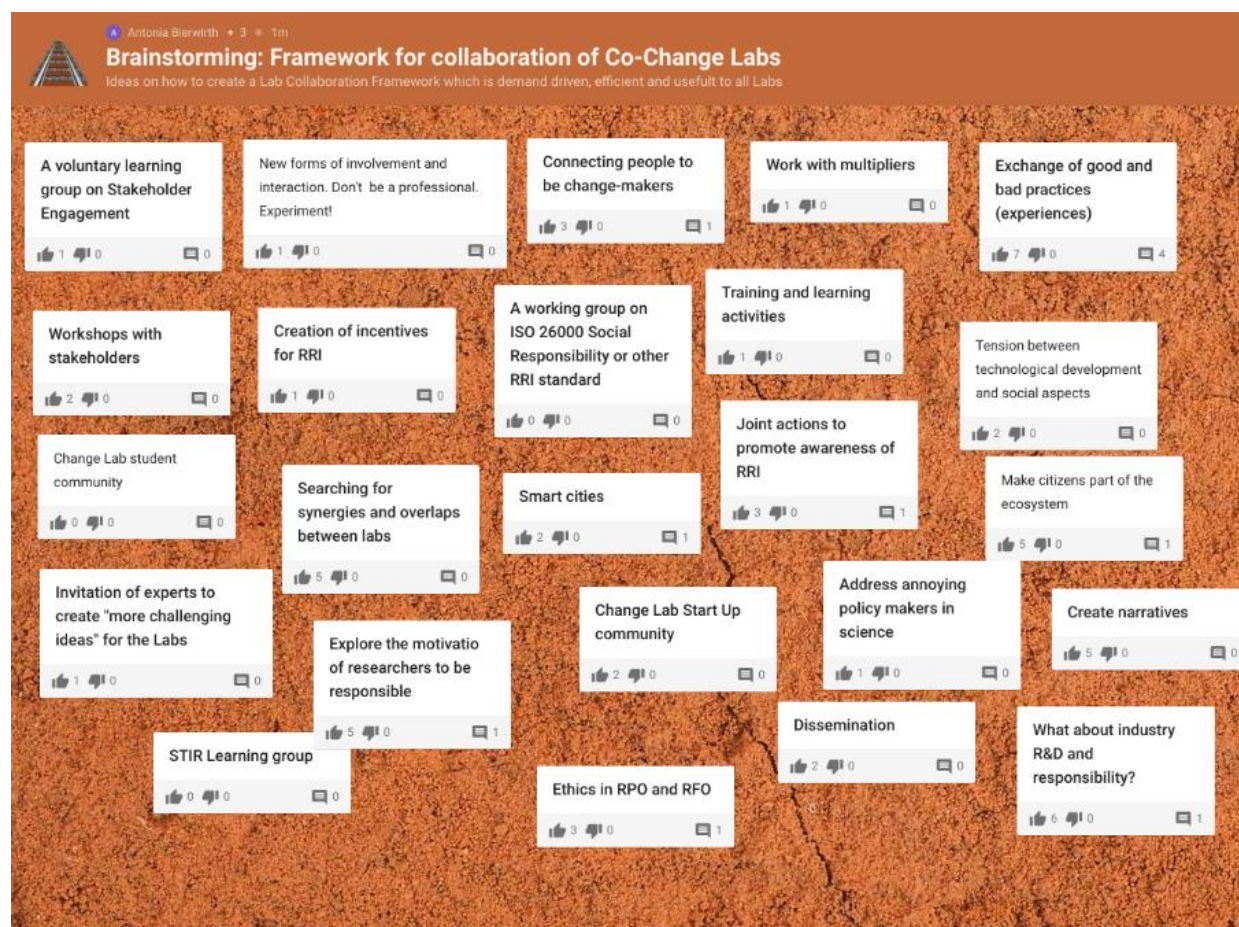


1.5 Brainstorming provided a set of various potential ideas for joint work

During the monthly Lab coordination meeting managers were asked to brainstorm on the collaboration framework they were envisioning. All the ideas were noted down without criticism and the buzzwords selected from the interview analysis mentioned in 1.1 were added to the board too. In order to open up possibilities and resolve incorrect assumptions about the existing limits, participants were encouraged to think about visions without worrying about restrictions. At the end of the session participants were asked to evaluate ideas and vote. As a result, the most liked suggestions are:

- 1) Exchange of good and bad practices (experiences)
- 2) What about industry R&D and industry?
- 3) Searching for synergies and overlaps between the Labs
- 4) Create narratives
- 5) Explore the motivation of researchers to be responsible

Fig.3 Outcome of the brainstorming on collaboration of Labs



2. Building the frame

It was agreed with the project coordinator and the WP leaders that at the current stage of evaluation we have enough information about what Lab Managers need or at least their perception about their needs in terms of collaboration in WP3. In WP3 our ambition is to keep the teamwork vibrant and attractive and this could be done only if this framework context remains flexible and demand driven. We should not forget that **Labs are first of all experimental and follow network-oriented organizing principles; they do not have a project-based nature**. Thus, we will prototype and test in an iterative way many variations in order to achieve optimum results. We also call Lab leaders “*managers*”, but in reality, they represent a new breed and “*they’re not simply scientists or academics, and neither are they activists or entrepreneurs*” (Hassan, 2014). In this context, D3.1 is a document which tells a story rather than places a frame. The main audience of this document are the Lab managers; they will provide all necessary insights and participate as protagonists in the co-creative iterative process.

To this point and considering all requirements explained in the previous section, it can be summarized that collaboration framework aims to achieve the following objectives:

- 1) Provide a space for joint learning and exchange of experiences, preferably in the form of short structured workshops
- 2) Identify synergies and overlaps between the Labs and pave the road for possible clusters and alliances
- 3) Assist the Labs in the implementation of their roadmaps and guide them to long-term sustainability

A further consideration to be added here, is that the three-day Socio-Technical Integration Research (STIR) training with Erik Fisher, a member of the Co-Change project's Advisory Board, was perceived by the Lab Managers as a useful reflection tool. Within WP3 a virtual meeting between the coordinator, Tecnalia and Erik Fisher was organized on November 23rd and it was decided that the STIR methodology, and especially its first element, the STIR decision protocol, could be used to fulfill objective 1 "Provide a space for joint learning and exchange of experiences, preferably in the form of structured workshops". Just as a reminder, the STIR protocol is a valuable decision-making instrument that reveals the contextual dimensions of expert choices as they are being made. It is derived from a model that is itself informed by several social scientific and philosophical frameworks and that was developed and refined through three years of empirical study and with the collaboration of an engineering laboratory (Fisher, 2007). The instrument breaks decisions down into four components: Opportunities, considerations, alternative, outcomes.

Fig. 4 STIR Decision Protocol

OPPORTUNITIES

Perceived status of affairs
eliciting a response

CONSIDERATIONS

Selection criteria that potentially
mediate the response

OUTCOMES

Anticipated effects and
meaning of a given response

ALTERNATIVES

Perceived available courses of
action for responding

Source: Fisher (2007)

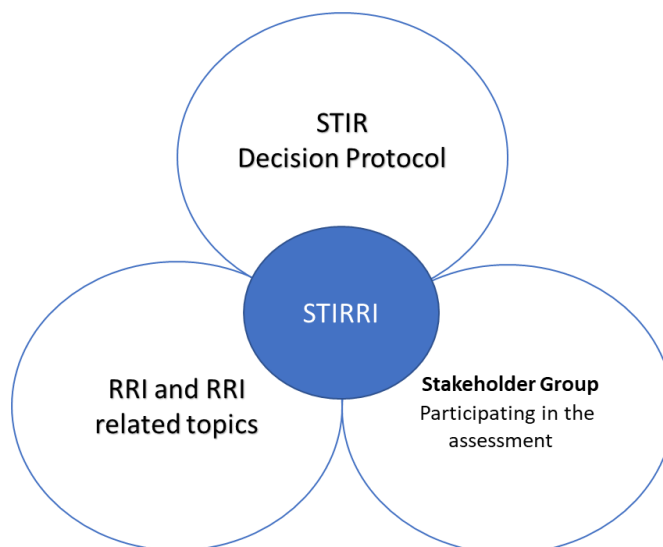
STIR treats decisions as the units of analysis for documenting, probing and assessing whether and how experts as human agents can, do, could and should consider and respond to a variety of contextual dimensions (Fisher 2020).

3. Objectives

The outcome of the analysis described above is a collaboration method called "STIRRI", which focuses on three main elements: 1) the STIR decision protocol, 2) the

process and product dimensions of the RRI framework and 3) a structured dialogue with a diverse group of stakeholders.

Fig. 5 Main elements of STIRRI



Our STIRRI approach has the following objectives and ambitions:

- 1) Test the **STIR decision protocol** in field of RRI and specify its questions
- 2) Improve and structure the existing **Social Lab Methodology** in the field of RRI
- 3) Set up a hands-on “**coaching program**” for RRI by tapping on the collective intelligence of participants
- 4) **Open** the decision-making processes of the Labs to reveal their contextual dimensions
- 5) **Build legitimacy** of the Labs through transparency and iterative collective (re)framing
- 6) **Experiment and explore** different paths in RRI to prepare Labs to tackle real-world issues
- 7) Establish a **scalable and transferable method** for collaboration that could be easily applied in other projects and organizational contexts

The STIRRI method created in WP3 is designed to be complementary to the three Forums. Both work on different scales with different approaches:

- STIRRI breaks down the roadmap objectives into small steps (microscope perspective), while the Forums give continuity in the “big macroscopic picture” of the project;
- STIRRI guides and improves practices close to the actor/researcher at the (human) scale of individuals and teams. The Forum works on a stakeholder level;

- STIRRI is used to remove barriers and guide gradual progress of the Labs, while the Forum is a multiuse collaboration approach designed to bring together different ideas at stake;
- STIRRI focuses on the opportunities selected by Labs, while the Forum deals with larger (human) scales (societal challenges /SDGs) chosen by the organizers;
- STIRRI involves a small group of stakeholders and has a structured discussion protocol, while the Forum involves a broad group of stakeholders and its agenda varies.

4. Theoretical compliance

Transformative capacity encompasses the collective ability of all actors in an innovation ecosystem to be aware of, prepare for, initiate and actually perform change at organizational and systemic levels, thus enabling socially responsible future development.¹ The transformative capacity framework identifies ten interdependent “capacities” which can serve as guidelines.

Below is described how the proposed STIRRI method fits the transformative guidelines elaborated in Task 2.1.

Theoretical requirements of TC	How STIRRI fits
Inclusive and multiform governance (TC1) requires: a) wide participation and active inclusion of stakeholders from all sectors, b) diversity of governance modes and actor networks (de-/centralized, formal/informal, multi-level, etc.), and c) sustained and effective intermediary organizations and individuals between sectors and domains (hybrids).	The STIR (Socio-Technical Integration Research) approach is designed to structure interactions in on-going research and development activities. The STIRRI (STIR+RRI) enhances it by converting the socio-technical interaction into a multi stakeholder collaboration for joint reflection, assessment and monitoring of RRI activities.

¹ Wolfram, M. (2016) Conceptualizing Urban Transformative Capacity: A Framework for Research and Policy. Cities 51: 121-130.
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Theoretical requirements of TC	How STIRRI fits
<p>Transformative leadership (TC2) demands specific forms and attributes of leadership which needs to be polycentric and socially embedded, arising not only from (scientific) experts and elites, but also from other issue-driven and/or place-based initiatives in society. It emphasizes the importance of concrete topics and places as a fundamental starting point for planning and development.</p>	<p>The Labs development is managed by the Managers and their Lab Teams. The STIRRI approach guides the Labs by asking them periodically to identify and present a specific challenge/opportunity from their roadmaps. TC2 corresponds to the first quadrant “<u>Opportunity</u>” of the STIR protocol: What are you doing? What are you working on? What factors or conditions helped open up and/or close down this opportunity? The roadmaps reflect the formal, scientific vision of the Labs, but, following the STIR protocol, the challenges may take the form of an issue, a problem, or any occasion or situation that calls for a response.</p>
<p>Empowered and autonomous (TC3) communities of practice require association, coalition forming, shared access to resources and conditions of autonomy.</p>	<p>Each Lab acts as an autonomous community. These autonomous communities will grow and gradually gain trust, empowerment and legitimacy through the support of their colleagues from the other Labs. Through the STIRRI debates, Labs have the chance to identify common issues and solutions and to form coalitions and associations to address them jointly.</p> <p>As a group of people facing similar challenges and tasks and helping each other to overcome barriers and make solutions happen. They do so in the sense of peer-learning in the Lab together with ecosystem stakeholders as well as across the Labs - in the Forums, but also in the exercises in the context of the Lab coordination meetings.</p>
<p>System(s) awareness and memory (TC4) Transformative change presupposes awareness and understanding among stakeholders of the system dynamics and path dependencies that influence (including undermining) sustainability. Collective analysis capabilities and routines thus need to be developed to foreground linkages between culture, structures and practices in different Labs. It creates beyond a system baseline to identify critical barriers and enablers.</p>	<p>TC4 is mainly reflected in the second STIR protocol quadrant, “<u>Considerations</u>”. According to Fisher (2020), considerations can be thought of as system conditions that mediate (enable and constrain) and are mediated by human agency. Chief among these are human and social values that underlie commitments, practices, and interests. Problem statements can frame some values as more ethical, rational, desirable or otherwise more valid than others. This part of the STIRRI reflection tries to understand what human (cognitive, emotive, conative), social (group expectations and behaviours, institutional structures, cultural norms, historical context), and material (physical, temporal, spatial, financial) considerations are taken into account (Fisher 2020). The whole decision-making protocol is based on institutional self-assessment as it considers the structures, rules, contexts,</p>

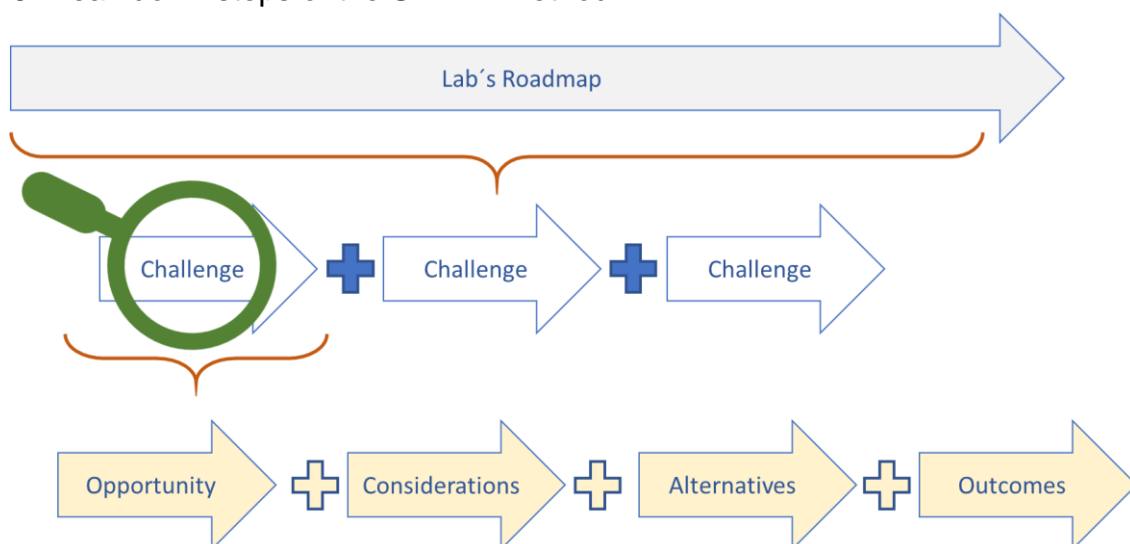
Theoretical requirements of TC	How STIRRI fits
	axioms etc. of each Lab and its perception of all these.
<p>Foresight (TC5) deals with pathways linked to long term sustainability that require open and realistic dialogue, clarification and negotiation among stakeholders. Foresight creates alternative scenarios based on system thinking.</p>	<p>TC5 is addressed in the third and the fourth STIR protocol quadrants, “<u>Alternatives</u>” and “<u>Outcomes</u>”. According to Fisher (2020), alternatives are the perceived courses of action available for responding to the opportunity. The questions in the Outcomes section are meant to exercise anticipatory capacity, and they often trigger new reflections on considerations, on the problem/opportunity framing, and on alternative. The focus is initially on short term expectations and through the iterative process more long-term perspective is added. Questions like “Who in the future might care about what you do now and why you do it?” increase contextual awareness and reflexivity (also linking to TC4).</p>
<p>Community-based experimentation (TC6) is a crucial mechanism to develop transformative knowledge and catalyse social learning. It should be practical and embedded in the R&I context.</p>	<p>The STIRRI approach is a concept building upon the existing Social Lab practices, the reflective STIR method and the RRI principles. By bringing these three elements together it creates a framework for an ambitious community-based experiment that will be improved and tested in WP3 of the Co-Change project.</p>
<p>Innovation embedding and coupling (TC7) All components of the framework pre-suppose that stakeholders share and/or enable access to basic resources for developing capacity. This is facilitated by gradually removing barriers to innovative practices and embedding them in routines, organizations, plans and regulatory frameworks, to effectively enable uptake and mainstreaming.</p>	<p>The STIRRI approach is a framework that simulates real ecosystem environment as the Lab managers act as leaders when presenting an opportunity but also as stakeholders and experts when discussing the opportunities of the other Labs. Each STIRRI workshop introduces a different RRI topic facilitating in this way gradual learning and removing of barriers. Though the iteration of consecutive cycles, a spiral effect will be achieved in which the conversation progressively moves from “research/Lab values” to “public values.” The STIRRI method explores the reproducibility and generalizability of a novel set of techniques for Social Labs coaching and collaboration in the area of RRI.</p>
<p>Reflexivity and social learning (TC8) imply to develop skills for applying intervention and assessment methods, to create diverse formal and informal reflexivity formats that critically question progress towards the vision, and to systematically manage new transformational knowledge created.</p>	<p>STIRRI is a collaborative decision-making protocol designed to reveal the contextual dimensions of Lab decisions in real-time. It works as a real-life simulator (Lab Managers test their decisions in multi-stakeholder environment) and but also as a micro-scale reflection, where Lab Managers build meso- and macro-scale capacities to become leaders in more reflexive and responsive institutions.</p>

Theoretical requirements of TC	How STIRRI fits
Working across agency levels (TC9) means that capacity development needs to occur at different agency levels simultaneously, addressing individuals, groups, organizations, networks, ecosystems as well as society at large.	STIRRI intends to bridge the gap between the public, the political, and the scientific by raising awareness and reflectivity about the connections between these three elements. As different agencies are likely to have different outlooks and ways of approaching problems, the STIRRI methods brings them together in a semi-formal environment. However, it is unobstructive, works over long periods of time and allows the stories and the complexity to unfold without putting pressure. It seeks soft intervention, since any changes should be implemented voluntarily by the Lab Managers.

5. STIRRI Procedural description

As building transformative capacity and leadership is a complex and multi-layered process, in our approach we break down the visions of the Labs into small and more manageable tasks or “challenges”, which may take the form of an issue, a problem, or any occasion or situation that calls for a response. These challenges are further decomposed and explored by four elements of the STIR protocol.

Fig. 6 Break down steps of the STIRRI method

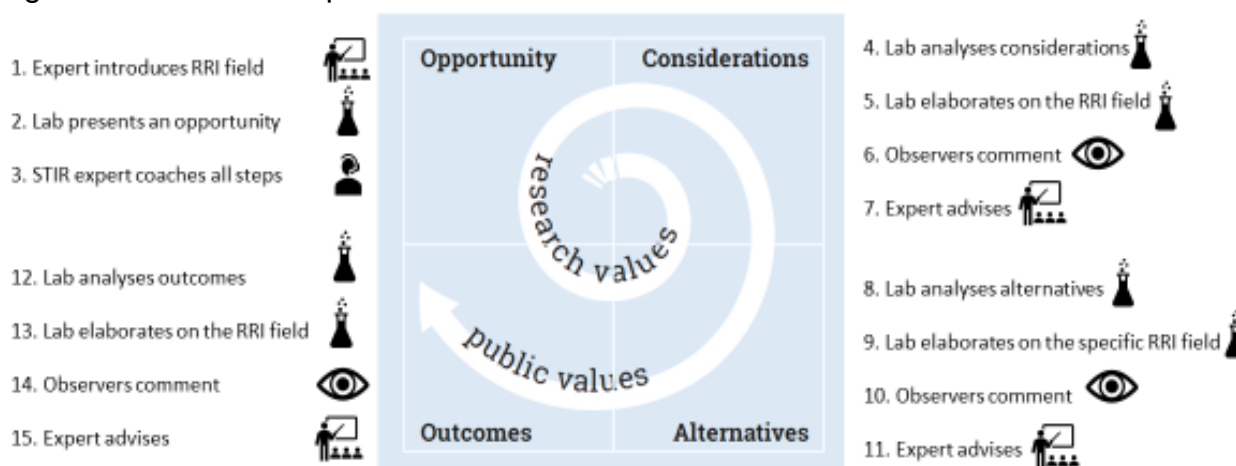


The collaboration will start with regular workshops dedicated to specific RRI areas. Each workshop will be prepared in collaboration with Erik Fisher, WP3 Coordinators and an expert in the RRI area. The objective of this preparatory stage is to adapt the STIR questions to the specific RRI topic and to see where are the possible “touch points” between both. As mentioned before, we will continuously evaluate and improve the method in an iterative way in order to achieve optimum results.

The expert in the RRI area will ideally participate as a “guest speaker” and will open the session with a short overview including theoretical, strategic, political considerations, current challenges and limitations of the field, use cases and possible solutions. All partners from Co-Change will take turns in providing the RRI experts, according to their size and capacity. A list of available experts and their corresponding areas of expertise will be created to facilitate this task. The RRI expert will be the “scientific responsible” for the session, supervising all contents and adapted STIR questions.

Labs will be invited to identify and present a specific challenge/opportunity of their roadmap. Erik Fisher will act as a coach, guiding the presenters of the Lab thorough the different questions of the STIRRI methodology, while the rest of the participants will have the role of observers, having the chance to comment and ask questions in specific moments. The RRI expert will summarize conclusions, adding technical suggestions and advise at the end of each STIR area.

Fig. 7 STIRRI Workshops structure



Source: Adapted from Fisher (2020)

In each workshop a new RRI topic will be elaborated, covering upon demand the “classical” RRI product and process dimensions, but also related concepts will be explored. The exploration of new RRI views will reflect the dynamic nature of the social needs and will teach the Labs to stay responsive and to build their adaptive capacity to react to changes.

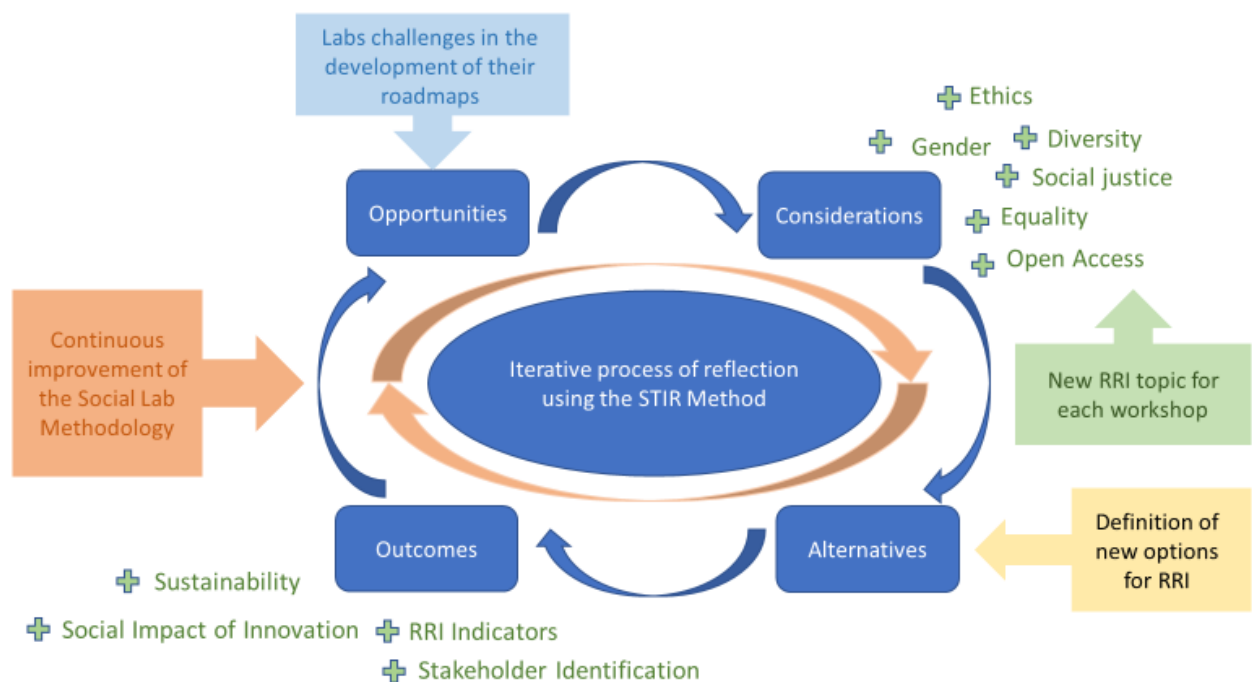
Each workshop will have a duration around two and a half hours. In this timeslot there can be up to three Labs participating as presenters. Labs will be encouraged to participate in all workshops, either as presenters or as observers in order to learn from each other and to be involved in the development of the roadmaps of the others. While the roadmaps reflect the formal, scientific vision of the Labs, the challenges may take the form of an issue, a problem, or any occasion or situation that calls for a response.

The STIRRI approach is a framework that simulates a real ecosystem environment as the Lab managers act as leaders when presenting an opportunity but also as stakeholders and experts when discussing the opportunities of the other Labs. Labs

will grow and gradually gain trust, empowerment and legitimacy through the support of their colleagues from the other Labs. They also learn to open their innovation processes and to discuss their decision-making processes in a multi-stakeholder group, which is a key step in RRI. In the STIRRI debates, Labs have the chance to identify common issues and solutions and to form coalitions and associations to address them jointly.

Through the continuous involvement of RRI experts from different organizations and backgrounds, the proposed STIRRI approach will draw upon the wisdom of the Co-Change partners and their networks. Through the iteration of consecutive cycles over the next two years, a spiral effect will be achieved in which the conversations will progressively move from “research/Lab values” to “public values.” This shift of mind will be important for the development of the sustainability plans (T3.4) and for the impact on the Labs’ innovation ecosystems.

Fig. 8 Collaboration framework



6. Next steps

The methodology will be refined over time after it is tested, and feedback is obtained by the Lab Leaders and the rest of the participants. The STIRRI method will be offered for testing to the winners of the Call for innovative RRI practices in Task 3.4. The results will help us prepare the instrument for scaling up and transferring it to further contexts. The continuous improvements, as well as the reports from the STIRRI workshops will be part of the D3.3 Report on change labs.

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