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Project Acronym: TetRRIS

Project title: Territorial Responsible Research and Innovation and Smart Specialization

Periodic Technical Report

Part B

Period covered by the report: from 1.9.2020 to 30.11.2021

Periodic report: 1st

1. Explanation of the work carried out by the beneficiaries and overview of the progress

TetRRIS overarching objective is threefold. First, it aims at supporting four European pilot territories – the Tampere Region in Finland, Karlsruhe Technology Region in Germany, Autonomous Community of Cantabria in Spain, and the Szeged-Timisoara Region in Hungary and Romania – to systematically integrate RRI practices into their territorial innovation systems and development approaches, and thereby embed value-driven transformation. Second, the project promotes mutual learning and interaction between territories, and, thirdly, it develops tools for good practices and policy recommendations that can be used to integrate RRI in the regional development in other European territories.

In TetRRIS we use terms “territory” and “region” usually interchangeably and define them loosely as an area of country with definable characteristics and identity like municipalities and provinces. Sometimes also term “local” is used similarly.

The TetRRIS project concentrates on unlocking the capacities of regional actors to explore, assess and address unanswered questions related to innovation in territories, while advancing development, raising awareness and contributing to decision making based on scientific information.

To identify opportunities for enhancing collaboration between actors for value-driven transformation and the uptake of RRI thought and practice, each region has mapped territorial actors and assessed patterns of R&D&I interactions. This work improved understanding of regional R&D&I dynamics and provided a firm basis for work, and support identification of the issues to be addressed in embedding RRI in regional pilot contexts. The mapping exercise was systematically performed with the help of an analytical framework, which was designed in the beginning of the project.

One of the starting points of TetRRIS was to put regional actors’ concerns at the centre of research agenda. This fundamental objective was achieved with an intensive interview process in which the pilot regions with the help of research partners carried out stakeholder interviews. Collecting this tacit information was highly important to match the regional pilot actions to regional actors’ questions and challenges that were further elaborated in the first regional workshops in the spring-autumn 2021.

The mapping exercise and stakeholder interviews revealed that RRI as a concept is practically unknown in all the regions. RRI discourses based on and articulated in the terminology formally defined by the European Commission remain rare. Regardless of the unfamiliar concept of RRI, many "de facto RRI" activities are found in each of the regions. These activities include, for example, different types of innovation co-creation practices, engagement and inclusion of stakeholders and the broader public, and promotion of ethics and sustainability. The RRI in businesses resonate in terms such as 'science-industry collaboration', 'corporate social responsibility' and/or 'public stakeholder consultation'. In addition, in this environment an

uptake of RRI demand regulatory incentives since being responsible requires additional investments (financial and cognitive).

Based on the interviews and meetings with regional actors, it is acknowledged that it is important to engage closely with the local actors and to identify areas where RRI may make tangible contributions. In this manner, responsible research and innovation becomes interpreted in language and situated in actions the actors are familiar with - thus bridging cognitive gaps and creating space for diverse, locally and contextually based definitions of responsibility to emerge. As in many pilot regions a good bit of de facto RRI is already ongoing, the most promising strategy for pilot actions has been to try to build on ongoing local interests and activities.

The RRI capacity building of local pilot actors has started in the regions but embedding RRI into territorial agendas will largely materialise in the second half of the TetRRIS project. The basis for full exploitation of RRI builds through engaging regional stakeholders that has been the main objective of the first half of the project. The pilot regions and research teams have reached a mutual understanding with regional stakeholders and defined a common agenda of intervention and related activities. The regional intervention plans guiding the local RRI actions are ready for implementation. Good practices, new solutions and key learnings will be documented to give guidance on how to replicate such efforts in subsequent activities and in other regional contexts.

The intervention plans will guide how to further strengthen and deepen RRI-related interest and activities via new pilot actions in each pilot region. These plans build on analysis of the dynamics, challenges and opportunities of each regional innovation ecosystem in terms of responsible research and innovation as well as sustainability. The regional pilots help to develop context specific solutions to overcome identified challenges and strengthen opportunities in collaboration with the regional partners.

Some regions, like Tampere, have identified interesting ongoing territorial R&I projects which will greatly benefit from implementation of the TetRRIS activities. While activities, which will be started during project can suffer slower implementation. Cantabria emphasises co-developing and follows the Social Lab approach to develop pilot activities with the regional research and innovation system stakeholders. They will implement a series of participatory workshops to engage stakeholders. Like Cantabria, Karlsruhe focuses on citizen and stakeholder engagement and aims to create a new practitioner network to improve public engagement (participation) processes and open R&D&I dialogue in the region. In turn, Szeged-Timisoara pilot as a "learning pilot" focuses on deriving useful lessons and inspirations from the other pilot regions to stimulate first steps towards integrating RRI into the local development and innovation processes.

The territorial RRI stakeholders have been engaged in the dialogues and all pilots have created action plans for key territorial actors. In addition, mutual learning processes between pilot regions have been initiated already. For instance, Karlsruhe and Tampere have identified mutual interests in RRI and regional governance. Both pilots have set up an intensified dialogue and exchange between regional policy-makers as key intervention.

The pilot regions are in different phases in their RRI journeys. Some regions need heavy awareness raising activities to plant the seeds of RRI (Szeged-Timisoara), while other regions focus on integrating RRI into regional activities and strengthening already-existing elements of de-facto RRI to further institutionalise the practice of RRI in the region (Tampere, Karlsruhe, Cantabria). Both approaches are needed and important, since change will not happen without people understanding why responsibility and sustainability are important to address in their processes and activities. In fact, envisaged institutional change in the regions focus largely on the public engagement. In this dimension, we already have good results in Tampere's regional strategy process. Moreover, many initiatives, like RRI guidelines and multi-stakeholder workshops in Cantabria and strengthening and improving processes and practices of public engagement in Karlsruhe by setting up a practitioner network aim to create sustainable change in the local contexts and involved institutions.

Co-creation is at the core of the RRI approach, and several interventions in the regions are dedicated to co-developing. RRI demands true and open dialogue with regional stakeholders that many of the pilots have emphasised in their intervention plans.

1.1 Objectives

In the following, we describe the work carried out during the reporting period towards the achievement of each objective.

(1) Map territorial actors, analytically describe patterns of interaction, and identify opportunities for enhancing collaboration between actors for value-driven transformation and the uptake of RRI thought and practice.

- The first steps in the TetRRIS project involved creating a conceptual framework and an analytical toolbox (“mapping tool”) to ensure a common understanding of RRI and of Regional Innovation Systems (RIS) within the TetRRIS consortium. These tools are needed to guide the subsequent analytical and practical work, and begin developing a language to “translate” the concerns of RRI into terms that non-academic, practice-focused actors and stakeholders in the pilot territories would find easy to understand. This conceptual framework and toolbox were laid out in Deliverable D2.1.
- Conceptually, a key task for the TetRRIS project was to integrate the distinct perspectives and theoretical discourses of RRI and Regional Innovation Systems (RIS). While the objectives of the TetRRIS project (integrating RRI into regional/territorial innovation and development systems and policy) require drawing from the two theoretical traditions of RRI and RIS, in fact, these two traditions and policy discourses have largely evolved separately. They constitute distinct academic and practitioner communities with, hitherto, limited exchange between them. Mostly, they have addressed different policy questions and institutional complexes (regional development, often with a strong “economic” slant, and focused on local governments, business networks and local education, training and research institutions [RIS], vs. governance of basic science and radically new technology breakthroughs, often with a strong “ethics” slant, and focused on national, European and international scientific institutions

[RRI]). Integrating these two perspectives and, especially, making RRI relevant and comprehensible to practice-focused regional actors in the pilot territories (i.e., local officials, businesspeople, staff from intermediary organisations etc.), who are much more familiar with RIS-discourses was therefore a key task for the TetRRIS project.

- The “mapping tool” that was developed for this analysis consists of two lengthy questionnaires (47 questions in total) and guidelines for their use. The first questionnaire addressed the macro or system-level; the second, the project or organisational/company level. Given the heterogeneity of the territories in the TetRRIS project and to make the tool useful also beyond the project itself, the questions were framed at a relatively high level of generality, and the tool was designed to be agnostic with respect to who answered them. It can be used both as a basis for interviews, or as a set of analytical pointers to guide desk and documentary research by scholars and practitioners.
- The objective of this “mapping” was to help consortium members with two interrelated tasks. Firstly, to analyse systematically how their territory’s local innovation system functioned, who the actors, initiatives and projects with relevance to TetRRIS were, what needs, interests and challenges these actors might have where the better practice of RRI might make a tangible difference, as well as what the level of (de-facto) RRI already practiced in the territory was. Secondly, it was to provide consortium members with an informational basis for identifying possible areas for pilot actions in the subsequent stages of the TetRRIS Project (i.e., WP 3 and WP 4).
- Using this conceptual framework and analytical tool, the TetRRIS partners then undertook a “mapping” of each pilot territory. For this, the partners interviewed regional actors (e.g., managers from local innovation projects, company executives, local government officials, and officers from intermediary organisations) and analysed relevant documents (e.g., regional development plans, project websites, reports and proposals, etc.). The results of the mapping were set down in a “mapping report” for each territory (Deliverable D2.2).
- On this basis, in the subsequent stages of the project, the TetRRIS partners identified opportunities for strengthening the uptake of RRI in each pilot territory, as well as the challenges greater uptake of RRI faced. Concretely, partners sought to identify practical needs, interests and challenges facing the regional actors, where RRI might help provide actors with tangible solutions to help them better accomplish their objectives – thus giving the regional actors concrete incentive to engage with the TetRRIS project and participate in appropriately designed pilot actions. This approach (foregrounding the needs and interests of the local actors and focusing on how RRI might provide solutions for them) was chosen because durable uptake of RRI by regional actors will ultimately depend on their willingness to think and act in “RRI-style” – which in turn will depend on whether actors find RRI useful for their practical goals. For example, in the Karlsruhe Technology Region, improving processes for public and stakeholder engagement/participation was ultimately identified as a key need and point of interest of the local actors that has high RRI-relevance.

Table 1: Interviews conducted in the pilot territories during the mapping

Pilot territories	Number of interviews
Cantabria	16
Karlsruhe Technology Region	10
Tampere region	12
Szeged Timisoara	10
Total	48

(2) Put regional actors' concerns at the centre of the research agenda by developing pilot projects that give answers to regional actors' questions.

First, the project consortium has been assembled so that regional actors are project partners bringing in directly the regional actors concerns and interest in the project design and conduct in all the stages.

Second, as described above (under (1)), a central objective of the “mapping” (as well as of the subsequent scoping workshops and meetings with local actors [D3.1 and D3.2]) was to identify regional actors' concerns (needs, challenges), then to design pilot actions matching these needs; partly by building on ongoing activities, partly by designing completely new actions. To do this, numerous meetings and one-to-one discussions with local actors were held in each pilot territory (see Table 2). The numerous meetings and discussions within the consortium (among the TetRRIS project teams of the regional partners and research partners) as well as the research interviews (Table 1) have not been counted in here.

One interesting and unanticipated development in the project has been the importance of small-group meetings and one-on-one discussions with local actors, compared to larger “workshop”-type meetings with many actors. The early work packages (WP 2 and WP 3) of TetRRIS involved introducing local actors without prior connections to TetRRIS or RRI to the project. The project partners have found that small-group meetings and bilateral conversations were a more congenial format for doing this and “winning” the actor's support and interest in the project than large meetings. While less “efficient” than big meetings, small-group and one-on-one sessions hold several advantages: they are more intimate, making it easier to create a trust relationship, and there is more time and opportunity to understand and engage with the particular interests and concerns of each local actor. Covid-19 restrictions on in-person meetings also played into this, since video conferencing with large groups is often experienced as a particularly taxing mode of interaction, where it is relatively hard to create trust and intimacy (and simple interest and engagement).

Table 2: Meetings and one-to-one discussions conducted in the pilot territories with local actors to identify and design pilot actions

Pilot territories	Number of meetings (>~5 participants outside the project consortium) with local actors	Number of smaller meetings (<5 participants outside the project consortium) with local actors	Number of one-to-one discussions with local actors outside the project consortium
Cantabria	3	6	16
Karlsruhe Technology Region	2	6	28
Tampere region	3	16	10
Szeged Timisoara	2	4	8
Total	10	32	62

(3) Advance the state of the art in territorial R&I projects by building on the capacities of local actors and their insights and embedding RRI into territorial agendas.

The pilot actions have been constructed based on the identified regional needs to increase the sustainability and responsibility awareness of multiple local actors. The regional pilot actions have been designed to increase the regional presence of RRI by linking the TetRRIS pilot activities to existing territorial agendas and processes, and local actors' needs and interests. As much as possible, the pilot actions are being designed with a view to making them sustainable beyond the duration of the TetRRIS project. Specifically, we have sought to give local actors as much ownership of the pilot activities as possible and try to involve them deeply in the design of the pilot actions, so that – ideally – the actions will continue after the end of the project.

The regional pilot actions include e.g., the following related actions (while variety of actions are taking place in all the pilots, some concrete examples are mentioned in the brackets):

- Developing new organisational structures to strengthen and improve local actors' engagement with RRI-related issues (e.g. building up a network for practitioners to deepen their understanding of how to conduct meaningful public participation exercises and learn new participation methods in Karlsruhe; strengthening stakeholder participation in Cantabria).
- Exchanges in the form of workshops and visits between local actors in the different regions around RRI-related themes to promote mutual learning (e.g.,

currently under preparation between with Karlsruhe and Szeged-Timisoara in which anticipated focus is developing initiatives and regional identification across national borders, and between Karlsruhe and Tampere in which anticipated focus is how to design and implement inclusive regional development strategies, and how to strengthen mission orientation and sustainability focus in local policy).

- Bridging cognitive gaps by translating RRI discourses into a language and set of practices that is accessible and meaningful to regional policy makers and stakeholders (e.g. in Tampere with the manufacturing industry).
- Fostering linkages between regional authorities and RRI-relevant stakeholder groups in their region which have been previously under-represented (e.g. between students, manufacturing industry and regional authorities in Tampere).
- Building RRI-related competences among regional actors (especially Szeged-Timisoara as a learning region and Cantabria).
- Connecting regional actors to the more practical side of the RRI debate at the national and European levels, providing them with concrete inspiration for future strategies and actions (e.g. above mentioned regional pilot related exchanges).
- Building RRI-related competences among regional actors (it has been a concrete requirement in all the pilot regions to provide new conceptual frameworks and develop ideas on how to advance e.g. engagement and diversity in practice).
- Increasing the dialogue between traditional innovation ecosystem and other innovation actors to build awareness of socially sustainability and responsible RDI matters in the region (e.g. manufacturing industry in the Tampere region and Cantabria innovation ecosystem).
- Involving and engaging R&I stakeholders from different domains to discuss and identify actions needed in terms of responsibility (e.g. in Cantabria territory gathering various stakeholders, research lines, collectives, societal concerns and expectations into specific forums and debates that can inform, assess and guide smart specialization strategies under the RRI lenses).
- Ensuring that the RRI dimensions are more visible in regional development and regional strategies (e.g. involvement in Tampere region's regional strategy process).
- Starting the conversation on RRI and teaching local stakeholders the importance of incorporating RRI in the region (e.g. Szeged-Timisoara region as a "learning region").

(4) Develop methods, tools and insights that enable to easily scale-up and replicate pilot projects, thus opening research and innovation to regional actors.

The TetRRIS project has developed a road mapping model to help the projects' regional actors embed RRI practices into their pilot actions. This model assesses the drivers, challenges, risks and barriers, helping to prioritise and develop actions that meet these criteria.

Methods, tools and insights emerging from pilot projects so far:

- A responsibility questionnaire and responsibility guidelines for workshop facilitation were created and tested in a regional stakeholder engagement event Ekothon II as a part of the regional pilot action in Tampere region. The questionnaire will be shared for the use of other pilot actions and beyond.
- RRI Round table initiative is a pilot action in the Tampere region that connects projects that address responsibility and sustainability issues in the region. The goal of the initiative is to transfer information and knowledge between RRI experts in the region. The initiative can be replicated for further use.
- One of the main pilot actions in the Karlsruhe Technology Region is to build a network “of practitioners – for practitioners” who conduct public and stakeholder engagement/participation processes (either as consultants, or as “users” of participation processes in their innovation/development projects). The network can be directly scaled (expanded) or replicated elsewhere.
- A further pilot action of Karlsruhe and Tampere is to set up an exchange between local actors on RRI-related issues. This is being designed to be replicable (e.g. further exchanges between these two territories and others; exchanges between other territories).
- As the main target of the Szeged-Timisoara region is to increase awareness of RRI in the region, a key pilot action in the region is the RRI training that helps stakeholders contextualise and incorporate RRI principles. This training will be held multiple times in the region and can be made replicable for further use.
- Another key pilot action for the Szeged-Timisoara region (which can also be adapted and used in other regions) is the RRI material distribution, including infographics, animations, and leaflets.
- Social Lab (SL) method application is the main action in Cantabria. The Cantabria Social Lab is following SL methodology during the pilot implementation phase. SL is a container of social experiments for addressing complex ground-breaking social challenges on a systemic level, consisting of a team, a process and space(s) supporting social innovation and experimentation¹. Actors of the regional innovation ecosystem are being mobilized to adopt this approach and values of participation and encouraged to embrace different needs, expectations and concerns that Cantabrian society have about R&I in the territory.

The regional pilot projects are still under execution and more methods, tools and insights are expected to be developed as the pilot projects proceed.

¹ Hassan, Z. (2014). The social labs revolution : a new approach to solving our most complex challenges. San Francisco: Berret-Koehler Publishers

(5) Address ethical challenges that often constrain territorial R&I projects by designing innovative approaches to promoting regional actor-led governance of science, including its evaluation.

The TetRRIS project is targeted to design and find innovative approaches that build bridges between ethical challenges and regional governance of R&D in promoting ethics and sustainability in the regions, including strong stakeholder engagement approach. The regional pilot actions offer “testbeds” for this work.

Approaches emerging from the pilot projects:

- Bringing ethics as part of regional strategy, which is mirrored in regional R&D projects (e.g. in Cantabria and in Tampere).
- Promoting ethics and sustainability through industrial RDI ecosystem through which the RRI themes will be integrated into industrial RDI practices (e.g. the Karlsruhe pilot aiming to social sustainability of transport).
- Bringing ethics and sustainability approaches as a part of regional challenge-focused stakeholder events like e.g.:
 - (1) Partnering with Tampere higher education community’s Sprint Innovation festival, where students are engaged to solve a challenge related to the sustainable future of the manufacturing industry in the Tampere region. (2) Partnering with regional stakeholder engagement event Ekothon II where a responsibility questionnaire, designed by the Tampere pilot, is integrated as a part of the two-day co-creation process reaching multiple regional actors and their future action plans.
 - Gathering and engaging different regional R&I stakeholders in Cantabria (Bioeconomy, health and post-Covid-19 society, Blue Economy and Fair Energy Transition, Responsible Industry 4.0 and Territorial Sustainability and Responsibility) to work on actions to integrate RRI along the lines of regionally specific challenges.
- Supporting local industries in managing their sustainability transition (e.g. the Corporate Responsibility Accelerator Hub concept, which offers a series of practical workshops for manufacturing industry SMEs in the Tampere region to increase their understanding of corporate social responsibility).
- Engaging higher education stakeholders and students as well as related stakeholders in the Szeged region to mitigate the causes of brain drain.
- Broadening the Szeged region pilot cross-border to include Timisoara innovation actors to integrate and implement RRI activities and distribute learning materials in a larger area.

(6) Evaluate the model of territorial R&I projects and their impacts on society, economy and science itself.

For each pilot, the project aims to evaluate the impacts of the pilot actions on society, the economy and science. Through an assessment model, each pilots' actions will be evaluated against both the regional project leaders and their stakeholders' expectations of the projects societal, environmental and scientific impact. The project will then weight these expectations against the projects R&I impacts over the lifetime of TetRRIS. These main actions of this evaluation model will be executed in the second reporting period.

(7) Raise awareness on the effects of RRI in European territories by translating scientific knowledge gained throughout the process into useful and practical recommendations for policy and governance of the regions.

To date, the actions include:

- All the deliverables have been published in the project's website and are publicly available.
- The first TetRRIS policy brief was submitted to EC portal on 30th of November 2021 and it is published in the project website.
- The project has initiated benchmarking and learning processes among pilot regions (see WP4 pilot descriptions in this report).
- The project is collaborating with other Swafs14 projects under Super Morri Swafts ecosystem umbrella ("Swafs ecosystem" projects include e.g. NewHoRRIZon, SeeRRI, TeRRItoria) to enhance policy learning and effective recommendations. As a specific target have been evaluation practices and indicators of regional RRI.
- Blog posts in the TetRRIS website and in the regional partners' sites.

In practice, the major part of the work related to this objective will be done in work-packages 5 and 6, which have not started yet, but during the next reporting period. Also, the objective related to dissemination activities will concentrate on the second period, including the second policy brief.

1.2 Explanation of the work carried out per WP

1.2.1 Work Package 1

Aims

The Work Package 1 focuses on the ethics requirements that the project needs to comply with during its implementation. A separate work package on ethics requirements was automatically included in the grant agreement following the ethics review procedure and ethics evaluation

report comments. Aim is to ensure that due consideration is given to relevant aspects in the project work and all activities are conducted in compliance with ethics requirements.

Deliverables and milestones

The Work Package 1 “Ethics” consists of three deliverables:

- 1.1 A document describing informed consent procedure regarding participation of people and templates for the informed consent forms and information sheets.
- 1.2 A document confirming appointment of Data Protection Officer (DPO) and description of technical and organisational measures to safeguard the right of the data subjects/participants.
- 1.3 A document describing the procedures and criteria used to identify and enrol people to participate in the project activities (recruitment of humans).

VTT as the coordinating institution of the project was responsible for preparation of the deliverables. The documents were prepared in October 2020. Prior to the submission, each deliverable document was sent for review to the project partners and modified based on the comments received. Major elements and guidelines of close to final draft deliverables were also presented to the project partners at TetRRIS online Kick-off meeting on October 16th, 2020.

All the WP 1 Deliverables were submitted on time by the end of October 2021.

Progress and results

Task 1. Requirement No. 1

In this task, focus was on preparing a document that provides detailed information on the informed consent procedures we apply in the project. Besides describing the procedures, the document contains a template for the informed consent forms to be used in interviews, workshops and interactive co-creation events of the project. The project partners can apply the template in implementing the project. The original informed consent form template was reworked in January 2021 to improve its usability (see below the section on Potential problems & how they have been dealt with).

Task 2. Requirement No. 2

As part of this task, the Data Protection Officer (DPO) was appointed for the project. In practise Mr. Seppo Viinikainen, the DPO of the host institution VTT, serves as the Data Protection Officer of the TetRRIS project and his contacts were circulated with the project partners as part of the deliverable. Rest of the task focused on preparing a description of the measures to protect and maintain rights and data of the research participants in accordance with the General Data Protection Regulation (GDPR). Related to this, there was also defined the security measures to prevent unauthorised access to personal data or the equipment used for processing personal data. Handling of research data (incl. data storage and transfer) and related technical questions are dealt more in detail in the Data Management Plan (DMP) which was prepared as part of WP8 in January 2021.

Task 3. Requirement No. 3

The third task of WP1 consisted of description of the procedures and the criteria that are used to identify and recruit participants for the project activities. This is highly relevant topic as wide engagement and participatory co-creation with stakeholders in the four pilot regions is a key element of the project. The deliverable underlines ethical issues in recruitment of participants. Participation in activities is voluntarily and the participants are given relevant information on the project in advance. The project follows the data minimisation principle, meaning that only minimum required personal data (e.g. name, affiliation, job title/experience of interviewees/workshop participants) is collected, whereas no sensitive personal data (e.g. health, ethnicity, political opinion) is collected within the project.

In addition, PhD Jaana Leikas was appointed as Ethics Advisor (EA) of the project in January 2021. She is Principal Scientist at VTT and Adjunct Professor of the University of Jyväskylä, Finland and well versed in ethics' questions. She serves as Chairperson of the Ethical Advisory Board of the Finnish Centre for Artificial Intelligence since January 2020. Leikas is not part of the project team as such but brings in external expert view on aspects of ethics.

Potential problems/delays & how they have been dealt with

The original versions of the templates for consent forms and project information sheets were considered excessively detailed and lengthy for practical use in context of research related interviews and events. The topic was discussed in the Steering Group meeting on January 28th, 2021 and based on the partners' comments VTT team drafted more concise versions of the templates that were then circulated by mail to the consortium partners and made also the templates available through the project Microsoft Teams channel.

What will be done in the reporting period 2?

VTT project team will assess the three deliverables to ensure that their contents are up to date and if needed revise and submit a new version(s) of the document(s). The internal assessment will be done in January-February 2022.

1.2.2 Work package 2

Aims

The first aim of WP 2 was to develop a general conceptual framework for the TetRRIS project and an analytical tool to “map” (describe and analyse) the different territories' local innovation systems. This was also served to establish a common understanding of key concepts (e.g., RRI) among the consortium members. The second aim was to carry out such a mapping, in order to understand how the different pilot territories' local innovation systems and local development policy functioned, who the main actors, initiatives and projects with relevance to TetRRIS were, their patterns of interaction, and obstacles to and opportunities for strengthening the uptake of

RRI in the region. Exploiting these opportunities to strengthen RRI would ultimately make these local innovation systems and local development policy more open and responsive.

The mapping thus served to provide consortium members with an informational basis for identifying possible areas for pilot actions in the subsequent stages of the TetRRIS project (i.e., WP 3 and WP 4).

More broadly, WP 2 (both Tasks 1 and 2) also sought to develop a language to “translate” the often highly academic RRI terminology into concepts and ideas that the practice-focused local actors in the territories would be able to understand.

Deliverables and milestones

WP 2 consisted of two Deliverables:

- 2.1 The conceptual framework and analytical tool, validated in an internal workshop (held on 21 October 2021), submitted on 4.10. 2020.
- 2.2 A mapping report for each of the pilot territories, submitted on 1.4.2021.

Progress and results

Task 1. Development of the Analytical Framework and Tool

The task was completed between September and the early November 2020. Conceptually, a key aspect of this work was to integrate the distinct perspectives and theoretical discourses of RRI and of Regional Innovation Systems (RIS), and to help consortium members find a language to make the often-abstract and “academic” discourse of RRI meaningful to practice-focused local actors.

While the importance of RRI to the TetRRIS project is obvious, that of RIS may be less so. In fact, though RIS and its further conceptual and policy offshoots (e.g., S3) remain the most widely used academic and policy framework for understanding innovation and development policy at the subnational level, the objectives of the TetRRIS project (integrating RRI into local innovation and development systems and policy), required drawing from both RRI and RIS. RIS concepts and discourse tend to be more familiar to practice-focused local actors in the pilot territories that TetRRIS aims to engage with (i.e., local innovation project managers, business people, local officials and staff from intermediary organisations etc.) than RRI.

These two theoretical traditions and policy discourses have largely evolved separately. They constitute distinct scholarly/practitioner communities with, hitherto, limited exchange between them, and often addressing different policy questions and institutional complexes. Integrating these two perspectives in the conceptual framework that was developed was therefore a key output of Task 1.

Besides the conceptual framework for the project, Task 1 also produced the analytical tool subsequently used to “map” the territories’ local innovation systems in WP 2 Task 2. The tool consisted of two lengthy questionnaires (47 main questions plus numerous further subordinate

questions) and guidelines for their use. One questionnaire addressed the macro level, to help analysts understand how the overall system works – who the main actors and institutions are, in what relations they stand to each other, what the local policy priorities with respect to innovation, technology and development are, what role different dimensions of RRI may already play in local thinking and action, etc.

The second questionnaire addressed the project or organisational/company level. It was intended to elicit information on the objectives and content of particular innovation projects, project officers' attitudes and understanding of “responsibility”, and the extent to which dimensions of RRI are practiced and societal and environmental impacts and “side-effects” considered in project design and execution.

Given the heterogeneity of the territories in the TetRRIS project and to make the mapping tool useful beyond the project itself, both questionnaires were formulated at a relatively high level of generality, and the tool was designed to be agnostic with respect to who answered them. It can be used both as a basis for interviews, or as a set of analytical pointers to guide desk and documentary research by scholars and practitioners.

The conceptual framework and mapping tool were published as Deliverable D2.1.

Task 2. Empirical Mapping

The task consisted of producing a “mapping report” for each territory on the basis of the conceptual framework and mapping tool developed in Task 1, and was completed between November 2020 and the end of March 2021. In the reports, consortium members “mapped” (described and analysed) how the local innovation system and local innovation and development policy and projects in “their” territory were constituted (actors, institutions, priorities, challenges, etc.), what role RRI already played in the territory, and what opportunities and challenges to further deepening RRI locally might exist. For this task, the consortium partners interviewed local actors (e.g., managers from local innovation projects, company executives, local government officials, and officers from intermediary organisations) and analysed relevant documents (e.g., regional development strategies, project websites, reports and proposals, etc.).

The mapping reports were published as Deliverable D2.2.

Potential problems/delays & how they have been dealt with

The completion of Deliverable D2.2 was delayed by one month (submission on 1 April 2021 instead of 28 February 2021). This was mainly due to three factors. Firstly, the work package leader (Nicholas Martin) was on sick leave for four weeks in November/December 2020. Secondly, the Christmas holiday period fell into the project period allocated to the mapping work, thus artificially cutting this short by about three weeks. Third, Covid-19 has caused the general effect that work proceed at slower paces, for instance, due to increased number of (virtual) meetings and more complicated coordination as well as additional responsibilities (e.g. child care, home schooling etc.).

What will be done in the reporting period 2?

WP 2 was completed within reporting period 1, so no further work will take place in WP 2 in reporting period 2.

1.2.3 Work package 3

Aims

The aims of WP 3 were, firstly, to validate and refine key findings from WP 2 regarding the status, challenges and opportunities for RRI in the pilot territories, through discussions, workshops and dialogues with local actors and outside experts (Task 1). Secondly, on this basis, and together with the local actors, WP 3 aimed to identify and co-design (plan) concrete “pilot actions” to further integrate RRI into the local innovation system and policy (Task 2).

Deliverables and milestones

WP 3 consisted of two Deliverables:

- 3.1 A report for each territory on region-specific challenges and areas for RRI action, based on a first round of workshops, discussion and dialogue, submitted on 25.5.2021
- 3.2 A concrete action plan for the interventions (“pilot actions”) to be pursued in WP 4, based on further workshops, discussion and dialogue, submitted on 30.9.2021.

Progress and results

Task 1. Validation and Refinement of WP 2 Findings, Identification of Options to Foster RRI in the TetRRIS, Consensus Formation

Task 3.1 was completed during April and May 2021. In each pilot territory, the project partners conducted focused discussions with actors from the local innovation and policy system and local academic experts to validate and refine the main results from WP 2. On this basis, a report was written for each territory, setting out the status of RRI within the local innovation system, challenges to further integrating and institutionalising RRI within it, and the identified needs of local actors and the local system related to RRI (that could be addressed by further strengthening and institutionalising RRI in the territory). These needs were understood as “opportunities” for developing pilot actions that local actors might be interested to involve themselves in. As part of the validation discussions, project partners also sought to identify further local activities and stakeholders that the pilot actions could potentially build on. The pilot actions themselves were to be devised in more concrete terms in the following Task 2, through a process of co-design with local actors.

Task 2. Co-Design of Actions

In the task 3.2., a further round of workshops and meetings were conducted with the regional actors and stakeholders to co-design and plan concrete actions to integrate RRI into regional innovation processes and policies. The task was completed in October 2021. The work was

based on preceding work done especially in the task 2.2 and task 3.1. During the task 3.2, each pilot territory defined a concrete work plan, a “road map” for the regional activities. At the end of task, a one-day workshop was organized on 19th October 2021 for the scientific and regional partners to discuss the plans and have feedback. Also, advisory board members and regional stakeholders from Tampere and Szeged-Timisoara participated in the workshop.

Potential problems/delays & how they have been dealt with

Deliverables D3.1 and D3.2 were each submitted approximately one month late relative to the schedule originally set out in the project proposal. The reason for this was mainly the delay in the completion of Deliverable D2.2, which set the project back by one month. Given the tight schedule and general increase in work burden among project partners and local actors and stakeholders due to ongoing Covid-19 restrictions, it proved impossible to “make up” for this delay. The submission date of deliverable 3.2 was then revised by the Commission due to aforementioned reasons and summer-holiday season in the middle of the scheduled task completion after communication with the project officer.

What will be done in the reporting period 2?

WP 3 was completed within reporting period 1, so no further work will take place in WP 3 in reporting period 2.

1.2.4 Work package 4

Aims

Building on the common areas of interest identified and first agreements reached during WP 3, groups of interested stakeholders will further develop the pilot actions specified under WP 4. Regional partners in the pilot territories will provide the platform for different types of exchanges that appear suitable towards the exploration of RRI related aspects in ongoing or to be started regional development and innovation activities. While the activities will be driven by the regional partners and stakeholders, the scientific partners will play an essential role in structuring them and providing content input.

WP 4 consists of four sub-tasks, which will be pursued in parallel in all the pilot locations. Each pilot shall be developed in the particular manner most fit for purpose, as established in scoping activities under WP 3. However, common approaches on how engagement could be orchestrated will be put forward by the scientific partners. Connecting to the scoping activities under WP 3, WP 4 adds a number of different activities to sustain and widen participation in the concrete planning and development of activities. Possible activities to that end include mutual learning workshops, focus groups, but also interviews and consultation with experts and small group discussions between actors central to the process. During WP 4, the key task of the scientific partners is to regularly liaise with the regional partners and working groups for specific issues - to jointly reflect on and propose possible methods and approaches to address challenges that manifest during the pilot activities.

With a view to concrete methodologies, a variety of engagement activities and co-creation methods will be applied depending on the concrete concerns and tasks that were established as of greatest relevance to the regional actors in WP 3. Both generic approaches and concrete experiences gained in the process will be documented in research protocols to support later activities of a similar type. Any new ideas regarding techniques and tools that arise will be documented and published under open licenses. Ethical and governance issues that arise during the pilot actions will be addressed, to the extent possible resolved and documented for analysis and reflection in WP 6.

Deliverables

No deliverables were yet submitted in the current reporting period. The Work Package is well on schedule.

Milestones

MS5: Pilot kick-off workshop conducted as planned (M14)

Task 4.1. Launch of Pilot Actions

This task integrated the results of the WP 2 and WP 3 into the project's preliminary piloting architecture. The main aim was to bring all starting points together into a robust and well-justified starting point for WP 4, which involved reflections on leverage points for RRI in the specific pilots by boosting stakeholder engagement. The mapping and analysis of actors and ecosystem (WP2, D 2.1) showed that the regional operating environments are highly context-specific and diverse and that there is no "one size fits all" solution for implementing RRI. On that basis, regional partners and stakeholder have agreed action plans, which formats of liaison and interaction to choose and whom to contact for specific pilot purposes.

In order to build on the common areas of interest between the pilot territories and facilitate structured exchange among the partners that will result in a Policy Lab space in WP5, a virtual meeting was organized on 22nd November 2021 to share insights between the regions about the actions and activities currently planned or previously held, the number and type of stakeholders involved, contents and materials developed or planned, challenges and tensions observed in R&I ecosystem for the RRI up-taking and insights and lessons learned through the process.

A template for reporting the regional experiences while executing pilot actions was designed together with YAG and TECNALIA. This template aims to guide pilot region members in reporting on pilot actions and activities that will occur throughout the Work Package 4 lifespan. It is both an instrument tool and a reflection tool that can help to identify challenges in the pilot action's implementation.

Potential problems/delays & how they have been dealt with

According to the GA, to start actions, each regional partner was supposed to organise a two-day kick-off workshop to present the results of WP 3 to relevant stakeholders not yet involved

in TetRRIS, and define the next steps for implementing the actions. Due to the COVID-19 pandemic situation, these workshops were however shortened and turned into virtual ones in the most of the regional pilots.

Task 4.2. Implementation and execution of pilot actions

Pilot 1: Tampere Region

Tampere Region

The vision of the pilot in the region of Tampere is based on the actions promoting sustainability and integrating RRI themes in the regional innovation ecosystem, especially in the regional strategic processes including the Regional Development Programme and Smart Specialisation Strategy. As the regional development strategies continue to shift towards strengthening the sustainability transition, and as the upcoming smart specialization strategy shifts towards the concept of S4+, embedding the RRI- dimensions deeper into the regional innovation system will become more important and visible. The Tampere region pilot of TetRRIS has anticipated these upcoming changes and has aided with the transition as part of the regional development programme and smart specialization strategy processes.

The Tampere pilot has also recognised that the traditional innovation ecosystem cannot drive the responsible sustainability transition alone without including the region's biggest economical actors, namely, the manufacturing industry. Thus, the pilot is divided into two spearheads, other focusing more on the **regional development processes** and other on **manufacturing industry's ecosystem and processes**. However, both spearheads are supporting each other and having a strong linkage through continuous dialogue and active search of points of contact during the project's lifecycle. The pilot connects thematically and by adopted practical approach closely with the Smart Specialisation Strategy; thematic specialisation areas of the strategy include sustainable industrial renewal especially through digitalisation whereas specialisation is to be supported through inclusive innovation and open development platforms strengthening cooperative culture in the region.

Based on the two-folded nature of the pilot, also the concrete vision is a combination of two separate but complementary targets. Firstly, the RRI will be strongly integrated into regional development processes promoting sustainability through regional development work. Secondly, sustainability is promoted through industrial RDI ecosystem through which the RRI themes will be integrated into industrial RDI practices. To put this together it could be stated that the overall vision of the Tampere pilot is "to create a cohesive, responsible and sustainable regional innovation system that works in a cooperation towards building a better future for the region".

The innovation system in the Tampere region is a multi-actor, multi-level innovation network. The region's industrial profile lies strongly with technology, manufacturing industry and ICT. The Council of Tampere Region and VTT found important that the pilot will contribute development of an innovation system, which while supporting renewal of traditionally strong

manufacturing industry, would also be attentive to ecological, ethical and social considerations in such a way that they are systematically integrated into innovation activities in the region.

In the beginning, Tampere pilot team (i.e. the Council of Tampere Region and VTT) identified a small number of ongoing or soon to be launched promising processes and initiatives from a perspective of the project objectives. The Council of Tampere Region launched a preparation of new regional programme in the early 2021, which provided a good opportunity to first introduce, and second enhance, sustainability and responsibility views in an institutional setting of a regional development. Regarding RDI and industry in the region, Smart Manufacturing Hub, a project supported through ERDF, and national SIX Smart Manufacturing initiative with strong connections to Tampere Region were considered promising activities from the project perspective.

To start the work, systemic characteristics of RDI system in the Tampere region were mapped as a part of the Deliverable 2.2. This phase also compiled information on existing RRI activities as well as acknowledgement of responsibility and sustainability issues in the regional development and industrial sector, and broader ecosystems in the region. Based on the analysis, the project team identified six RRI themes that are particularly important to the Tampere region; namely anticipation, openness, diversity (incl. gender questions), stakeholder inclusion and public engagement, transparency and communication of RDI activities, and last, reflexivity and responsiveness. In addition to these six themes, the key factor for all the six themes is increasing and broadening practitioners' and other actors' multidimensional understanding of sustainability and linking the numerous projects addressing responsibility and sustainability issues in the region to avoid overlapping.

In May 2021, the findings of Deliverable 2.2. were reported back and discussed in a small workshop with regional stakeholders – many of whom were interviewed during the preparation of the Deliverable. This conversation with the stakeholders helped the project team further elaborate the RRI related issues that could be addressed as part of the pilot activities in the Tampere region. The concretisation of pilot activities has benefitted from continuous interaction between the project team and various stakeholders active in the RDI ecosystem in the Tampere Region. Through the interaction, we have discovered possibilities to advance the aims of the project in the region through completed, ongoing and planned pilot activities.

What has been completed so far:

- 1. Regional Development Program:** is a pilot action intertwining with ongoing regional development program process, by enhancing RRI-dimensions within the dialogue between the regional actors and promoting open access and inclusivity between different ecosystems. The strategy process led by the Council of Tampere Region begun in the spring 2021. The TetRRIS pilot team was presented in every step of the strategy process, and at least one team member was present in the three strategy workshops (13.4.2021, 27.4. 2021 and 11.5.2021). The pilot team also helped to design the online survey that was sent out (24.3.2021) to the whole regional innovation ecosystem organizations reaching 247 replies. The team embedded the RRI dimensions into the survey and helped to clarify the sustainability aspects of the survey. Along with the RRI

dimensions, the pilot provided the regional development programme planning officer adequate information about the appropriate SDGs and how to further embed them into the programme, equally in respect to the S4+ development.

2. **Building bridges between the two pilot spearheads:** To enhance public engagement, transparency, and stakeholder inclusion, the Tampere region pilot organized “Our Common Responsible and Sustainable Future: Co- creating a future vision through the upcoming Regional Development programme and Smart Specialization” online workshop on 24th of August 2021 with 29 participants. The workshop was centred on the upcoming Regional Development programme’s mission “Tampere region business-sector has a positive handprint”. Representatives from central government, the EU-office, regional government, the higher education sector, as well as companies and business lobby organizations were invited to the workshop. The results of the workshop further encouraged the pilot partner of Tampere region that the pilot is on the right track and it has recognized topical and important challenges, opportunities, objectives and development initiatives.
3. **Partnering with the SPRINT Innovation Festival 2021:** The TetRRIS project partnered with Sprint Innovation festival (15. - 19.11.2021). The pilot action asked the students solutions to the challenge “Industry as the enabler for sustainable future - how to create attractive study and career pathways for manufacturing industry needs? How can we create more sustainable, diverse and equal industry?”. The challenge was formulated in cooperation with regional manufacturing industry representatives from Sustainable Industry X (SIX) initiative and Six Manufacturing Hub (SMH) during the summer and autumn 2021. The TetRRIS challenge was among the five most attractive challenges in the festival with 34 students solving the challenge. The solutions will be further utilised within the regional manufacturing industry ecosystem and the discussions of the future cooperation are continuing.

What will be completed in the coming period (REPORTING PERIOD 2):

1. **Co-creation with Ekothon2.** The Ekothon2 is a two-day co-creation online event that enhances public engagement with the civil society and the grass- root-level actors of the Tampere region (1. - 2.12.2021). The TetRRIS project prepared the RRI themed questionnaire and responsibility guidelines for workshop facilitation for the Ekothon 2 workshops in co-operation with the Co-Change and MARIE projects. As a becoming pilot activity, the questionnaire is shared for the use of other pilot actions and potentially beyond.
2. **RRI Roundtable initiative.** This Initiative is a pilot action connecting projects that address responsibility and sustainability issues in the region. The goal of the initiative is to transfer information and knowledge between RRI experts in the region and offer peer-support. The initiative will also serve as a discussion channel to find synergies between the existing sustainability and responsibility related projects and to avoid overlapping of the future projects. The first meeting was held on 24th of November and the meetings will continue in 2022.

- 3. Corporate Responsibility Accelerator Hub.** The concept of a concrete series of workshops where manufacturing industry SMEs could get information and increase their understanding about corporate social responsibility (CSR) was formulated by the pilot as an answer to the needs brought up in the discussions with the representatives of the manufacturing industry ecosystem (the regional SMH Smart Manufacturing Hub, national SIX Sustainable Industry X Initiative, and Business Tampere, the economic development agency of the Tampere). It was seen that SME's and midcap companies lack the possibilities to get concrete help and support in developing their CSR. A Finnish based consultancy company 4Front joined VTT in the effort to produce and test the concept of corporate responsibility accelerator hub in practice. The accelerator hub content is under an active preparation, feedback has been gathered from the representatives of regional manufacturing industry and corporate responsibility network in one-on-one discussions. The first Accelerator hub, for five to seven companies, will be organised during the spring 2022.
- 4. Deepening the deployment of SPRINT Innovation festival solutions.** Co-operation with the SIX initiative will continue based on the results from the SPRINT festival. Under the SIX initiative, an Industry Showroom will be designed to increase the profile of manufacturing industry's study and career pathways. The pilot will contribute to the design of the showroom by supporting the content creation in themes of responsibility and sustainability.
- 5. Regional exchange with Karlsruhe Technology region.** The aim of this pilot action is to enhance transparency and inter-European collaboration between the partner regions and promote institutional change within the regional development organizations by sharing knowledge, ideas and experiences between regions. Two scoping meetings were held between the Tampere team and the Technology Region Karlsruhe in the autumn 2021 to more precisely scope and delineate possible areas of collaboration. Based on what precisely will be agreed thematically, at least two to three further exchanges are planned in workshop format during the course of 2022. The goal is to set up a continuous collaboration that continues beyond the project.
- 6. Strengthening the regional strategies as they come into force.** The pilot action is a continuation for the work done within the Regional Development program preparation process, but no exact plans exist yet. Discussions with relevant regional actors will continue in 2022.

Pilot 2: Karlsruhe Technology Region

Karlsruhe Technology Region

The RRI pilots in the Karlsruhe Technology Region are based on a recently elaborated regional development strategy through 2030, which describes the vision of the region in three areas, namely technological focus on mobility, digitalization and energy (1), integration, cooperation and way of life (2) and regional development based on industry and skilled personnel (3). All of the three core areas have been further specified, including a roadmap with selected strategic objectives, fields of action/priorities and measures (see Deliverable 2.2). The implementation of the vision or the development strategy is very much dependent on TRK GmbH as the main

(public) regional organization acting at the interface of a policy mandate and the leading authority for regional innovation policy. The specific mandate of TRK GmbH vis-à-vis the priority areas can either be to function as an initiator, moderator or broker of specific projects or actions, as project coordinator, as fundraiser or on a higher level as a strategic sparring-partner for regional policy-makers.

Against the structural and organizational pre-conditions and particularly on the basis of three dominating project clusters (R&D and technology-oriented projects, innovation and socio-technical projects with a local application, infrastructure related projects), "de facto RRI" elements are already existing in the region, be it implicit or explicit. As pointed out in the mapping report, innovation practitioners in the region often follow RRI ideas in practice, for instance regarding local innovation and smart-specialization activities, which are strongly oriented to addressing grand challenges. Furthermore, considerable emphasis is often put on inclusion/public engagement and science education. The RRI dimensions of gender (or more broadly, diversity), ethics and openness are also commonly addressed in some form, and there is effort to act in anticipatory and reflexive ways.

For the identification of the pilots in the Karlsruhe region, the TetRRIS team took into consideration the already quite advanced integration of de-facto RRI concepts and practices, also recognizing the fact that the region is home to several research institutes that have played important roles in shaping the European discourse on RRI.

Process wise, we investigated the status quo and importance of the various RRI elements in the region on the basis of interviews with local actors from science, business and politics and by carrying out scoping workshops held in June 2021. By integrating these two approaches, it became clear, that the topic of citizen and stakeholder engagement or public participation was particularly worthy of further development in the form of pilot actions. Citizen and stakeholder engagement is generally viewed as important by local innovation practitioners, and many have made efforts to include citizens in decision-making about technology development and deployment in the region. However, while individual practitioners have sometimes built-up considerable knowledge and experience, at present few or no structures exist within the Karlsruhe Technology where this knowledge can be shared and further developed. Practitioners from companies, administration and research who want or need to conduct citizen and/or stakeholder engagement processes are therefore prone to "re-invent the wheel". Moreover, opportunities for further improving participation processes and spreading knowledge about how to conduct participation to actors who may not yet have much own experienced, is missed. Indeed, this gap was repeatedly brought up in our discussions with stakeholders and experts.

To address this need, the Karlsruhe TetRRIS team is working to develop a "Practitioner Network for Citizen and Stakeholder Engagement" as one major pilot action in TetRRIS. The objective of the network is to provide a safe space for focused discussions among practitioners of specific challenges and experiences, including failures, invite external speakers for presentations on topics of interest, and potentially to develop guidelines and handbooks. From the perspective of institutionalizing RRI in the region, the network is expected to contribute to making high-quality public engagement a "standard" part of local technology and development

projects. More broadly, we consider effective public engagement to be a fundamental precondition for the attainment of many other social, economic and environmental goals, and for the general “opening up” of R&D&I activities in the region.

For a second pilot action, we identified structured dialogue and exchange between policy makers of the Karlsruhe, Tampere and Szeged-Timisoara regions. The aim is to foster mutual learning on responsible regional innovation policies. The idea for the dialogue/exchange was developed between the three project teams based on the perception that the Karlsruhe and Tampere regions show significant similarities as regards the basic elements of systemic innovation policy, while certain practices and experiences in Karlsruhe are of particular relevance for Szeged-Timisoara. However, the implementation of policies is quite different, which also includes the integration of RRI elements into the respective regional agendas. For 2022, at least two or three exchanges are planned, in the form of workshops or similar. Issues of particular interest are for instance how to better involve diverse stakeholders in designing and implementing regional development strategies; how to strengthen the mission orientation and sustainability focus of local policy, and how to cultivate local identification with the region (especially where the region spans national borders) and develop initiatives across national borders.

What has been completed so far:

- 1. Practitioner Network for Public and Stakeholder Engagement:** The first concept for the network was developed based on discussions and exchanges during a scoping workshop with practitioners in June 2021 (WP 3). It builds on the broadly shared acknowledgement during the scoping workshop that it would be productive to not only exchange "good practices", but foster space for the open discussion of problems and challenges among peers. Subsequent to the scoping workshop, the project team held numerous bilateral discussions and small-group meetings with about ten R&D&I actors and other stakeholders in the technology region, to identify potential members, further refine the concept and identify initial topics. While the initial response was positive throughout, repeated pandemic disruptions and individual circumstances among the local actors prevented the activities from being taken up, as initially planned, in December. For now, an „official” „founding meeting” for the network has been scheduled for the early February 2022 at which the identified members for the network should „officially” agree a program of network activities for 2022. More specifically, the current idea is to agree on series of workshops that facilitate exchanges on specific topics related to public engagement. Initially, the network shall start with a limited number of member (no more than ten), to enable meaningful online meetings during which in-depth discussions remain possible, and mutual trust can be built. Based on the topics identified in scoping discussions, the project team has started to engage in own, internal background discussions to identify possible topics and issues of relevance for the upcoming year. To that end, members of the project team also attended a closed-door workshop for local government leaders and administrators on public participation in new energy technology development.

- 2. Regional Exchange with Tampere, Finland, and Szeged-Timisoara, Hungary-Romania:** During the first months of the pilot activities, it became clear that several stakeholders from the Tampere Region (Pirkanmaa) have a specific interest to initiate exchanges with the Karlsruhe team and, more specifically, the Technology Region Karlsruhe (TRK) GmbH. Based on this expressed interest, two scoping meetings were held between the Tampere team and the Technology Region Karlsruhe (TRK) in the autumn 2021. These meetings served several purposes. Firstly, they were to personally introduce members of the two organisations to each other who are not themselves part of the main TetRRIS project teams but should nonetheless be involved in the regional exchange. Secondly, they served to better familiarise the members of the two organisations with the respective other region's structures, political and policy processes, including the participant organisation's remit and tasks. Thirdly, they were used to begin identifying shared areas of concern and common fields of interest, around which future, more substantive exchanges can be built. In parallel, conversations with the Szeged-Timisoara project team were started to explore the possibilities for including Szeged-Timisoara in these exchanges.

What will be completed in the coming period (REPORTING PERIOD 2):

- 1. Practitioner Network for Public and Stakeholder Engagement:** During 2022, meetings of the practitioner network will take place every 2-4 months. It is planned to start with a limited group of up to ten participants that can later be broadened with a view to specific topics. Depending on the topic, external experts or practitioners from other regions are likely to be invited as speakers. Towards the middle or end of 2022, it is planned to shift from virtual to in-person meetings (sooner if pandemic conditions permit). Background discussions with the team from the Technology Region Karlsruhe as well as other relevant actors shall continue to ascertain that relevant topics are picked up and relevant key stakeholders will be assembled. At the same time, a focus will be put on the interests of the network's core members, as it is set up primarily to serve their interests and allow for a trust-based discussion between them. The intention is to build the network into a durable institution that lasts beyond the timeline of the TetRRIS project.
- 2. Regional Exchanges with Tampere, Finland, and Szeged-Timisoara, Hungary-Romania:** At least two to three workshop-style exchanges are planned for 2022. For the time being, these exchanges are envisaged as half-day online meetings between the regions, with structured discussions and sharing of experiences and good practices between local actors on identified topics of interests. As noted above, issues of particular interest include how to make the design and implementation of regional development strategies more inclusive of the diverse stakeholders situated in the region; how to further strengthen the mission orientation and sustainability-focus in local policy; how to create especially cross-border identification with the region, and develop initiatives across national borders. The teams are also exploring opportunities for in-person visits and joint attendance of conferences. Ideally, such visits could enable one to two days of

more intensive in-depth exchanges instead of the currently available shorter, max. 2-3 hour online meetings. The intention on all sides is to build a long-term, durable relationship between the regions beyond the timeline of the TetRRIS project.

Pilot 3: Autonomous Community of Cantabria

Cantabria Region

Cantabria has several “de facto RRI” characters in its regional innovation ecosystem. For instance, responsibility dimensions such as ethics and gender equality are present in several research organizations. In addition, other RRI aligned concepts such as sustainability and Corporate Social Responsibility (CSR) are popular in the region. There are also several synergies between the societal challenges proposed in the new regional RIS3 strategy and the values that are integrated in the RRI paradigm.

The region faces various challenges in the coming years due to rural depopulation, ageing, energy transitions, post-industrialisation, and mobility. All these challenges will demand collaboration and coalition building that can address the responsibility and sustainability related implications of these challenges for the Cantabrian region.

In this context, **Cantabria TetRRIS Lab** aims to function as a meeting point for the regional innovation ecosystem actors to stimulate science-society interactions in Cantabria in the four identified opportunity domains, namely (1) Bioeconomies, Health and Post Covid- 19 society; (2) Blue Economy and Fair Energy Transitions; (3) Responsible Industry 4.0; and (4) Territorial Sustainability and Responsibility. These domains encapsulate the regional R&I strengths, but also regional societal concerns, expectations and demands.

The main objective of the Lab is involving and engaging R&I stakeholders of Cantabria territory into four domains to discuss and identify actions needed in terms of responsibility. The logic behind this approach is to gather various stakeholders, research lines, collectives, societal concerns and expectations into specific forums and debates that can inform, assess and guide smart specialization strategies under the RRI lenses.

Pilot activities are being developed following the Social Lab (SL) approach. This will mainly consist of 3 participatory workshops aimed to gather and engage different regional R&I stakeholders. Co-creation processes started with an **exploration stage** that looks to promote engagement with selected stakeholders. The process kicked-off with a dedicated workshop with regional R&I stakeholders organised on the 29th of October 2021 in Santander.

A second **stage of implementation** will help to work on the definition and initiation of pilot actions along the lines of regional specific challenges in the identified domains (on 24th March 2021 and in June 2022). The SL process will contain a **horizontal evaluation stage** that will deal with the assessment of the co-creation processes. This stage includes intermediate follow up meetings with the stakeholders.

In Deliverable 2.2, the team conducted a mapping of the regional innovation ecosystem of Cantabria that was structured around a policy **documentation analysis and semi-structured**

interviews with 16 key informants representing 19 organizations. This fieldwork helped to gather different visions, particularities and values that are part of the innovation ecosystem of the region.

To validate the findings obtained in this previous exercise, TECNALIA team in liaison with SODERCAN organized a virtual workshop in the morning of the 6th of May 2021 with participants in the prior fieldwork.

Like mentioned, **the exploration stage** started with the WS1 (on 29th October 2021) that kicked off the Cantabria TetRRIS Lab. The physical event was designed and conceptualized to meet the challenges previously explored in the diagnosis of the innovation ecosystem (D2.2, D3.1 and D3.2). The main objectives of the event related to the setting up of the lab, as well as engaging a significant number of stakeholders in the R&I ecosystem of Cantabria. These objectives were considered critical for triggering collaborative pilot actions between stakeholders. In this regard, the design and contents of the event were oriented to promote these collaborative pilot actions for promoting and facilitating co-work around RRI feeding into regional RIS3 policy. In total 41 regional stakeholders participated (13 from academia/research, 16 from Innovation/business, 12 from Public Administration/ Policy Makers). Four ideas were formulated in this dynamic workshop:

- **Cooperative/Collaborative Health Forum:** To create a forum with the intention of translating it as a meeting, information and training point to generate synergies and partnership projects that will provide answers to social challenges between the different agents involved and committed in responsible health sector in the region.
- **Sustainable consumption model based on technological alternatives (aquaculture/hydrogen):** To change the consumption model towards a more sustainable process. The idea is to encourage organisations to consider aspects related to sustainability at a structural level. For example, the incorporation of the technologies focused on hydrogen and aquaculture can make the consumption model based on extractive fishing more sustainable via aquaculture extraction.
- **Digital Empowerment:** To enhance digital empowerment at regional level through training programmes in digital skills that add value to the employment, making it more competitive, improving talent retention and avoiding brain drain.
- **Sustainability Education:** To coordinate the already existing activities in the region that promote education and training in sustainability. This activity will increase the impact and engages citizens and regional ecosystem.

What will be completed in the coming period (REPORTING PERIOD 2):

In the coming period, the Cantabria TetRRIS Lab will focus on implementing (**the stage of implementation**) the pilot actions along the lines of regional specific challenges in the identified domains, as well as the actions (identified in **the evaluation stage**) that will deal with the assessment of the co-creation processes.

A follow up meeting with the stakeholders that participated in the WS1 is scheduled for 20th January 2022. This meeting will set up the basis for the design of the second workshop that is already scheduled for 24th March 2022 and third workshop in June 2022.

The evaluation stage is horizontal to the process, and it will capture, monitor and report the different learnings, lessons and recommendations provided by stakeholders. It will also evaluate the adequacy, suitability and performance of the co-creation tools employed during the development of the action plan. In this sense, a set of qualitative and quantitative indicators will be balanced to monitor participants' feedback and impact that will be provided in WP4.

No deviations are foreseen at the moment.

Pilot 4: Szeged-Timisoara region

Szeged-Timisoara region

TalentMagnet Pilot

The TalentMagnet project addresses major societal (demographic and labour market) challenges caused by the outmigration (brain drain) of highly-educated young people, primarily from small and medium sized towns in the Danube Region. The project aims to address these challenges through improved multilevel governance, targeted policy instruments and practical tools to attract and retain talent – tailored to the specific needs of small municipalities.

What has been completed so far:

The Szeged-Timisoara Pilot as a "learning pilot" focuses on deriving useful lessons and inspirations from the other TetRRIS pilots to stimulate first steps towards integrating RRI into the local development and innovation processes in the region. The local TetRRIS partner, DARINNO, has selected two ongoing strategic projects to advance RRI perspective and issues in the region: TalentMagnet and DIH-World. These two projects support the smart specialization strategies of the region towards more inclusive direction and implementation processes which take into account regional stakeholders and citizens.

TalentMagnet addresses major societal (demographic and labour market) challenges of the Szeged region caused by the outmigration of highly-educated young people, primarily from small- and medium sized towns in the Danube Region. **DIH-World** aims to accelerate the uptake of advanced digital technologies by European manufacturing SMEs in all sectors and support them in building sustainable competitive advantages and reaching global markets strengthening the capacities of regional Digital Innovation Hubs (DIHs), particularly in underrepresented regions across Europe. Hungarian partners in DIH-World, DUTIREG Non-profit Kft and V-TEST Kft, in cooperation with the regional stakeholders in the Dél-Alföld region are in process to establish a new Digital Innovation Hub in Szeged which shall become an active player for the innovation ecosystem.

What has been completed so far in the context of the TalentMagnet:

1. **Short presentation about RRI and TetRRIS for the TalentMagnet partnership through TalentMagnet steering meeting in Nyíregyháza, Hungary:** To support TalentMagnet project in addressing RRI Keys, an workshop was organized on 13 September 2021, to investigate, discuss and analyse all the possible ways to integrate RRI frameworks into the workflow of the TalentMagnet project in Hungary, as well as make a plan for the execution of the pilot. A short presentation on RRI and RRI methodology was given to the experts. This event will be followed by a workshop and round table on establishing a common understanding of RRI, in 2022. The incorporation of TalentMagnet's knowledge of RRI from working with other regions within the Interreg Danube project allowed for fruitful discussion on the future of RRI in Szeged.
2. **Raising awareness of RRI within TalentMagnet:** In terms of raising RRI awareness in the pilot, first steps have been taken. Raising awareness will continue in the next programming period. As the general knowledge about RRI issues in TalentMagnet as well as overall in the region is very low, it is a key aim of TetRRIS to raise awareness of RRI within both TalentMagnet and the Szeged region. In the light of the first event, TalentMagnets openness to familiarise themselves with RRI issues is very positive. Based on a bottom-up approach, TalentMagnet partnership have invited TetRRIS experts to conduct an online workshop about RRI on February 10th, 2022.
3. **Invite TalentMagnet key persons to main TetRRIS activities in order to strengthen cooperation and get more support:** In order to continue to integrate TalentMagnet in TetRRIS activities, key TalentMagnet partners were invited to a Consortium Workshop between October 19th-20th, 2021. The aim here was to involve the TetRRIS community in TalentMagnet issues and jointly brainstorm on possible solutions and/or collaboration between the two projects. As a result of this engagement, TetRRIS partners initiated cooperation opportunities with the Cantabrian Pilot to be started at the beginning of reporting period 2.
4. **Involving RRI keys and dimensions into the deliverables:** The first Talent Club has been set-up using some basic RRI principles/keys. The talent club enables the local authority and the other stakeholders to better understand the very specific needs of the local talent and to address those needs in an agile way. When establishing the first Local Talent Club, TalentMagnet partners took into consideration the gender and ethics RRI keys, as well as the open access, due to its inclusivity. This is only the first of many Talent Clubs to be opened in the following reporting period as part of TalentMagnet's objectives.

What will be completed in the coming period in the context of TalentMagnet (REPORTING PERIOD 2):

1. **Involving RRI keys and dimensions into the TalentMagnet deliverables, such as Urban hackathon:** TalentMagnet will develop an innovative new tool that engages talented young people to get involved in addressing pressing local challenges and identify possible solutions – thus further strengthening their links and attachment to the city, while also helping the stakeholders to better understand their specific needs and expectations. This new tool is „URBAN HACKATHON” – the methodology of intense

interactive events that involve local professionals from public and private sector and young people to jointly solve problems in various thematic areas (for instance environment, climate-resilience, social inclusion, mobility, or even talent attraction and retention itself, etc.). The methodology will be developed by the knowledge providers, in consultation with the city partners. To test the methodology, each partner will run one pilot hackathon in their cities during the project. When organizing urban hackathons, partners might take into consideration the gender and ethics RRI keys, such as the open access, because it will be open for everyone.

2. **Organizing voluntary interactive RRI training for TalentMagnet partners with TetRRIS experts:** As a result of the TetRRIS presentation to TalentMagnet in September, TalentMagnet partners asked to follow-up with a workshop on RRI. The workshop will test the knowledge of TalentMagnet partners and contextualise the RRI concept for the Szeged region. This workshop will be held on February 10, 2022.
3. **Creating RRI-related visuals (infographics, animations, leaflets):** This is a key activity, as visuals can help to summarize and understand the most important issues of RRI very quickly and efficiently. TetRRIS experts will develop and edit attractive RRI-related visuals which will be very important in the next activities. This is an ongoing process to be completed in January 2022 in collaboration with TetRRIS partner Eurada.
4. **Helping trained partners start to use RRI thinking during their work:** The activity behind this objective is to engage TetRRIS partners with Hungarian stakeholders in a “help-desk” format. This activity will begin in March 2022 – December 2022.
5. **Ask TalentMagnet partners to distribute the importance of RRI among their stakeholders:** This activity will coincide with the former. Following the training provided by TetRRIS, TalentMagnet partner should be equipped with the necessary RRI knowledge and matter of importance, allowing them to apply it within their own work. Partners will be asked to distribute information of the importance of RRI among their own stakeholders. The helpdesk will help partners to do that if needed.
6. **Brain-Drain working group between Szeged-Timisoara and Cantabria pilot regions:** Through the collaboration of work package 4, TetRRIS partners realized connections and common challenges between different pilot regions for which close collaboration could help reach shared objectives. In the case of TalentMagnet and Cantabria, both pilot regions face the issue of brain drain, and will thus aim to collaborate through small working group starting in February 2022. Because it was discovered through WP4, this working group has not been previously addressed in deliverables, particularly deliverable 3.2.

What has been completed so far in the context of DIH-World:

1. **Online workshop on 16 September 2021:** An online workshop was organized by TetRRIS’ Hungarian partners to investigate, discuss and analyse all the possible ways to integrate RRI framework to the development of the innovation in bordering the West Region of Romania. Similar to the TalentMagnet pilot workshop, the workshop stakeholders and the leaders discussed RRI as a new concept, addressed the drivers and challenges of implementing RRI in the region, and identified three main solution areas

for their region. What made the workshop unique was its focus on cross-border cooperation and approach to innovation.

- 2. Forum for projects by Territorial Innovation Platform on 8th November 2021:** The National Office for Research, Development and Innovation organised the event together with the Territorial Innovation Platform which is hosted by the University of Szeged as regional coordination body for ecosystem development. The objective of the workshop was to introduce the latest information about smart specialisation and the innovation management system towards industrial clusters and other regional stakeholders. Recording of the event is available for later viewing, as well.

What will be completed in the coming period in the context of DIH-World (REPORTING PERIOD 2):

- 1. Organizing voluntary interactive RRI training for DIH World partners with TetRRIS experts:** As a result of the TetRRIS presentation in September, DIH World partners asked to follow-up with a workshop on RRI. The workshop will test the knowledge of DIH World partners and contextualise the RRI concept for the Szeged-Timisoara region. This workshop will be held in the end of February 2022.
- 2. Integrating RRI in regional innovation services by DIH Business Plan:** Integral to both DIH-World and TetRRIS projects, a (first draft) business plan for cross-border cooperation across the DIH-World project will be completed in January 2022. The initial start of DIH functions will begin in May 2022 between DUTIREG and regional stakeholders. This will be followed up by a review of operations in April 2023.
- 3. Creating RRI-related podcasts and video material with easy-to understand key RRI-messages and advantages:** DIH World intends to develop podcasts over the next reporting period to spread awareness of RRI. The first podcast will be a teaser for the two training workshops (TalentMagnet beginning of February, DIH end of February 2022). Podcasts will feature DARINNO in cooperation with regional clusters and local non-profit communication agency.
- 4. DIH-World partner clusters shall distribute information materials about the RRI among their members followed by structured online discussions (Distribution / Jan.-March 2022):** Target clusters include STEPP, ArchEnerg, Építő-KIT, MIÉNK, IKOSZ member clusters + clusters in West region of Romania because industrial clusters have already created a national forum where they discuss policy issues and practical actions that clusters can implement jointly. Consequently, this national forum can be an efficient channel for distributing information about RRI related news and training opportunities.
- 5. Collaboration between Digital Innovation Hubs in Szeged-Timisoara region and Tampere pilot region:** Through the collaboration of work package 4, TetRRIS partners realized common interests between different pilot regions for which close collaboration could help reach shared objectives. In the case of DIH World and Tampere region, it was discovered that DIH Szeged-Timisoara could learn from the Tampere Digital Innovation Hub. The aim is to collaborate through small working groups starting in

March 2022. Because it was discovered through WP4, this working group has not been previously addressed in deliverables, particularly deliverable 3.2.

- 6. Collaboration between DIH World and the Karlsruhe Technology Region:** Proposal for collaborative actions shall be developed from January 2022 onwards based on previous cross-border strategic documents. (Example: TRANSVISION http://www.wallonie-en-ligne.net/Wallonie_Prosecutive/Philippe-Destatte_Pascale-Van-Doren_Transvision-Blueprint_European-Commission_2004.pdf)
- 7. DIH-World partner clusters will be invited to TetRRIS activities in order to continue and strengthen regional involvement in transnational cooperation:** As part of engaging the region in RRI activities, DIH stakeholders will be invited to join TetRRIS activities starting in January 2022. Participants will include regional actors: STEPP, MIÉNK, AutomotiVest, ICT Regional Cluster (RO).
- 8. S3 training with RRI in focus – practical online education to cluster managers and economic development professionals from September 2022:** 3-month online training (twice yearly from 2023) which can be based on the training actions done in cooperation with the Territorial Innovation Platform in Szeged which are scheduled to start in 2nd quarter of 2022 for companies and other stakeholders in regional innovation. Participants shall include actors/organizations/networks both from Szeged and from Timisoara.
- 9. Integrating RRI in European DIH cooperation between Szeged and Timisoara – cross-border concept and pilot implementation November 2022:** – initial agreement / from 2023 – joint projects in Horizon Europe. Actors/organizations/networks to be involved: DARINNO, University of Szeged, Tehimpuls Association, Regional Development Agency of West region.
- 10. RRI community of professionals – supporting RRI with knowledge and experience generated by TetRRIS partners. Start of networking function from 2023:** Participants: Actors/organizations/networks to be involved: IKOSZ, EMFIE and other relevant national networks in Hungary.

Task 4.3 Targeted communication to involve further stakeholders

At the beginning of the pilot actions, the circle of stakeholders strongly committed to them will typically be fairly small. To broaden the bases of people interested in TetRRIS activities, the pilot actions must be communicated in regionally specific ways separate from the overall dissemination activities. Reaching out to stakeholders identified in WPs 2 and 3 but not yet directly involved, regional and scientific partners will advertise the advantages of including RRI-related activities into general regional development agendas. It will provide insights on tangible benefits for individual target groups as well as new options for developing future regional innovation strategies. For that purpose, different types of communication materials will be developed. To ensure a wide impact, TetRRIS project foresees the preparation of customised promotional material to be adapted to the specific context of each of the four pilots.

What has been completed so far:

During the months of September and October 2021, EURADA, TECNALIA and SODERCAN designed promotional material in Spanish for the pilot in the Region of Cantabria in Spain. A roll-up was designed in Spanish including more concrete local examples to be easily understood by the social and economic agents who we wanted to include in the decision-making process of the regional smart specialisation strategy. TECNALIA and SODERCAN used them in the framework of a regional workshop on social responsibility in R&D (Oct 29th, 2021), that validated the mapping previously carried out in this territory.

What will be completed in the coming period (REPORTING PERIOD 2):

In the same way as done in Cantabria, the other three pilots have been offered to develop any specific promotional material to facilitate the involvement of their regional actors in the territory. EURADA, as coordinator of communication, will be organising bilateral meetings to gather specific communication needs for each pilot. The project is going to prepare customised material to answer those specific needs. For each pilot (as it was done in Cantabria), we will develop brochures, specific images that can be integrated in communication (internet, newsletters and social networks), roll -ups or any other local content that helps raising TetRRIS awareness. During the next months each pilot will make events and communication actions that will be amplified with this promotional material.

Task 4.4 Conclusion and concept for continuation

This task has not yet started. It will begin in M28. However, as the pilot actions carried out under Task 4.2 wrap up, the project plans to hold a concluding workshop (or similar event) to be held in each pilot territory. This will be organised by the regional partners with the scientific partners providing content input. The objective of this concluding event is to summarise the lessons drawn from the actions, and develop a concept for how these activities launched under the pilot may be continued in the territory, possibly in new form, and more broadly, how they may be fed into local development approaches.

Potential problems/delays & how they have been dealt with

There has not been problems or delays.

What will be done in the reporting period 2?

Each pilot region has specified in their respective sections what will be done in reporting period 2.

1.2.5 Work package 5

Aims

WP 5 will provide a policy lab as a space for structured exchange among the regional partners and stakeholders, to facilitate mutual learning, networking, and the creation of enriching synergies between the regions. The lab will consist of four sessions at the European level, to

bring together the pilots and other regions. The first three sessions will focus on a different pilot territory and thematic issue related to RRI. The final session will draw together and validate the key learnings generated in the lab and the pilots. To ensure maximum relevance to the regional partners and stakeholders, the sessions' thematic foci will be determined during the project lifespan. The lab will help to collect, systematise and condense key learnings achieved in the course of TetRRIS.

Deliverables and milestones

No deliverables have been submitted in the current reporting period. The Work Package is on schedule.

Progress and results

Task 5.1: Establishing the baseline (TEC (lead), all other partners) M21 – M23

This task has not yet started, but plans is to begin and run through the period between M21-M23 of the project. The task will establish guidelines for the design, development and evaluation of the TetRRIS Policy Lab that will be implemented in WP5 and will also design, organise and prepare the sessions (decisions over formats, schedules, moderation techniques, participants, production of short thematic briefs or similar materials for the participants, etc.). The Policy Lab is a space that will serve as a laboratory of structured exchange among the regional partners and stakeholders, to facilitate mutual learning, networking, and the creation of enriching synergies between the regions.

Deliverable 3.1 includes some of the already identified areas for joint action that might serve as an ingredient for this task. Several activities developed in the first period of the project have also tried to start building social capital between regions at stake, paying attention to synergies/complementarities but also to specific interests that can be highlighted from the very beginning of WP5. Project meetings (15.10.2020, 19.10.2021, 22.11.2021) have led to establish the baseline through a set of teleconferences between the different pilot for sharing information between their members and creating a community of practice that can mutually benefit from their actions, plans and learnings.

In this regard, WP4 will also develop some kind of mechanisms for stimulating knowledge exchange and sharing between regions as much as possible to determine how regions can help each other during our road mapping stage (WP4) and what regions would like to offer to the rest of the regions at the end of the process? (WP5) As a starting point, the WP5 project Team

Task 5.2: TetRRIS Policy Lab (TEC (lead), all other partners) M21 – M36

This task has not yet started but the four sessions of the policy lab will be conducted. The first three will be hosted by one of the pilot territories (M23, M26, M29); the final one will likely be held in Brussels.

The sessions' thematic foci will be determined during the WP4 lifespan.

Task 5.3: Lab Sustainability & External Stakeholder Group Involvement (YAG (lead), all) M24-M36

This task has not yet started, but plans to be begin and run through the period between M24-M36 of the project. There are no deliverables foreseen in the reporting period, under this task.

In this task, attention will be paid to interregional synergies created by TetRRIS to maximize the lab's impact. External stakeholders interested in the project, will be invited to take part in some of the sessions of the TetRRIS Policy Lab to maximize impact and establish synergies and collaborations that can be extended beyond the project's lifespan.

Potential problems/delays & how they have been dealt with

Deviations related to the COVID-19 outbreak have hit the project from the very start and a completely new challenge has arisen for all of us: we have lost the most important ways of creating understanding and effective communication actions, the face-to-face meetings. Instead, all had to accommodate online collaboration for effective implementation. Potential delays of the outputs can be expected due to the challenge to turn to exclusively online project implementation and the lack the necessary joint understanding in a collaborative project such TetRRIS and this specific WP5 that aims to facilitate mutual learning, networking, and the creation of enriching synergies.

What will be done in the reporting period 2?

This WP will start in Reporting Period 2. The following Deliverables and Milestones are expected to be completed in period 2:

- D 5.1 TetRRIS Policy Lab baseline and thematic briefs (M22, M23, M26, M29, M33)
One short (ca. 3-5 pages) text setting out the sessions' design for the session organisers and facilitators
Four short (ca. 2-3 pages) briefs setting out each session's thematic focus as background for participants
- D 5.2 TetRRIS Policy Lab report (M36) Three documents of about 10-15 pages each, documenting the main conclusions from each of the pilot-territory sessions. A final report on the aggregate learnings agreed upon during the validation session of ca. 25-30 pages.
- MS8 Session baseline defined (M 22): Document defining baseline.
- MS9 All three sessions in pilot territories conducted (M29): All three sessions in pilot territories conducted. Session reports.
- MS10 Validation session conducted (M33): Validation session conducted. Session report.

1.2.6 Work package 6

Aims

WP 6 will turn findings and the lessons from WPs 2-5 into actionable tools, good practices and recommendations for policy makers and stakeholders. It will produce two sets of materials: Firstly, policy briefs for practitioners in each pilot territory, outlining tools, good practices and policy recommendations tailored to their specific circumstances. Secondly, a more general handbook for practitioners elsewhere in Europe, summarizing the experiences, tools, good practices and illustrative examples generated by TetRRIS to support them in embedding RRI in their regions' innovation systems and regional development policy approaches.

Deliverables & Milestones

No deliverables or milestones have not been submitted in the current reporting period. The Work Package is well on schedule.

Progress and results

Task 1: Identification and compilation of key lessons

This task has not yet started but is planned to be completed between M23-M36 of the project.

Task 2: Validation of key lessons

This task has not yet started but is planned to be completed between M23-M33 of the project.

Task 3: Policy Recommendations and Handbook

This task has not yet started but is planned to be completed between M30-M36 of the project.

Potential problems/delays & how they have been dealt with

The project does not foresee any potential problems or delays.

1.2.7 Work package 7

Aims

The overall objective of this WP is to facilitate the execution of the other work packages by disseminating outcomes and successes of the project. The main actions are related to the integration of the knowledge and data gathered across various parts and levels of the project to create a scientifically sound overview of the obstacles and prospects for addressing the challenges of territorial RRI. This WP provides a context in which the project findings can be interpreted and used. A secondary complementary aim is to implement an effective framework for stakeholders' involvement, including policymakers, representatives of industry, civil society organisations and researchers.

The practical objective is to develop a set of policy recommendations providing a consistent, integrated overview of the project's results, and a shared knowledge of the obstacles and prospects for institutional changes and the implementation of responsible research and innovation in four pilot territories.

Deliverables and milestones

D7.1 Communication strategy and visual identity: A document setting the targets for communication and dissemination as well as tools and target audiences, goals, objectives and people responsible for dissemination. It includes also information of the events organized by the consortium and defines the visual identity of the project. The deliverable is updated at each reporting period. Submitted on 15.1.2021.

D7.2 Project website: A comprehensive internet portal to communicate all the project findings. It will be cross-linked from/to other channels used for the project and will integrate with the other channels (social networks, blogs, etc.) and other tools used in the project. Submitted on 1.2.2021.

D7.3 Plan for Dissemination and Exploitation of project Results (PDER). Due date M4, update in M18 and in M30. Dissemination was included in the communication strategy. An updated and separate version with exploitation will be submitted in M18.

D7.4 Report on dissemination and exploitation of results events. A report on various internal and external dissemination and exploitation events before interim and final reporting. The first one is included in the mid-term report. Next due month 35.

WP 7 consists of two milestones

MS13 (M6) Website of the project is operational, was achieved in February 2021

MS14 (M12) Social media channels are in active use, was achieved in the spring 2021 (approx. M6)

Progress and results

Task 7.1 Establishment of a Communication and Dissemination Strategy (CDS) and visual identity

EURADA developed the CDS with the support and contributions of the project partners. This document provides resources and guidance to all the actions of the project. It is the main pillar of the dissemination and communication work package (WP7). CDS contains useful and usable guidelines and instructions to partners on issues concerning communication activities. This document provides overall insight and a detailed overview on communication activities and offers guidance for the efficient and timely implementation of the project.

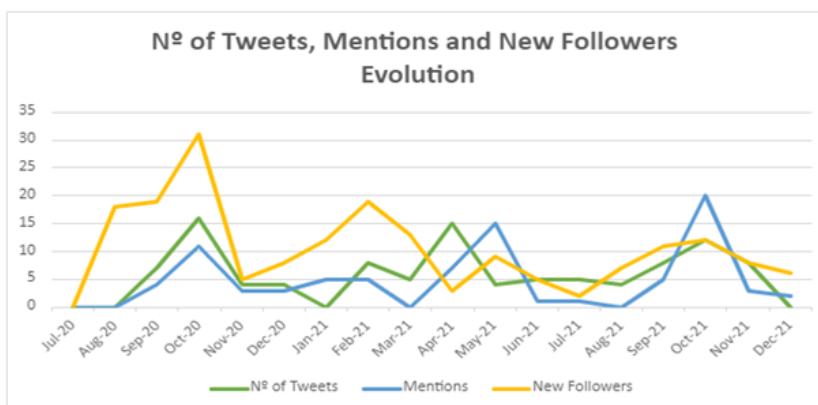
For the design of the corporate image of the project, an external designer (Ms Morgana Bartolomei) was hired, after a call for tenders in which we obtained five offers. We chose the offer with a lower price as it also offered quality guarantees due to Ms Bartolomei's previous experience in H2020 projects. Ms Bartolomei made several corporate image proposals using

the allegorical image of the Tetris game and once the most suitable combination was chosen, she developed the whole corporate image: logo, and promotional visual support such as brochures and roll-ups.

Task 7.2: Development of different tools for communication: website, brochures, newsletter, etc.

Following the visual identity proposed by the external designer Morgana Bartolomei, the following branding communication tools were developed:

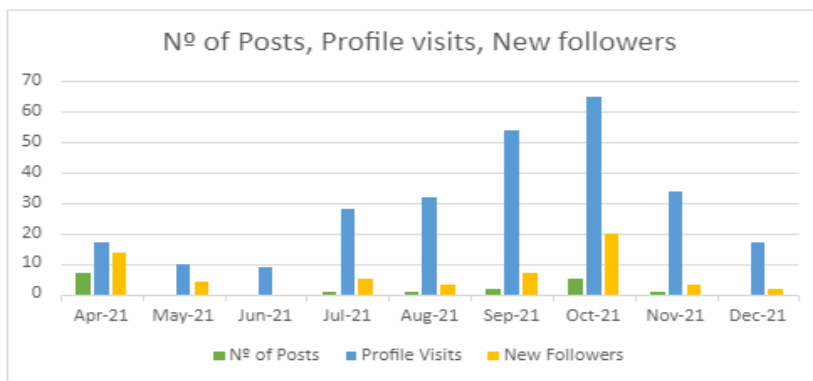
- Newsletter: The first newsletter was published and the second one is currently under preparation to showcase the main intermediate results of the four pilots. Since the start of the project, three campaigns were launched to get subscribers to the newsletter.
- Leaflets/Brochures: The preliminary leaflet/brochure design exists, and it can be easily developed both in e-format and printable. During the first reporting period of the project there has not been a need for separate leaflets/brochures. During the second period, leaflets/brochures are provided for project needs. All material follows the visual identity of the project.
- Project branding materials:
 - Templates for slide presentations, documents and deliverables were developed that allows the project partners communicate consistently.
 - Roll-ups were designed for the use of stakeholder event (WP4). Due to the Covid-19 pandemic, the work also included a design of a virtual background for the use of virtual events.
- Twitter: Twitter has been the most visited social media of the project with several peaks of interaction with target audience (Graph 1.). The project has achieved good results in terms of impressions per tweet (507.1), profile visits per tweet (72.5) and new followers per tweet (1.8).



Graph 1. Activity in Twitter

- LinkedIn: TetRRIS LinkedIn was activated last year (in April 2021). LinkedIn results have recently shown a positive trend broken by the end of the year, which is explained by the holiday season. As

the graph (Graph 2.) shows, the more content we published the more audience we reached. This is a key indicator of the direction that the project should follow in the coming months to keep on attracting the audience.



Graph 2. Activity in LinkedIn

The partners of the project have used their corporate accounts and newsletters to send customised messages to their stakeholders. The overall estimated population reached is 29.986 people of

which over 16.000 are common public informed with social networks and mass media.

Task 7.3: Development of the Plan for Dissemination and Exploitation of project Results PDER

The work foreseen to draft the plan for the exploitation and dissemination of the project results (D7.3), which should have been submitted in the fourth month of the project, has not been carried out. EURADA faced problems with the staff and was not able to lead the efforts of the partners in this aspect. The lack of work has been due to personnel changes and due to long term sick leaves of the people who were initially assigned to the project. However, there is a section of dissemination in the CDS - Communication and Dissemination Strategy (D7.1). The plan of Dissemination and Exploitation of Results (PDER) will have a review in month 18 and a final version in month 36.

Task 7.4: Dissemination events

TetRRIS partners have organised two conferences and 12 workshops. The two regional conferences have taken place in Karlsruhe Technology Region aiming at cooperation between the different actors. Each partner has held workshops in the framework of the project implementation in which they have promoted the project.

Press-releases have been launched in connection with the organisation of events. In Cantabria, SODERCAN and TECNALIA produced two press releases following the meetings organised in the region. The project appeared in the press including also interviews in radio and TV.

ISI-Fraunhofer participated in T-REGIO Network 2021 with a presentation of the use of RRI for development. TetRRIS partners have also actively participated in events organised by other RRI projects supported by the SwafS programme. Two scientific posters were presented during the final conferences of NewHoRRizon (virtual) and SeRRI (Barcelona), showcasing the main project outcomes received so far. Several partners took active part as speakers or panellists in the final conference of NewHoRRizon (Tampere, VTT). DARINNO and YAGHMA collaborated with TalentMagnet in a workshop to gain insights on how TetRRIS and TalentMagnet could work together. The project was also presented during a virtual workshop for Orebro region organised by CHERRIES. Representatives from the Tampere region have participated as keynote speakers in events organised by TeRRItoria, Co-Change and MARIE Interreg Europe projects.

D7.1 The submission was late approximately one and half months (submission on 15.1.2021 instead of 30.11.2020). The reason for this was unforeseeable situation that led to long-term sick leaves in the project staff of EURADA in the spring 2021. There was first a need to significantly support the work underway, then, later replace the former responsible persons due to long-term sick leaves. The delay did not cause any further problems or delays of operations.

D7.2 The submission was late approximately one month (submission on 1.2.2021 instead of 31.12.2020). The reason for the delay was the same as in the D 7.1, namely unforeseeable sick leaves. The delay did not cause any further problems or delays of operations.

D7.3 The plan for exploitation and dissemination (PDER) has not yet been realised although it should have been delivered in the fourth month. PDER is delayed because of staff changes within EURADA that has resulted into misunderstandings of responsibilities in the process of co-design of the dissemination and exploitation mechanisms. During this first period the Communication and Dissemination strategy (D7.1) has been followed. The first review will be prepared in M18.

What will be done in the reporting period 2?

The second period of the project includes more concrete results and the dissemination of these results will be intensified. The description of each region on the website will be expanded to include more information on their institutional transformation processes to incorporate RRI. This information will be communicated in an expanded form in articles and news published in the newsletters, produced every three months. Also blog texts will continue to be published regularly.

As far as social media networks are concerned, the current frequency will be maintained, taking advantage of the fact that the TetRRIS project is generating results making it possible to publish more of our own content.

We will continue with the active participation in events (as speakers, panellists, moderators) organised by other projects, cooperating in the complementary dissemination of results to reach a wider audience.

A series of 5-10 podcasts on the regionalisation of the RRI is already planned in detail using the resources not used for travel. We have requested several quotes from entities that provide technical support for the recording, and it is within our unspent budget. We have already prepared the structure of the first five sessions, and the script and speakers for the first two. In addition, we have involved Richard Tuffs (advisory board member) as moderator for the podcast.

The Plan of Exploitation and Dissemination of Results (PDER) is scheduled to be submitted as a revision of the deliverable in M18. The deliverable will revise the dissemination (targets, means contents), the exploitation of the outcomes of the project after its lifetime by the project partners and the uptake by others.

1.2.8 Work package 8

Aims

The objectives of the work-package are to ensure efficient internal communication among the consortium partners, with the EC and with external bodies, which participate in the project; to manage all administrative, financial and legal matters associated with the project; and to oversee and ensure the quality of all project activities, risk management, and data management

Deliverables and milestones

D.8.1. Work Plan for the project, was prepared by VTT in October-November 2020. It was discussed and accepted in the Steering Group and submitted on 4.12.2020, while the planned submission date was on 31.10.2020. Explanation for the delay is provided in the end of this WP description. Work plan is a living document, and it is updated if necessary.

D.8.2. Data Management Plan (DMP) for the project was prepared by the VTT team in January 2021. A draft version of the DMP was presented and open questions discussed with the project partners in the Steering Group meeting on January 28th 2020. The document was finalised and submitted as Deliverable 8.2 Data Management Plan on 1.2.2021. The submission due date for the DMP was on January 31st 2021. The data management Plan is a living document and will be updated during the project when needs arise. Any changes to the Data Management Plan will be communicated and introduced to the consortium.

D.8.3. Interim report of the project drawing together the progress of the project and the half-way results were submitted on 28.1.2022 (this document).

D.8.4. Final report of the project is foreseen to be submitted in M36.

Milestones:

M18: Kick-off meeting of the project was organized on 14.-16.10.2020 as a virtual event.

M19: The interim report has been prepared and submitted on 31.1.2021.

M20: There has been second consortium meeting in October 2021, and the next one is foreseen in spring-summer 2022.

M21: Third consortium meeting is foreseen in M31.

Progress and results

Task 1. Administrative and financial management

A functional decision-making body of the project is the Steering Group (SG), in which all the participating organizations belong. In practice, SG is organized as regular meetings (usually one per month) for discussing on-going project related questions, following its progress, and making decisions on administrative matters. The project has a nominated Advisory Board

with the following members: professor Susana Borrás, director emeritus Richard Tuffs, CEO Raluca Cibu-Buzac, associate professor Vincent Blok, professor emeritus and director Jaime del Castillo. The advisory board members have participated in a project seminar and commented on the pilot plans during the reporting period. WP leaders are responsible of practical management on the WP level and follow together with SG the progress of the project. In practice, all the WP leaders are members and participate in SG meetings, which guarantees flow of information and ability to consensus decision-making within the consortium. The coordinator of the consortium is responsible for the financial administration, and it has nominated a specialist for that purpose, Coordinator, EU Project Finance, Isa Lempinen. The coordinator has prepared all the needed legal documents and they are in effect, including the consortium agreement.

Task 2. Quality assurance and risk management

During this reporting period, under this task, a detailed work plan with contact information and work and decision-making responsibilities for the project has been prepared and submitted as a deliverable (D8.1).

Coordinator and SG have monitored accordingly the progress and potential risks of the project. Besides potential risks identified in the DoA and related mitigation measures, outbreak of Covid-19 pandemic became an unforeseen risk, which in general, has affected people's time-use and availability thus affecting, for instance, conduct of interviews, and organization of events. The project was launched right after the Covid-19 outbreak in the autumn 2020, and transfer of various activities to virtual ones was still underway and people were learning new ways of working as well as adjusting psychologically to the new situation. Now, later, we have come to terms with a new challenge called "zoom fatigue". By this term has been referred to exhaustion of the human mind and body due to constant video-conferencing. While, in general, the transfer to virtual work mode took place, after all, surprisingly well, the zoom fatigue needs now more attention. In order to tackle this challenge, the project has tried, for instance, to keep meetings short (max 2 hours), and in the seminars, which last longer, keep the functional slots short with number of breaks between them, and workshop in break-out rooms of smaller groups. We have also started to support such longer meetings with virtual working platforms, like in the TetRRIS October seminar and consortium meeting (19.-20.10.2021) we used Howspace platform supporting collaboration and co-creation in virtual environment. This platform was well received by the participants.

Data Management Plan was compiled in January 2021. The document records purposes of the data collection, different types, formats and origins of data that is generated and/or collected during the project. The DMP documents also how the FAIR (Findable, Accessible, Interoperable, and RE-usable) Data Principles are considered and will be followed in implementation of the project. Furthermore, the Data Management Plan covers questions related to data security and ethical aspects. As a living document, the DMP will be updated in the course of the project. Mr. Juha Oksanen, VTT TetRRIS team member, was appointed as a Data Management Officer of the project.

In addition, the project has a nominated ethics officer, adjunct professor, principal scientist Jaana Leikas. During the reporting period no such issues have raised that would have needed her consultation.

The evaluation of outcomes of the project in terms of impacts by conducting key person interviews and pilot territory specific surveys is foreseen in the second reporting period.

Task 3. Communication

The coordinator is responsible together with EUR for the internal communication of the project. The coordinator has organized:

- On monthly basis, virtual meetings of SG, starting from November 2020.
- The kick-off meeting on 14.-16.10.2020.
- Second consortium meeting (not in the plan in October 2021; there was, however, a need for a reflection on work done and plan next year's work) on 20.10.2021.
- An advisory board meeting on 19.10.2021 in connection to the pilot plan reflection seminar. There was no identified need and time related opportunity for the meeting in an earlier phase. The next meeting is planned in the spring 2022.
- As means for internal communication and on-line work the project has an e-mail list, and a Teams-channel on VTT's servers. The Teams functions also as a shared and protected repository for the project documents.

The coordinator is responsible for the communication with the EC and has been actively in contact with the project officer when any needs for that has emerged (e.g. amendments, status change of an organization, use of resources).

Potential problems/delays & how they have been dealt with

D8.1 "Work plan" was delayed one month until the end of November (in the plan the deadline was on 1.11.2020). This delay was because the plan included detailed information, which was decided in the kick-off meeting in the mid-October and needed to be discussed further in the steering group meeting in November 2020, including more detailed timetable for the project activities within the planned framework. This did not cause any other delays in the project.

What will be done in the reporting period 2?

The operational plan for the next period includes:

- Continuation of all operational administrative and official duties, including e.g. monthly SG meetings and reports, as well as taking care of the internal communication.
- Potential update of DMP and work plan.
- Next consortium meeting is foreseen in the late spring 2022 (because there was a meeting in October 2021). Third consortium meeting is foreseen in M31.
- Advisory board meetings are foreseen in the spring 2022 (possibly in connection to consortium meeting), in the autumn 2022, in the spring-summer 2023, and in the end of the project.

1.3 Impact

In line with the work programme, the TetRRIS project has worked towards achieving the following objectives:

- implement open, transparent and democratic territorial R&I actions,
- trigger a measurable transformative and opening effect on organisations involved, and
- effect systemic change that is sustainable beyond the lifetime of funding.

So far, the consortium has identified the following results in terms of environmental, economic, policy, and social impacts. More precisely the project will evaluate the specific outcomes in the four impact dimensions in the end of the project as specified in the DoA.

Environmental impacts

Karlsruhe: Deep decarbonisation involves among other things the development and installation of large amounts of renewable energy technology (e.g. wind, solar, geothermal, power grids). It also involves substantial changes to existing mobility and transportation systems and practices (e.g., building new public transportation systems, repurposing road space from cars to bikes and pedestrians, moving from personally owned to collectively “shared” cars and mobility devices, etc.). Both are liable to prompt substantial concern and sometimes resistance from the (local) public and/or local stakeholders. This is a particular issue in the Karlsruhe Technology Region and southern Germany, as these regions need to construct substantial amounts of new energy infrastructure and reorient mobility systems in the coming decade. By strengthening and improving public and stakeholder engagement practices, the “Practitioner Network on Public and Stakeholder Engagement” that is being developed as a Pilot Action for the Karlsruhe Technology Region can help ameliorate local social conflicts surrounding energy and mobility transition. More broadly, given Tampere’s deep focus on issues of sustainability, the planned exchanges with Tampere may also help give practitioners in Karlsruhe new ideas for policies and development approaches in this regard.

Tampere: The regional development program and accompanied smart specialisation strategy 2022-2025, prepared in 2021 in Tampere region, bases strongly on sustainability, which brings sustainability in central focus in the regional development. Model of doughnut economy combining the concepts of planetary boundaries with the social boundaries was used as a framework in the new program. Despite the strong regional strategic focus on sustainability in Tampere pilot, most environmental impacts are foreseen to be indirect via improved understanding of responsible and sustainable business, for example in small- and medium-sized manufacturing companies.

Cantabria: The new S3 strategy for Cantabria that is being under development tries to address sustainability significantly. Sustainability shows not only with a particular thematic challenge, but also with different lines of action into the territory. Given the strong sustainability focus in

the region and the societal concerns, expectations and needs that have been observed during the development of TetRRIS project, enhancing territorial sustainability and responsibility have been selected as key domains to develop actions.

Szeged-Timisoara: Environmental impacts in the region are expected to be tangible via more sustainable urban planning actions currently developed in the Smart City strategy for the town of Timisoara. These impacts shall however be visible only within a longer timeframe.

Economic impacts

Karlsruhe: sustained economic development in rich countries requires continued technological innovation. However, innovation can both ignore real human needs, its own “side effects”, and evoke irrational “technophobic” opposition. Extensive involvement of the broader public and of relevant stakeholders in technological innovation processes can help avoid the problems of “misdirected” innovations that fail to address needs and of innovators failing to adequately consider potential side-effects and can also help stem misguided opposition to new technologies. Accordingly, the “Practitioner Network on Public and Stakeholder Engagement” that is being developed as a Pilot Action for the Karlsruhe Technology Region, can help support local economic development, by helping improve relevant public engagement processes.

Tampere: Tampere pilot aims to improve local economic development by collaborating closely with various manufacturing industry related initiatives. Tangible economic impacts are likely to occur in the longer time. One of the indications regarding economic impacts is that local manufacturing companies would be able to create value-added, new or significantly improved services and products, based on sustainability and responsibility. Another indication would be that Tampere region is able to attract new companies because of conscious decision to focus on responsibility issues in the regional development program.

Cantabria: Regional firms (+- 5) are engaged and participate actively in the project activities, forums, debates, interviews and workshops. The aim is to improve the level of understanding of responsibility that translates into practices that are more tangible in a longer term.

Social impacts

Szeged-Timisoara: The region expects substantial societal impacts given that their pilot is a test pilot and RRI is being introduced to many in the region for the first time. For instance, the TalentMagnet pilot in the Szeged-Timisoara region aims to reduce the loss of skilled workers (brain drain). The reduction of brain drain through implementation of RRI keys and research funding would mitigate the loss of skilled workers and loss of investment in education which leads to revenue (economic impact). One of the concrete examples of creating social benefits is the open forum for the citizens of Timisoara in November 2022 which focused on the possible priorities and development actions. Second, the social focus of the smart city strategy (Orașul pentru toți – The city for all) was strongly influenced by the aspects of RRI and the innovation focus (Ecosistem vibrant de inovare – Vibrant innovation ecosystem) has also integrated several RRI-related issues. Consequently, it can be stated that TetRRIS has directly influenced the strategic planning process in Timisoara which can be the starting point to further cooperative

actions in 2022 with Szeged and, eventually as transnational learning action, it can lead to cooperation for joint events with Karlsruhe Technology Region. Here the social impacts integrate into regional policy benefits.

Tampere: Social benefits in Tampere pilot are tangible in respect to engaging different stakeholder groups and this way raising understanding of responsibility. An important group to create long-lasting impacts are students who Tampere pilot reached via the SPRINT challenge competition. In addition, Tampere pilot works intensively with two manufacturing industry related hubs and offers local companies training and services of responsible innovation and business. In the second period, more stakeholder groups will be engaged, like civil society and other grass- root-level actors of the Tampere region. As the involvement of various stakeholder groups from regional governance to local civil society is promising, local social impacts of TetRRIS are also envisaged strong.

Cantabria: The Social Lab created in the project is expected to have a big social impact by giving room to regional stakeholders to articulate their concerns and at the same time actively contribute towards building responsible responses to overarching challenges.

Policy impacts

Karlsruhe: Good governance requires effective involvement of citizens and stakeholders in policy processes. However, such involvement faces numerous challenges. Poorly designed participation processes may fail to provide citizens with real scope to shape outcomes and decisions, or conversely overburden them with complex policy challenges they are not equipped to solve in their spare time. They can also inadvertently give (even) more voice to those citizens who already enjoy disproportionate representation (e.g., better-off and/or better-educated citizens, and those with free time), or be prone to capture by NIMBYism and "astroturf" operations launched by special interest. The "Practitioners Network" that forms one of the core pilot activities in Karlsruhe includes representatives from the local administration, and great care has been taken by the project team to adequately involve these individuals. By strengthening and improving public engagement practices also by the local administrations in the Karlsruhe Technology Region, the TetRRIS project can help improve and foster an "RRI-style" approach to local governance.

Szeged-Timisoara: The pilot region has reached policy impacts in the form of being actively involved in the preparation of the Smart City strategy for the town of Timisoara since August 2021. TetRRIS project has contributed to the process by providing information about RRI, and the TetRRIS team in Szeged has provided expert advice for the strategy process. In addition, the lead expert of the Smart City strategy in Timisoara acts as member of the Advisory Board of TetRRIS. Therefore, these people are best placed to bring expertise from TetRRIS to the Timisoara ecosystem that will eventually translate also to economic impact by improving responsibility understanding and capabilities in the local businesses. We may expect policy benefits in the Szeged-Timisoara region as the result of cooperation with national innovation office and with regional innovation platform in smart specialization monitoring and in related training actions.

Tampere: Tampere Pilot has created impacts to regional policy by successfully engaging in local strategy process, namely in the development of regional development program. It was the first time such intervention was made locally that aimed to integrate responsibility among sustainability in the strategic decision-making. In line with this aim, responsibility and sustainability are cross cutting the new regional development program published in the end of 2021. Given its concrete benefits, responsibility approach is foreseen to firmer institutionalise in regional governance and provide an example of good practice to other regions in Finland.

Cantabria: By enabling a broader consultation of regional stakeholders and citizens, the Social Lab in Cantabria will also help to convert regional innovation strategies into genuine responses to socio-economic and sustainability challenges. There is a high level of commitment from the regional government in this project, which makes this feasible.

Dissemination activities

Publication of scientific papers

- Currently in progress (under review): *Signalling Theory Based Economic Approach to Facilitate Responsible Innovation Practises for Businesses*. Nagy B., Lukovics M., Nádas N., Yaghmaei E. in the Journal of Responsible Innovation.
 - o This paper came from an indirect connection to TetRRIS as two of the three authors are TetRRIS participants. The paper will be open access and the fee will be paid by the University of Szeged.

Other publications

- Nieminen M. "Aligning regional strategy with RRI". Introduction to TetRRIS-project in the SeeRRI-booklet: Bringing responsibility and RRI into regional development: From theory to practice. Published by WeDo Projects, 2021. Available at: <https://zenodo.org/record/5567217#.YeVtQFnktGP>
- TRK GmbH. "Offizieller Start des Projekts TetRRIS". Introduction to the TetRRIS-project: In October, the TetRRIS project, part of the EU's Horizon2020 funding programme, was launched. The aim of TetRRIS is to develop strategies and good practices to integrate aspects of sustainability and forward-looking technology development more systematically into regional development. To this end, pilot initiatives will be carried out in the regions of Tampere (Finland), Cantabria (Spain), Szeged-Timisoara (Hungary-Romania) and in the TechnologieRegion Karlsruhe. Published in the TRK-Newsletter, November 2020. Available at: <https://technologieregion-karlsruhe.de/newsletter-nr-10-november-1>
- TRK GmbH. "Die Workshopreihe des TetRRIS-Projekts (EU Horizon2020) ist gestartet". Start of the pilot activities: Together with the Fraunhofer Institute for Systems and Innovation Research ISI, TechnologieRegion Karlsruhe GmbH organised a workshop on the topics of citizen participation and real laboratories as part of the EU project TetRRIS. Companies and institutions from various sectors were invited to the workshop. The know-

how of the participants was recorded and the needs for future workshops were identified. Published in the TRK-Newsletter, July/August 2021. Available at: <https://technologieregion-karlsruhe.de/newsletter-nr-7-juli/august-2021-2>

Presentations at relevant events (congresses, meetings, workshops, forums, etc.) organized by other projects of responsible research and innovation

- Poster presentation of TetRRIS in the NewHoRRIZon-project final conference (organized virtually) on 17.-28.5.2021 (Mika Nieminen - VTT)
- Presentation during 8th #ResponsibleRegions Dialogue “Eighth dialogue of #ResponsibleRegions - Can we measure the “wellbeing” of RIS with the dimensions of RRI and the MoRRI indicators?” on June 24, 2021 (Lisbet Frey – Council of Tampere Region)
- 13 September 2021: Presentation by Emad Yaghmaei (TetRRIS scientific partner) at Interreg Danube Transnational Programme TalentMagnet steering committee meeting
- Poster presentation of TetRRIS in the SeeRRI-conference on September 29-30, 2021, Barcelona (Arlene Kerins - EURADA).
- Presentation during the CHERRIES webinar "Shaping responsible healthcare systems in Europe - Focus on Örebro". (Esteban Pelayo – EURADA)
- 8th November 2021: joint workshop with national ministry and territorial innovation platform
- (Coming) 2022 Seminar Series: Lessons from STIR in post-socialist innovation environments - Miklós Lukovics

Blogs

- Frey, L. A head start to pilot actions in Tampere Region: Our Common Responsible and Sustainable Future workshop. Available at: [Blog - TetRRIS](#)
- Miettinen, J., Frey, L. & Rilla, N. From responsibility thinking to the shortage of experts in the manufacturing industry. Available at: <https://www.pirkanmaa.fi/vastuullisuusajattelusta-ratkaisuja-valmistavan-teollisuuden-osaajapulaan/>
- Miettinen, J. & Rilla, N. Sprint Innovation Festival – Engaging students to innovate the future study and career pathways for manufacturing industry. Available at: [Blog - TetRRIS](#)

Networking sources and other activities

- **October 13-14, 2021: World Summit AI**
 - o Network event used for learning on digital innovation hubs

External Stakeholder Groups

Since its start, the project has participated in Super MoRRI/Swafs14 network activity focusing on monitoring and evaluation in the context of responsible research and innovation. Swafs14 brings together the projects granted funding via Horizon 2020 Science with and for Society calls. This collaboration provides a platform for mutual learning, sharing experiences and insights on monitoring and evaluation between the projects focusing explicitly on RRI

issues/dimensions while being in different stages of their individual project lifecycle. The network has also covered issues such as the diverse ways in which RRI occurs, is being used and supported, or manifests.

Table 3. Mid-Term Impact of Dissemination Activities

Dissemination efforts	Target group	Expected impact (indicators)
Newsletter to inform the experts about project results	Policy makers, stakeholders	Around 300 subscribers (12 numbers in 3 years) 37 subscribers; one newsletter
Press conferences to facilitate the promotion and dissemination of the project by mass media	General public	1 per semester, 6 in total 5 press releases done. Impact on newspapers, radio and TV in Cantabria
Scientific journals	Academics, policy makers and stakeholders	One peer reviewed publication per year One publication in review process.
Workshops in each territory	Stakeholders	Over 120 stakeholders participating in 4 pilots Tampere: 70-80 stakeholders based on the following numbers: Mapping and designing pilots (15 stakeholders), Pirkanmaa sustainable future workshop (30 stakeholders), Sprint Innovation Festival challenge (32 stakeholders) Karlsruhe: about 40 stakeholders, based on validating mapping and scoping pilot actions workshops (~20 stakeholders), and bilateral and small-group meetings for mapping validation, designing pilot actions and general stakeholder outreach (~20 stakeholders) Cantabria: 50-60 based on the following numbers: Mapping Validation WS (15 stakeholders), and 1 st Pilot Workshop (41 stakeholders) Szeged-Timisoara: 50-60 stakeholders based on the following numbers: Mapping Validation WS (10 stakeholders), first pilot workshop TalentMagnet (7 participants) + first pilot workshop DIH-World (10 participants), second TalentMagnet Workshop (31 participants).
Participation in events, congress and conferences	Academics, policy makers, stakeholders	At least 2 per year where TetRRIS will be communicated Participation in 7 conferences and workshops organised by sister projects

Final conference in Brussels	EU regional representatives, EC officers, policy makers and stakeholders	Over 200 participants Not realized yet
Website	Policy makers and stakeholders	15,000 views per year (45.000 in total)
Social networks (LinkedIn, Twitter)	Policy makers and stakeholders	Over 500 followers/each network 1 message per week on LinkedIn: 54 followers 17 posts 1 message per week on Twitter: 188 followers 105 posts
Communication channels of the partners. EURADA will mobilize partners to use their own communication channels.	Policy makers and stakeholders	Impact in over 4,000 people Outreach in 29,686 people 2-3 times per year a message is replicated in partners' communication channels <ul style="list-style-type: none"> • Tecnalia: 2 articles published in company website and social media. • The Council of Tampere Region: blog published in Council's website • VTT: promoting Sprint Innovation Festival participation in company social media • TRK GmbH: 2 short articles about TetRRIS in the TRK Newsletter (7000 subscribers) • Fraunhofer ISI: 1 short article about TetRRIS included in the institute newsletter

2. Update of the plan for exploitation and dissemination of result

The project has started to produce results that allow a concrete dissemination of results to stakeholders. The channels involving stakeholders (newsletters) will be intensified to the detriment of other general channels (social media). It is also necessary to start identifying exploitable results of the project that can be applied by the partners after the end of the project or by other authorities and regional entities outside the project.

3. Update of the data management plan

There is no need for an update currently.

4. Follow-up of recommendations and comments from previous review(s)

Not applicable in TetRRIS (1st review).

5. Deviations from Annex 1 and Annex 2

5.1 Tasks

There has been delays in the following deliverables:

D2.1 (deadline 31.10.2020 and submission 4.10.2020) was delayed four days due to the fact that the deliverable became bigger than originally anticipated and due to internal misunderstanding of the deadline date in the organization responsible for the deliverable. The delay did not cause any further delays of operations, or problems.

D2.2 The completion of deliverable was delayed by one month (submission on 1st April 2021 instead of 28th February 2021). This was mainly due to three factors. Firstly, the work package leader (Nicholas Martin) was on sick leave for four weeks in November/December 2020, which caused some delay in the progress. Secondly, the Christmas holiday period fell into the project period allocated to the mapping work, thus artificially cutting work short by about three weeks in the regional data collection. Third, Covid-19 has caused the general effect that work proceed at slower paces, for instance, due to increased number of (virtual) meetings and more complicated coordination. However, the delay did not cause any major problems in the progress of the project.

D3.1 was submitted approximately one month late compared to the schedule originally set out in the project proposal (submission on 25th May 2021 instead of 30th April 2021). The reason for this was the delay in the completion of Deliverable D2.2, which gave the completion of D3.1 a very tight schedule right after it. Together the delay in the previous deliverable, the originally tight schedule, and general increase in work among project partners and regional actors due to ongoing Covid-19 restrictions, caused a situation in which it became impossible to catch up the original schedule.

D3.2 The submission date of deliverable was revised by the Commission due to aforementioned reasons and summer-holiday season in the middle of the scheduled task completion after communication with the project officer. The revised deadline for the submission was set 1.10.2021 and the deliverable was submitted on 30.9.2021.

D7.1 The submission was late approximately one and half months (submission on 15.1.2021 instead of 30.11.2020). The reason for this were unforeseeable and difficult sickness cases in the project staff of EUR, which led to long-term sick-leaves in the spring 2021. There was first a need to significantly support the work underway, then, later replace the former responsible persons due to long-term sick-leaves. The delay did not cause any further delays of operations, or problems.

D7.2 The submission was late approximately one month (submission on 1.2.2021 instead of 31.12.2020). The reason for the delay was the same as in the D7.1. The delay did not cause any further delays of operations, or problems.

D7.3 The plan for exploitation and dissemination (PDER) has not yet been realised although it should have been delivered in the fourth month. PDER is delayed because of staff changes within EURADA that has resulted into misunderstandings of responsibilities in the process of co-design of the dissemination and exploitation mechanisms. During this first period the Communication and Dissemination strategy (D7.1) has been followed. The first review will be prepared in M18.

D8.1 The submission was delayed approximately one month (submission on 4.12.2021 instead of 31.10). This was because the plan included detailed information, which was decided in the kick-off in the mid-October and needed to be discussed further in the steering group meeting in November 2020, including more detailed timetable for the project activities within the planned framework. This did not cause any other delays in the project.

D8.2 was submitted one day late due to internal misunderstanding in responsible organizations (VTT).

In addition, two deliverables 3.1 and 3.2 were not as extensive as was foreseen in the plan. The reason for this was that in practice the deliverable 2.2 (regional mapping exercise) already included many issues that were originally thought to be included in the later deliverables e.g. details of challenges and opportunities. Therefore, D2.2 was significantly more extensive and detailed than was foreseen in the plan. Therefore, a decision was made in the project not to repeat the contents of the earlier reports, but update and complement them if necessary, and add new elements like concrete plans.

5.2 Use of resources

TecNALIA has reallocated part of their own budget, shifting from travel to personnel costs. The COVID-19 outbreak hit the project from the very start. All had to accommodate online collaboration for effective implementation and develop our skills (e.g., facilitation of online group work, instead of face to-face encounters) and find the best virtual platforms to support the online work collaboration that enables all partners to participate and contribute equally. Additional resources, including human efforts, were needed to get equipped with the necessary capabilities for working effectively together in the virtual space and more time had to be allocated to carry out some tasks. More personnel resources than planned were needed for coordination, organisation, and the conduct of the 16 stakeholder interviews scheduled in WP2 (Task 2.2 Empirical Mapping) and had to be prepared in a more time intensive way. Task 2.2 needed an increase of 1,63 person months shifted from the following planned travel costs: Kick off meeting (2 researchers travel, 2 days) and WP2: Local travel for research interviews, meetings, etc and WP3: Local travel for research interviews, meetings, etc.

There is a deviation in the personnel expenses justified by EURADA in the first period. The total justified personnel expenditure is €64,026.19 (12.75 person/month), which represents an average of €5,023 person-month compared against the budgeted €6,500 person-month. This deviation is due to changes in the staff not initially foreseen in the project. Of the three people planned to work on the project, only Esteban Pelayo has been retained. Unfortunately, both Tessa Anné (unavailable since April 2021) and Christopher McInnes (unavailable since March 2021) have suffered long-term illnesses during 2021 and had not yet come to work. Both had to be completely replaced in the project by new colleagues, recruited specifically for this project with less experience. To guarantee the quality of the work, open selection processes have been carried out looking for experts with experience in communication and European funded projects. The director of EURADA (Esteban Pelayo), has increased his dedication to the project to ensure that the project is running smoothly. In addition, two people are now involved (a young recruit and an intern), to guarantee the continuity of the activities even if one of them

should become unavailable. We set up again a team of three people, in which two of them are in the day to day running of the project (the other one could always work if one of them is not available), and Esteban Pelayo as EURADA director guaranteeing the continuity and quality of the activities. The new colleagues have been working exclusively in WP7 on communication and dissemination. This work package is coordinated by EURADA and have a horizontal influence in the execution of the project. The new colleagues are working more hours than initially planned for WP7 and at a lower salary than budgeted for Tessa Anné and Christopher McInnes.

There is a deviation in the personnel expenses justified by VTT in the first period. There is 26% difference between the budgeted average €8500 person-month and the actual €6276 person-month. The reason for this is that in the first reporting period junior researchers have had a bigger role in the conduct of the project than was anticipated. More time has been allocated to juniors, and it has been identified, that partially this was also due to decreased travel and consortium-related face-to-face meetings during Covid-19, which require more time from seniors. Juniors have a lower average cost per month than senior researchers, thus lowering the actual personnel costs of person-month. The junior researchers have been highly competent in RRI, regional questions as well as various research methods, and they have been supervised by senior researchers, thus not causing any challenges for the conduct of the project. It is foreseen, that in the next reporting period the role of senior researchers might be bigger, thus increasing the average costs.

There is a deviation in the personnel expenses justified by YAGHMA in the first period. The total justified personnel expenditure is €54,483.25 (6.83 person/month), which represents an average of €7,977 person-month compared against the budgeted €9,350 person-month, and personnel expenditure SME owner € 20,477.48 (5.14 person/month) which represents an average of €3,984 person-month compared against the budgeted €9,350 person-month. So, in total €74,960.73 (11.97 person/month), which represents an average of € 6,262 person-month compared against the budgeted €9,350 person-month. This deviation is due to changes in the staff initially foreseen in the project. We have initially foreseen a senior candidate to join, although in the hiring process, no suitable senior candidates were found. Instead, a junior researcher, Ashley Krysta Smith, with a very relevant background was recruited – She has full competence to produce quality research, due to her academic background. The deviation is also due to change of entity legal status from Self-employed to a Private Limited company (B.V. in Dutch legal term), hence from unit cost for SME owner to actual costs for employees. Of the one person planned to work on the project, we now are with 2 people (senior and junior) and hope with the extra time effort of the junior we can stay within the budget as send in earlier email conversation. We have budgeted and total overspending of 13,2 months but will stay within the budget.

5.3. Other changes

Yaghma has recently transited the company' legal status under Dutch chamber of commerce from an eenmanszaak to a private limited company (bv). Based on EU Central Validation Service' advice, a new PIC number for the limited liability company has been registered. By

this, the self-employed natural person Emad Yaghmaei (PIC 906715358) will be replaced by the new legal entity, 'YAGHMA B.V.' with a business name 'YAGHMA' and the new (PIC 888065750). This has not caused a change in the budget. Based on information received from the Commission (PO), no amendment was needed in this case.