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# TeRRitoria

## Deliverable No. 2.1

### Deliverable Title: Set of mapping tools

<b>Deliverable leader:</b>	Partner 6: Applied Research and Communications Fund (ARC Fund)
<b>Lead Author:</b>	Ventseslav Kozarev, Programme Manager Science, Technology and Innovation Policy Programme, ARC Fund
<b>Contributors:</b>	Partner 2: Knowledge and Innovation (K&I) Partner 9: South-East European Research Centre (SEERC) Partner 1: European Science Foundation (ESF)
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<b>0.2</b>	June 2019	Knowledge and Innovation (K&I) – contributor  European Science Foundation (ESF) - contributor	Amendments to templates to be used for the mapping  Enhance descriptions of collaboration between ESF and ADR-NE
<b>0.3</b>	July 2019	Knowledge and Innovation (K&I) – author and contributor  South-East European Research Centre (SEERC) – contributor  Applied Research and Communications Fund (ARC Fund)	Added Chapter 3 of D2.1; comments to Chapter 2  Comments to Chapter 2 and Chapter 3  D2.1 – Recompilation of deliverable and consultation with all partners in WP2; finalisation of D2.1
<b>0.4</b>	August 2019	Applied Research and Communications Fund (ARC Fund) - author	Reformatted D2.1 to comply with the available deliverable template

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## List of acronyms / abbreviations used in this document

ADR-NE	Agentia pentru Dezvoltare Regionala Nord-Est
ARC Fund	Applied Research and Communications Fund
ASTER	SOCIETA CONSORTILE PER AZIONI
CSA	Coordination and support action
D2.1	Deliverable 2.1
D2.2	Deliverable 2.2
ESF	European Science Foundation
K&I	Knowledge and Innovation
NTNU	Norwegian University of Science and Technology
R&I	Research and innovation
RCM	Region of Central Macedonia
RIS3	Regional innovation strategy for smart specialisation
RRI	Responsible research and innovation
S3	Smart specialisation strategy
SEERC -	South-East European Research Centre
SMEs	Small and medium-sized enterprises
STEM	Science, technology, engineering and mathematics
WP	Work package



## Executive Summary

The TeRRItoria project (“Territorial Responsible Research and Innovation Through the Involvement of Local R&I Actors”) will develop and provide the grounds for experimentation with adoption of Responsible Research and Innovation (RRI) approach to several territorial R&I systems. Its basic assumption is that the policies, practices and approaches that provide the foundation for RRI in research institutions, could be successfully adapted for and adopted by territorial governance actors. Thus, the project’s key ambition is to enable and contribute to the joint development of what would be called “territorial RRI”.

The project is structured around 9 work packages that define the scope of the interventions into three consecutive knowledge-generating strands – analytical, reflexive and pro-active. Work Package 2 (WP2), which is the focus of this deliverable, belongs to the analytical strand, and, together with Work Package 3 will enable the aggregation of information to support the design and implementation of five transformative experiments enabling RRI in a territorial context.

**WP2 Mapping R&I Ecosystems** (of the TeRRItoria project) comprises three tasks. Task 2.1 is focused on the development of the tools to be used for mapping of the territorial millieux and of the R&I ecosystems. Task 2.2 is focused on the mapping of the territorial millieux. The mapping process revolves around the identification of key societal stakeholders and RRI-oriented or compatible practices and initiatives, as well as supporting policies, and seeks to prepare the territories for the co-design and actual implementation of the territorial experiments. Task 2.3 will produce state-of-the-art analyses of the territorial R&I ecosystems, and will seek to connect the territorial experiments to smart specialisation strategies.

This document represents TeRRItoria Project Deliverable 2.1 (D2.1) Set of Mapping Tools, and provides explanation and guidelines for the application of the mapping tools in terms of scope, process, objectives and intended results. The document is authored by partners ARC Fund, leader for work package 2, and Knowledge and Innovation, leader for work package 3, which contributed Chapter 3. Partner ESF, leader for task 2.3, also provided valuable contribution and review at various stages of the document’s development.

Deliverable 2.1 Set of Mapping Tools features four major chapters. The *introductory* chapter introduces the TeRRItoria project, the objectives of WP2 and its position with respect to the state-of-the-art, and explains the relation of Work Package 2 with the other work packages of the TeRRItoria project. The *second* chapter presents the theoretical framework that underlies the mapping process, and explains the significance of Work Package 2 within TeRRItoria’s work plan. It further explains the details of and the approach to task 2.2 of the project, which focuses on the mapping of the territorial millieux. It provides a clear explanation of the type of mapping process employed by the project, its stages, the process and types of information to be collected, and further provides the details about connecting the produced maps to the design and implementation of the territorial experiments. The *third* chapter, in turn, focuses on task 2.3, which has a different scope and focus, and aims at producing state-of-the-art analyses of the current implementations of smart specialisation strategies in each of the territories (mapping the territorial R&I ecosystems). Both tasks complement each other and will inform the co-creation process in the design of the territorial experiments. D2.1 ends with a *concluding* chapter which explains the information and knowledge flows from WP2 to WP4 and WP5 of the TeRRItoria project.



## 1. Introduction

### 1.1. Background: the TeRRItoria Project

- Background

The TeRRItoria project (“Territorial Responsible Research and Innovation Through the Involvement of Local R&I Actors”) will develop and provide the grounds for experimentation with adoption of Responsible Research and Innovation (RRI) approach to several territorial R&I systems. Its basic assumption is that the policies, practices and approaches that provide the foundation for RRI in research institutions, could be successfully adapted for and adopted by territorial governance actors. Thus, the project’s key ambition is to enable and contribute to the joint development of what would be called “territorial RRI”.

The project is structured around 9 work packages that define the scope of the interventions into three consecutive knowledge-generating strands – analytical, reflexive and pro-active. *Work Package 2 Mapping R&I Ecosystem*, which is the focus of this deliverable, belongs to the analytical strand, and, together with *Work Package 3 Mapping Governance Innovation practices in Europe and beyond* will enable the aggregation of information to support the design and implementation of five transformative experiments enabling RRI in a territorial context.

**WP2** comprises three tasks. Task 2.1 is focused on the development of the tools to be used for mapping of the territorial millieux and of the R&I ecosystems. It is coordinated by partner ARC Fund, which is also the leader of work package 2, and involves mostly partners K&I and SEERC, which had an active role in the conceptualisation of the tools and in shaping the implementation of the entire work package. Task 2.2 is focused on the mapping of the territorial millieux. The mapping process revolves around the identification of key societal stakeholders and RRI-oriented or compatible practices and initiatives, as well as supporting policies, and seeks to prepare the territories for the co-design and actual implementation of the territorial experiments aimed at incorporating RRI within territorial R&I systems and achieving RRI-oriented institutional changes. The task involves 5 pairs of partners, with the key responsibility for the mapping process assumed by TeRRItoria’s research partners, who will be supported by the respective territorial partner. Task 2.3 will produce state-of-the-art analyses of the territorial R&I ecosystems, and will seek to connect the territorial experiments to smart specialisation strategies. The task is led by partner ESF, and involves the 5 territorial partners who will carry out the analyses.

- Position with respect to state-of-the art: WP2 in short (aim, activities, partners involved)

WP2 is one of the two WPs belonging to the analytical strand of the TeRRItoria project. It will gather all the necessary information needed for the design of the transformative experiments in the five participating territories in the project, and will develop guidelines and strategies for the involvement of territorial actors, as well as for the elaboration of policy objectives for RRI in the respective territory, thus also providing the grounds for Work Package 4 Co-design of the transformative experiments. The mapping process in WP2 is split between two independent, yet complementary, tasks 2.2 and 2.3, each with its own scope and objectives.

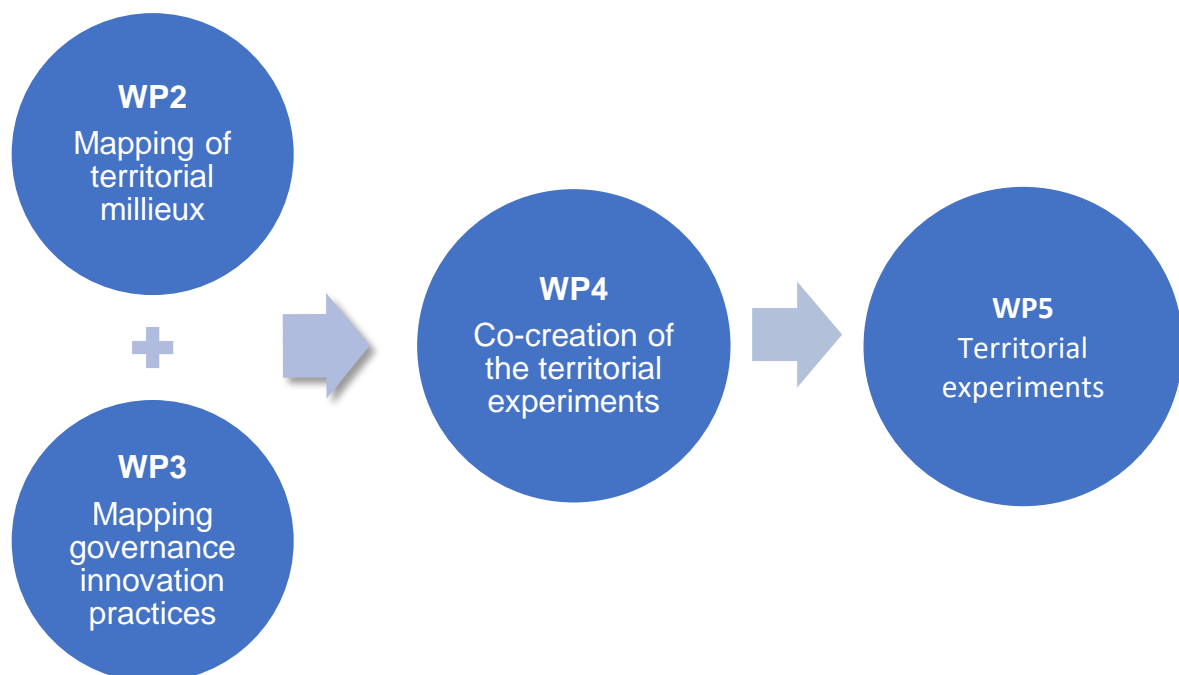


- Objectives/Targets

The main objective of WP2 is to map the 5 territories where the transformative experiments will be carried out to gather all the information needed for designing the experiments. The mapping process of WP2 seeks to collect relevant data in order to provide a complete and **structured picture of the RRI and R&I landscape** in each of the five involved territories.

## 1.2. Relation to other Work Packages

WP2 will run in parallel with WP3, and will feed into WP4. The mapping results will be utilised within WP5. The mapping results of WP2 will directly serve the design of the territorial experiments. This also means that the role of the territorial partners is critical since they possess the most intimate knowledge of their region and will be most directly involved in the design and implementation of the actual transformative experiments. The understanding of the territorial milieu is therefore quite important – both in terms of understanding the proliferation and future outlooks of territorial RRI, and of understanding some critical paths for involving territorial actors in the experiments.



## 2. Work done / current status of task 2.2 Mapping the territorial milieu

Task 2.2 focuses on identifying and analysing those actors, experiences, policies and territorial factors that can be useful for the detailed design and implementation of the 5 transformative experiments in the selected territories. In terms of geographical scope, task 2.2 is limited to the *milieu* – that is where the transformative experiment will happen, rather than the entire region. In some particular cases, the milieu and the region might completely overlap. The task is divided into 5 sub-tasks – one for each of the participating territories, as detailed below:

### ***Region of Central Macedonia, Greece (partners RCM & SEERC) – Developing a gender equality plan***

Given the target for this transformative experiment, the **Gender** and **Ethics** keys will be the primary priority in the mapping activities, closely followed by Science Education. Specifically, mappers need to look into the following:

- Women in STEM specialisation – focus mapping on schools, universities and research institutes in the region
- Representation of women and socially excluded groups in higher management of academia and R&I-relevant industries.
- Minorities and people with disabilities – look into particular policies and organisations where these are the focus.

### ***Region of Emilia Romagna, Italy (partners K&I and ASTER)***

The transformative experiment in the Region of Emilia Romagna links closely to RIS3, and has a focus on **Governance**, **Science Education** and **Public Engagement**. Specifically, mappers will need to consider the following:

- Educational offerings – both formal and non-formal opportunities.
- Education-relevant policies
- Civil society organisations and non-formal citizen groups, citizen-driven initiatives, public events where RRI relevance can be established
- Healthcare providers, wellbeing initiatives and policies, including their main target groups.

### ***Trøndelag Region, Norway (partners NTNU & Trøndelag)***

The transformative experiment in the Region of Trøndelag will focus mostly on the keys of **Open Access** and **Public Engagement**. It is also directly concerned with RRI governance and the strengthening of dialogue between the public and private education sectors represented by key research institutes and universities, and the integration of local business parks into this dialogue. As a preparation for the experiment, the mapping process will also serve as strategic support to the adoption and implementation of a regional S3.

### ***North-East Romania, Romania (partners ESF and ADR-NE)***

The transformative experiment in the North-East Romania will focus on the keys of **Public Engagement** and **Governance**. It will seek to support priority intervention areas of the regional RIS3. The mapping work will be constrained to the two areas where the transformative experiments will be taking place - Vatra Dornei and Ceahlau-Damuc. As a priority, mapping should focus on:

- Regional development agencies
- Research centres





- Producers associations
- Local action groups
- Local SMEs in the safe-food production subsector
- Opportunities for innovation support
- Innovation facilitators at the local level.

In the case of the North-Easter Romanian Region there is the added challenge that the paired research partner (ESF) would face difficulties in processing any data and primary sources in Romanian language. Coupled with the added risk of not having the necessary information available in English, this may significantly affect the mapping process in that territory. Therefore WP2 leader recommends to ADR-NE and ESF to follow a different separation of tasks, with ADR-NE carrying out the primary review, per the template, working with sources in the Romanian language, and provide regular summaries to ESF for review and inclusion in a final English language template.

### ***Municipality of Gabrovo, Bulgaria (partners ARC Fund and Gabrovo Municipality)***

The transformative experiment in the Municipality of Gabrovo will focus on the keys of Science Education and Public Engagement. It will seek to enable greater public engagement in S3 activities. It will focus on improving the connection between the local Technical University and SMEs in the municipality.

The mapping will focus mostly on:

- Technical university
- Members of the local business community
- Innovation policies and initiatives
- Civil society organisations

## **2.1. Methodology**

The sub-tasks in task 2.2 will be carried out by the research partners. The mapping process will focus on the collection and structuring of **qualitative data**. The inclusion of quantitative data is not considered necessary since no cross-territorial comparisons are to be conducted. Quantitative examples, however, could be included as supportive evidence in the description of particular features of territorial contexts as part of the mapping process.

The collection of qualitative information will focus on actors, experiences, factors, and policies. The proposed **methodology** is designed to be a) **inclusive** – the mapping will seek to identify a broad range of actors and stakeholders, beyond the ones immediately responsible for decision and policy-making, and particularly those within civil society; b) **specific to each territory** – as no direct comparisons will be carried out among the territories (and due to the differences in scope and size such comparisons would be invalid anyway), it will be important for **the mapping in each territory to support the planned transformative experiment**.

Regardless of purpose, the mapping should seek to be as inclusive as possible in order to make it truly reflective of the territory. Therefore, it is recommended that the mapping includes thorough screening of the actors and stakeholders, whose involvement in the transformative experiments would be the



most important, but expand to include other relevant actors who might in the future benefit from the successful implementation of the transformative experiment.

It is very important that mapping partners would not simply reuse existing data or approach only high-level (i.e. policy) actors in the process, but rather try to identify such stakeholders and actors whose implicit influence on and status within territorial affairs could be considered a defining characteristic of the territory. Particular attention will be devoted to identifying the actors of civil society who will be involved in the co-design of the experiments and their implementation and to analyse their orientations, knowledge, resources, relations, perceived risks, etc.

Work package 2 will map the territorial milieu of each of the 5 experiments, i.e. the system of actors and relations existing in the territorial area where the experiments will be carried out. In this respect a plurality and diversity of actors will be considered, including those that are less institutionalised (Community-based organisations), or non-traditional (religious communities, women associations, schools, labour unions, professional associations, sport associations, local media, etc.). Obviously traditional R&I actors such as businesses, researchers and science mediators will be considered as well.

The mapping process will revolve around desk research whereby the responsible sub-task leaders will identify the **appropriate sources of information**, and will collect as much descriptive data as possible working remotely to review existing public information, websites, documents, as well as secondary sources – i.e. information on public events/campaigns held. If, at this stage mappers find it necessary, they can decide on approaching directly particular stakeholders and request to meet with a representative who could provide additional or more detailed and nuanced information.

The data collection processes will be facilitated by a set of templates (mapping tools) in the form of observation grids, which sub-task leaders (research partners) will receive as Excel files. Each line of the mapping template will represent one observation, while each column will represent a mapping variable (variables are explained in section 2.2.1 on p.11). Thus the collected information, when joined together, will provide the foundation for a database of actors and a database of practices. These databases will also be linked to from a MS Word template document that will provide the foundation for each of the five territorial maps, to be included in the final mapping reports.

A map in this case is understood as a structured information with added reflection to provide navigational instructions for the design and implementation of the transformative experiments. As such, each map will provide all stakeholders involved with the background information, as well suggestions for specific steps to be taken during the implementation of the territorial experiment. The maps will be grouped together into deliverable 2.2 in October 2019. Additionally, the maps will be used to foster reflection during a design workshop held as part of WP4, task 4.1. The maps will further assist in the conceptual development of the transformative experiments within task 4.2, also spurring territorial debates on the possibilities for RRI.

Partners are advised to start with elaborating on the key challenge they plan to address through the territorial experiment. This can be done in a bullet format, referring to the key "problem" the experiment would seek to address. It might also be a set of linked "problems". Problems in this context refer to the situation that needs to change. It may, but most probably will not, be a statement of a single fact. Rather, it might refer to a particular state of affairs that has already been recognised as requiring transformation in order to create opportunities that are currently not present. The containing framework for this exercise would be the transformative experiment, or the initial conceptualisation thereof in the TeRRItoria project description.



Please note this is like a preparation phase for the mapping process, and it will help you to put it into perspective. Once you are satisfied with the formulated "problem", you can focus on policy developments that are relevant to the planned territorial experiments. This relevance can have different "modes". For some (easiest part) it could be **the direct focus on the RRI keys**, and in particular - on the keys that the territorial experiment is addressing as a priority. These include policies that are elaborated and accessible as **documents** - i.e. strategies, legislation, regulations, guidelines, etc. Others might be formulated as **policy targets**, with or without an associated time frame - i.e. x% of women as municipal councilors. Yet others may be visible in reports by **research institutes or think tanks**. Institutional rules and regulations in significant public or private bodies within the territory (i.e. universities, large corporations, schools, hospitals, churches, etc.) may also provide useful and relevant information in the form of policy. Not least, in some of the territories there may be ongoing **debates** - formal and institutionalized, or virtual through social media channels - although these may be much harder to track and explain.

As a second step, seek to identify possible **relevant stakeholders** - which may come also as a byproduct of the above, but not only. Some of the actors will not be easily attachable to policy developments, but would rather have a more specific focus, relevant to the experiment. This could be stakeholders that are already involved and relevant to the "problem" you elaborated. It could also be stakeholders that might be part of the "solution" that the territorial experiment is to offer. The first priority for mapping is to look at those actors and stakeholders who might get involved as part of the territorial experiment. Then think of those who would be able to exert influence on the scope or results of your experiment due to their formal or informal positioning.

## 2.2. Results

### 2.2.1 Observation grids

The mapping process will be carried out by filling in **four** different templates, marked respectively with A, B, C, D and E. **Templates A** will be used to fill in data on stakeholders and connect each stakeholder to one or more of the RRI keys. **The B templates** will be used to fill in data on particular examples of RRI – practices and initiatives with a clear focus on at least one of the keys. **The C templates** will help gather information about the factors influencing possible RRI developments, including risks and opportunities. **The D templates** will focus on policy document and decisions on the level of the territory that are associated with any of the RRI keys.

- Actors Observation Grid – A sheet

The purpose of this mapping process is to identify and establish the relevance of particular stakeholders and territorial actors to the territorial experiment and connect them to the RRI keys chosen as priorities. The best approach to such a challenge is to identify who within the territory being mapped is concerned with the particular key. The filled in templates will feed into a **database of actors**.

Collecting data about actors and stakeholders is based on identifying and recording information, and providing initial reflection and assessment, into the following list of "variables" (variables are noted with the letter A as belonging to the A templates, followed by a number, to form a unique identifier. The following table provides the list of variables, and explains the type of contents to be provided for each:



Id	Meaning	Possible values or type of content
A1	Name the stakeholder/actor (please include full name and popular abbreviation, if such is available, in brackets). Most often, that will be an organisation or an institution.	Free text
A2.1	Name and position of key contact person	Free text
A2.2	Email of contact person	Email address
A3	Primary societal sector	Only use one of the provided options – public body, civil society organization, business, university and research, school, community centre, non-formal group, other
A4.1	Relevance to the primary RRI key of the experiment	Free text. Explain why this actor is linked to this RRI key
A4.2	Relevance to the secondary RRI key of the experiment	Free text. Explain why this actor is linked to this RRI key
A4.3	Relevance to any other RRI key for the experiment	Free text. Explain why this actor is linked to this RRI key (if there are more than 2 keys concerned in the experiment)
A5	Scope of influence within the territory	Free text. Describe the kind of influence and importance of this actor within the territory/milieu. This can focus on <b>why</b> it would be important to have this actor involved in the experiment.
A6.1	Possible role in the territorial experiment	Free text. Define the kind of role this actor could play, if involved in the territorial experiment, with a view of <b>how</b> this actor might contribute to addressing the underlying challenge
A6.2	Possible benefits from the territorial experiment	Free text. Describe what benefits would result from the territorial experiment for this actor. You can describe this also in terms of <b>expected change</b> .
A7.1	Personal contact necessary?	Indicate whether or not it will be necessary to hold a follow-up meeting with this stakeholder.
A7.2	Addition information to be requested via a personal meeting	List the questions you need this actor to answer and/or explain what the meeting should focus on. Once you have obtained the required information, update the entry on this stakeholder to reflect the new insights.
A8	Sources of information	List of public sources of information. List your public sources of information. Ideally, these would be verifiable, i.e. accessible by others. Such sources could be websites, organizational documents, policy decisions and records, event fliers, organizational brochures, projects, etc.

- RRI experiences Observation Grid – B Sheet

In this template particular examples of practices and initiatives (collectively referred to as experiences) that can be associated with any of the RRI keys will be mapped. Of highest priority will be ones that are initiated by or involve in their implementation non-policy actors – i.e. civil society groups or organisations, schools, communities, business associations, universities.



While the A templates are concerned with the *who*, the B templates are provided for the mapping of *what*. Please do not include specific RRI-focused projects active in the region as that is more in the domain of WP3. **However, specific territorial examples of annual events, initiatives or one-off examples that fall into any of the RRI keys can be included.** University programmes and courses can also be considered as long as they have a clearly stated purpose relevant to any of the RRI keys. The information collected through templates A and B is closely related.

Id	Meaning	Possible values or type of content
B1	Name of the practice/initiative	Free text
B2	Brief description of practice/initiative	What is this practice about? What is its purpose? Who are the main targets involved?
B3	Type of practice/initiative	Use your own words to describe it briefly – i.e. event, educational course, organisational practice, etc.
B4.1	Owner	Specify the actor who is most directly in charge of this (owner). Please note that this actor needs to be mapped in an A template. If this has not been done already, the inclusion of the practice would provide a hint to the inclusion of the owner actor in the mapping of stakeholders.
B4.2	Other actors involved	List other actors who support the implementation of this practice, if any. It is recommended that all of the listed actors here are also mapped through the use of the A template.
B5.1	Relevance to the primary RRI key in the territorial experiment	Free text. Explain why this experience is linked to this RRI key
B5.2	Relevance to the secondary RRI key in the territorial experiment	Free text. Explain why this experience is linked to this RRI key
B5.3	Relevance to any other RRI key	Free text. Explain why this experience is linked to this RRI key
B6	Territorial scope	Describe how this experience fits within the territorial milieu
B7	Duration and regularity	How often does this happen?
B8	Assessment of impact	Provide your own qualitative assessment of how this experience contributes to changes in the territorial milieu, particularly in the relationships among citizens, other societal actors, policy changes, new challenges, etc.
B9	Compatibility with the territorial experiment	Provide your own assessment of how this experience may fit or may contribute to the territorial experiment, if at all
B10	Web link	Include a web link that presents the experience, if such is available. Links in the English language are preferred
B11	Next steps	Describe any follow-up steps to be taken during the mapping process, or to be taken into account during the co-creation process in WP4
B12	List of sources	Provide a list of sources – web sites, news reports, social media groups, etc.



- Territorial Factors Observation Grid – C Sheet

The C template will form a territorial factors observation grid. These are opportunities or risks of social, economic, demographic or cultural significance to the territory. During the mapping process, it would be particularly interesting how each identified factor links to any of the RRI keys on which the territorial experiments will focus.

The identification of factors can happen during any of the two general stages of the mapping process. The factors can be identified during desk research by looking at various sources (such as analytical reports, records of local decisions made, even news sources) or by reflecting on interviews conducted with stakeholders.

Id	Meaning	Possible values or type of content
C1	Factor statement	Use a single sentence/statement to define the factor. Note that the factors of interest would be factors that are typical for the territory, have relevance to any of the RRI keys and/or to the R&I ecosystem, and are either positive (emerging opportunities) or negative (risks).
C2	Type of factor	Specify the major type of factor among these: economic, social, cultural, demographic, other
C3	Type of factor influence	Specify whether this is a risk or an opportunity, or state Neutral, if impossible to determine
C4.1	Factor influence on primary RRI key	Explain how this factor affects aspects relevant to the primary key of the planned territorial experiment
C4.2	Factor influence on secondary RRI key	Explain how this factor affects aspects relevant to the secondary key of the planned territorial experiment
C4.3	Factor influence on other RRI keys	Explain how this factor affects aspects relevant to any other RRI key
C4.4	Factor general influence	Explain how this factor affects the territory in general
C5	Factor evidence	Refer to evidence in support of your assessment of this factor. This evidence can be any prior analysis, statistical data or reports, policy documents, etc.
C6	Link or sources	Reference the sources for the identified risk or opportunity and include a web links, if available.

- Policy Observation Grid – D Sheet

The D templates will help identify policies elaborated as documents and adopted by a level of authority that concern any of the RRI keys on which the territorial experiment is focusing, RRI as a whole, or any aspect of the planned transformative experiment. The mapping of the policy relevant documents and decisions should not be limited to the territory (i.e. regional/municipal level), so national documents should also be considered.

Please note it is not expected that policy decisions and documents would be titled in a way that clearly links them to RRI or a particular key. The purpose of this kind of mapping would rather be to identify those documents and decisions that would favour RRI in general or that would have impact directly relevant to any of the keys, and particularly those of interest to the experiments. In addition, policies



that are not RRI-specific, but may be relevant to the scope of the planned transformative experiment, should also be included in the mapping.

Id	Meaning	Possible values or type of content
D1	Title of the document	Include the full title of the document in the English language (translate as best as possible)
D2	Type of policy document	Try to determine the type of the document, based on your own assessment (or as stated by the document itself) - i.e. strategy, regulation, statement, etc.
D3	Summary	Include a short summary of the document (abstract). You can copy this from the text itself, if specified, but make sure the purpose of this document, as well as the intended impact, is clearly stated.
D4	Relevance to the territorial milieu	Describe, using your own words, how this policy/document is relevant to the territorial milieu, i.e. how it is being implemented locally, what other policies/processes it supports, how it informs territorial decision-making, etc.
D5.1	Relevance to the primary RRI key of the territorial experiment	If applicable, explain how this policy links to or affects the primary RRI key that your territorial experiment is concerned with. Provide your opinion on whether it would be beneficial to the experiment.
D5.2	Relevance to the secondary RRI key of the territorial experiment	If applicable, explain how this policy links to or affects the secondary RRI key that your territorial experiment is concerned with. Provide your opinion on whether it would be beneficial to the experiment.
D5.3	Relevance to any other RRI key	If applicable, explain how this policy links to or affects the any other RRI key, and provide your opinion on whether it would be beneficial to the experiment.
D6	Stakeholder in charge	Name the particular stakeholder/actor who is in charge of this specific policy within the territory. If the stakeholder/actor is part of the territorial ecosystem, make sure you map them using Template A.
D7	Other relevant actors	List the (policy) actors most relevant to this policy. This could provide hint for how they could be involved during the experiment itself. If the stakeholders/actors are part of the territorial ecosystem, make sure you map the listed actors using template A.
D8	Scope of governance	Indicate what is the scope of this policy – what level it affects. Use any or all of the following: municipal, regional, national, EU, other. Use “other” when the level of governance cannot be determined or is ambiguous.
D9	Critical considerations	Explain any considerations for this policy, i.e. limited time-frame, underlying debates, uncertainties, level of acceptance
D10	Examples of application	Provide short examples of how this policy is being implemented, if such are available.

## 2.2.2 Suggested structure for the Mapping report template

Each sub-task leader will conclude task 2.2 by writing a mapping report as a summary to present the overall findings of the mapping process within the respective territory. Territorial partners are



encouraged to provide a first review of these reports, in preparation for their use within WP4 activities. Each report should be submitted to the WP2 leader, and will then be joined together to produce deliverable D2.2.

### **Summary Report of Mapping for [name of territory] under Task 2.2**

Mapping partner [state the name of the mapping partner, as well as list the names of individuals engaged with the mapping process]

Number of stakeholders/actors mapped, by societal sector [write number]

Number of RRI experiences mapped [state number]

Number of factors identified [state number]

Number of policies mapped [state number]

### **Introduction to the territorial experiment**

Use the description from the Grant Agreement, possibly expanded by new insights that occurred during.

### **Key challenge to be addressed by the territorial experiment**

Briefly describe the challenge that the transformative experiment will tackle. This is the same challenge as formulated at the beginning of task 2.2.

### **Main risks and opportunities for the transformative experiment**

Summarise your findings of risks and opportunities, reflecting also on the actors, experiences and policies mapped

### **Key considerations for the design of the territorial experiment**

Based on the risks and opportunities, include advice to be considered during the design of the transformative experiments in work package 4.

### **Recommendations for the implementation of the experiments**

Propose specific steps to be taken in the course of preparing and implementing the transformative experiment in work package 5. Suggest approaches to addressing the underlying challenge of the transformative experiment. Propose contingency actions to alleviate identified risks. These recommendations should also be referenced and updated, if needed, during the co-creation phase in work package 4.

### **Other comments/impressions from the mapping process?**

Include here any further reflections or comments on the process that might be of relevance to the co-creation and implementation of the territorial experiment

### **Annexes 1 to 4**

Attach the lists of mapped actors (annex 1), experiences (annex 2), factors (annex 3) and policies (annex 4).

## **2.3. Next steps: Implementation Process**

**Transformative Experiment bilateral meetings.** For each of the transformative experiments a preliminary meeting will be held between the research partner and the territorial partner. During the meeting an in depth description of the experiment will be provided, including: objectives, type of subject to be involved, connection with RRI keys, territory where the experiments will be held, etc. The meeting will be the basis for the research partner to start working on the Mapping of the Territorial Milieu.





- *When:* By the end of June (already launched)
- *How:* The meeting will be held by person or at a distance
- *Who:* The meetings will be organised by the Task 2.2. sub-task leaders (the research partners).

**Tools discussion - bilateral meetings.** A set of bi-lateral meeting will be held between the WP leader (ARC-FUND) and each of the T2.2. sub task leaders. During the meeting the tools will be presented to each sub-task leader. The WP leader will provide answer and will collect feedback on the tools, and eventually will fine tune them so as to incorporate all the suggestions.

- *When:* After June 23
- *How:* The meeting will be held at a distance
- *Who:* The meetings will be organised by the WP leader

**Final version of the Tools for Mapping the Territorial Milieu.** On the basis of the outcomes of the above mentioned bilateral meetings, the tools for mapping the territorial milieu will be finalised and officially delivered in D2.1.

- *When:* By the end of June
- *How:* The final version of the tools will be incorporated in deliverable 2.1.
- *Who:* ARC-FUND in cooperation with K&I.

**Mapping phase.** The territorial Milieu where the Transformative Experiments will take place will be mapped, so that a set of actors, policies, RRI experiences and territorial factors will be identified, by the sub-task leaders, with the support - only when needed - of the related territorial actors. The mapping will be based on the tools developed in Task 2.1.

- *When:* July - September
- *How:* Using the tools delivered by task 2.1. and with the support of the task leader (if needed)
- *Who:* Each sub-task leader will carry out the mapping in the related territorial milieu

**Intermediate meeting.** A meeting among all the sub-task leaders and the task leader will be held to monitor the progress of the mapping process, to exchange suggestions and comments and for fostering the mapping process. Furthermore, during the meeting a template for drafting the Maps of the 5 Territorial Milieu will be presented by the task leader.

- *When:* End of August - Beginning of September
- *How:* Meeting at a distance. A doodle to identify the proper date will be launched in July. A template for drafting the Maps of the territorial Milieu will be provided.
- *Who:* The meeting will be organised and managed by the Task Leader (ARC-FUND). The territorial partners will not be involved.



**Drafting of the 5 maps of the territorial milieu.** For each Transformative experiment a Map of the territorial Milieu will be drafted on the basis of the template provided by the task leader.

- *When:* By mid-October
- *How:* Using the template provided by the task leader and the information collected in the previous phases.
- *Who:* Each sub-task leader (the research partners) will be in charge of drafting the concerned map.

**Delivering D2.2.** The 5 maps drafted will be collected and inserted in the deliverable 2.2. by the Task Leader ARC Fund. The D2.2 will be drafted with the support of K&I and will be reviewed by the project coordinator.

- *When:* By end of October
- *How:* Using the maps provided in task 2.2.
- *Who:* The WP leader will be in charge of this.
- *Develop a template for D2.2* – recap of the theoretical approach, plus index of the 5 maps

### 3. Work done / current status of task 2.3 State-of-the-art analysis on regional R&I ecosystems

#### 3.1. Methodology

The **objective** of Task 2.3. is drawing a picture of the 5 regional/municipal R&I systems where the transformative experiments have to be carried out, so as to facilitate the reflection that will be held in the next phases of the project on how the regional/municipal R&I ecosystems can change to incorporate RRI approach. Concretely, each sub-task leader will have the objective of drafting a document on the *State of the art of the R&I system*. The 5 documents will be collected by ESF as task leader and will be the main objective of the Deliverable D2.3. “Map of the state of the art of R&I ecosystem in 5 territorial areas” to be delivered by October 2019.

**Approach:** the 5 state of the art analyses will be based on the following features:

- *Knowledge management based:* the documents will be developed collecting the information and knowledge already available in different sources, including reports, papers, statistics and databases, but also the tacit knowledge of the sub-task leader (regional/municipal partners).
- *Self-tailored:* the regional/municipal R&I systems are very different for dimension, organisation, traditions and history; for this reason each document will be tailored on the context that it describes. Consequently the guides for developing the documents should be considered as a flexible support and not as rigid scheme.
- *Self-reflection oriented:* the information collected and reported in the documents taking into account that the “State of the art” is a way to prepare the reflection on the basis of evidences rather than on pre-constituted opinions.



## 3.2. Results

### 3.2.1 State-of-the-art Reports

- Focus

The State of the art analysis will be based on putting together the description of 5 key areas of the R&I system. The 5 areas are:

- Organisation: provides an overview of the regional/municipal organisation that will develop the transformative experiments and of its role in the governance of the regional/municipal R&I ecosystem
- Context: provide an analysis of the main feature characterising the Regions/City context such as geography, population, employment, education, economy, productive sectors, R&I, etc.
- Actors: Provides an overview of the main actors already involved in R&I ecosystem such as research actors, incubators, network, etc.
- RIS3 policy: provides an overview of the state of Smart Specialisation Strategy in the Region/City, including the specialisation areas, the implementation status, the role of specialisation in Regional/Municipal R&I system, etc. Other R&I regional/municipal governance actions can be mentioned as well.
- Factors: on the basis of previous analysis, the main strength and weakness factors as well as emerging opportunities and threats (SWOT analysis) will be highlighted and summarised.

- Structure

A detailed structure is suggested as an index of documents on the State of the art analysis of the R&I system in the 5 regions/city (see Annex). This structure will work also as a grid for collecting information. In the structure for each of the above mentioned Focus area is dedicated a chapter of the document. For each chapter a set of paragraph are suggested and a set sub-paragraph or indicators are suggested as examples. Furthermore for each chapter and paragraph a set of sources are listed. Each sub-task leader will freely draft the document on the basis of the available data and information. Each paragraph should contain either quantitative and qualitative information, as well as graph, tables or pictures.

- Length

The state of the Art analysis are intended as summary documents. Each of them should be about 20 pages long.

- Sources

The following sources of data can be used in the state of the art analysis. Other specific sources are suggested in the state of the art suggested structure of the state-of-the-art reports (see section 3.2.2).

#### S3 platform

- Go to <http://s3platform.jrc.ec.europa.eu/s3-platform-registered-regions>. Check if your territory or region is listed, and click on it.



### Regional ecosystem scoreboard

- Go to [http://ec.europa.eu/growth/industry/policy/cluster/observatory/regional-ecosystem-scoreboard\\_en](http://ec.europa.eu/growth/industry/policy/cluster/observatory/regional-ecosystem-scoreboard_en)
- Select the country and region, in which your territory is located. Download the overall results and graphs.

### Online S3

- Go to <https://assetsmapping.s3platform.eu/>. Under “Regional Asset Mapping”, choose Innovation system. Click on the past 5 years. Choose the region where your territory is located. Click on “Group by region” radio box at the bottom, and choose all available variables. Generate a report.
- Go to <http://specialisation.s3platform.eu/app.php>. Choose the region in which your territory is located under Technological Specialisation Index. Click on the Report button on the right.

### European Cluster Collaboration Platform

- Go to <https://www.clustercollaboration.eu/cluster-mapping>. Under Country and Region, choose the respective country and region where your territory is located. Scroll down to “See selection on the list” button and click it. Browse through the list that will show and identify all actors that are located within the territorial milieu, if any.

## 3.2.2 Suggested structure for the state-of-the-art reports

#	Chap./Par.	Description	Sources
1	<b>Organisation</b>	This chapter will describe the organisation that will promote the transformative experiment and its role in the regional/municipal R&I system	All the sources listed below + tacit knowledge
1.1.	Organisation mission and vision	The mission and the vision statement of the organisation will be shortly overviewed	- Strategic documents - Institutional Website
1.2.	Organisation structure	The organisation structure will be overviewed – relevant offices, department, roles or functions will be highlighted	- Internal organisation documents and charts - Institutional Website
1.3.	Organisation role in R&I system	The self interpretation of the organisation role in respect to R&I system should be reported	- S3 documents and reports - Speeches and PPT presentations
1.4.	Relevant ongoing projects	The main projects that may be relevant for Territoria will be shortly described	- Project websites - Project documents
2	<b>Context</b>	This chapter will provide some insight on regional/municipal overall characteristics, with an emphasis on quantitative information and data	This chapter is based on the “Regional assets mapping” tool developed in Online S3 project. app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a> sources: <a href="https://www.onlines3.eu/phase-2-analysis-context/2-1-regional-assets-mapping/">https://www.onlines3.eu/phase-2-analysis-context/2-1-regional-assets-mapping/</a>
2.1.	Geography	This paragraph is dedicated to general information about the region territory, such as the dimension and the presence of different territorial contexts.	- National and regional statistical sources
2.2.	Demography and society	This par. will provide data on the population size and dynamism, including variable such as sex, age and inward/outward migrations, and Tertiary education attainment	- National and regional statistical sources <a href="https://ec.europa.eu/eurostat/web/regions/data/database">https://ec.europa.eu/eurostat/web/regions/data/database</a> app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a>
2.3.	Economy and labour	This par. will provide information on Region/Municipal economy (GDP) and on Labour market (Economically active population, Employment, Unemployment, Growth rate of Employment, Human resources in science and technology, etc.)	- National and regional statistical sources <a href="https://ec.europa.eu/eurostat/web/regions/data/database">https://ec.europa.eu/eurostat/web/regions/data/database</a> <a href="https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database">https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database</a> app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a>
2.4.	Sectoral structure	This par. will provide an overview of the main productive sectors in the region/municipality	- National and regional statistical sources app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a>



#	Chap./Par.	Description	Sources
2.5.	Enterprise characteristics	This par. will shortly provide an overview of enterprise demography in the region, considering also high growth and innovative enterprises	- National and regional statistical sources app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a>
2.6.	Innovation system	This par. will shortly provide an overview of Regional R&D data such as: human resources in science and technology, employment in high-tech sector, researchers in all sectors, patent application, etc.	- National and regional statistical sources app: <a href="https://assetsmapping.s3platform.eu/">https://assetsmapping.s3platform.eu/</a>
<b>3</b>	<b>Actors</b>	This chapter will provide an overview of the key R&I players active in the region. This may be done both qualitative, quantitative way or visual way (maps)	Two sources may be used from the online S3 platform app: <a href="http://rimapping.s3platform.eu/">http://rimapping.s3platform.eu/</a> app: <a href="http://ecosystemsmapping.s3platform.eu/">http://ecosystemsmapping.s3platform.eu/</a> Previous mapping exercise may be summarised.
3.1.	Knowledge organisation	This paragraph will provide an overview of the main research and knowledge organisation present in the Region/City	- Previous mapping exercise - regional reports and documents
3.2.	Research & innovation Infrastructures	This par. will be dedicated to representing the main research facilities resources and related services present in the region/municipality to support the research community	- Previous mapping exercise - regional reports and documents Other sources: <a href="https://www.onlines3.eu/phase-2-analysis-context/2-2-research-infrastructure-mapping/">https://www.onlines3.eu/phase-2-analysis-context/2-2-research-infrastructure-mapping/</a>
3.3.	Clusters and Incubators	This par. will be dedicated to cluster, incubators and ecosystem in the region/municipality	- Previous mapping exercise app: <a href="http://ecosystemsmapping.s3platform.eu/">http://ecosystemsmapping.s3platform.eu/</a>
3.4.	Other institutional players	This par. will be decated to identifying the main institutional players already involved in the R&I ecosystem (regions, municipality, agencies, business associations, trade unions, etc.)	- Regional/Municipal reports and documents - Tacit knowledge
<b>4</b>	<b>Actions</b>	This chapter is dedicated to a summary of the state of the art of Smart Specialisation Strategy in the Region/Municipality	- Document and reports on S3 - Conferences speeches - Tacit knowledge
4.1.	Governance system	The par. describes synthetically the RIS3 stakeholders and the process of consensus building around the RIS3	- Document and reports on S3 - Tacit knowledge
4.2.	Main Strategies	The par. describes the vision that the RIS3 wants to promote for the region and the main way to achieve it	- S3 strategic documents - Tacit knowledge
4.3.	Priority areas specialisation	The par. shortly portraits the main specialisation areas selected in the region/municipality and why	- Document and reports on S3 - Other documents
4.4.	Implementation status	The par. describes what is the status of implementation of the strategy. Reference can be done on the ongoing phases, on the resources committed etc.	- Document and reports on S3 - Databases and statistics
4.5.	Monitoring and Evaluation system	The par. describes the status of monitoring and evaluation practices	- Document and reports on S3
<b>5</b>	<b>Factors</b>	This chapter is dedicated to analyse the strength, the weaknesses the opportunity and the threats in the regional/municipal R&I systems. The analysis can rely either on previous documents and on new exercise	- Update (if needed) of previous analysis - Scientific papers and studies Other sources: <a href="https://www.onlines3.eu/phase-2-analysis-context/2-7-swot-analysis/">https://www.onlines3.eu/phase-2-analysis-context/2-7-swot-analysis/</a> App: <a href="https://swot.s3platform.eu/">https://swot.s3platform.eu/</a>
5.1.	Strength	Identify/report the main strength of the Regional/Municipal R&I system	See above
5.2.	Weaknesses	Identify/report the main weakness of the Regional/Municipal R&I system	See above
5.3.	Opportunity	Identify/report the main opportunities emerging in the Regional/Municipal R&I system	See above
5.4.	Threats	Identify/report the main threats emerging in the Regional/Municipal R&I system	See above



### 3.3. Next steps: Implementation Process

The work should be developed accordingly to the following roadmap.

1. *Short guide discussion - bilateral meetings.* A set of bi-lateral meeting will be held between the WP leader (ARC-FUND), the Task Leader (ESF) and each of the T2.3. sub-task leaders (i.e. the territorial partners). During the meeting the tools developed will be presented to each sub-task leader, including a set of sources and a template to draft a state of the art analysis. The research partners will not be involved in the meetings.
  - **When:** Second half of June
  - **How:** The meeting will be held at a distance
  - **Who:** The meetings will be organised by the WP leader
2. *Final version of the guide for the state of the art analysis.* On the basis of the output of the bilateral meetings the guide for the state of the art analysis will be finalised and officially delivered in D2.1.
  - **When:** By the end of June
  - **How:** The final version of the tools will be incorporated in deliverable 2.1.
  - **Who:** ARC-FUND in cooperation with ESF.
3. *Document analysis.* A set of documents and sources will be analysed to identify the state of the art of the Regional Ecosystem in each of the 5 Regions/Municipality where the Transformative Experiments will take place. The selection and analysis of document will be aimed at identifying a set of information identified in the template provided in task 2.1. If needed the document analysis will benefit of input from other key player inside the regional/municipal organisation.
  - **When:** July–Mid September
  - **How:** Using the tools delivered by task 2.1. and with the support of the task leader (if needed)
  - **Who:** Each sub-task leader will analyse documents and sources in the related Regional/Municipal Ecosystem
4. *Intermediate meeting.* A meeting among all the Regional/Municipal teams and the task leader will be held to monitor the progress of the state of the document analysis, to exchange suggestions and comments and for fostering the process. Furthermore, during the meeting the template for drafting the state of the art analysis will be reviewed discussed and modified (if needed) on the basis of the work progress.
  - **When:** Beginning of September
  - **How:** Meeting at a distance. A doodle to identify the proper date will be launched in July.
  - **Who:** The meeting will be organised and managed by the Task Leader (ESF). The research partners will not be involved.
5. *Draft of the state of the art analysis.* A state of the art analysis document will be drafted for each Region/Municipality by the related partner on the basis of the template previously



discussed. If needed the draft will collect input and feedback from other key players inside the Regional/Municipal organisation.

- **When:** Mid September - Mid October
- **How:** Using the template provided by the task leader and the information collected in the previous phases.
- **Who:** Each sub-task leader (the regional partners) will be in charge of drafting the concerned State of the art analysis.

6. *Delivering D2.3.* The 5 state of the art documents will be collected and inserted in the Deliverable 2.3. by the Task Leader. The Deliverable will be drafted by ESF with the support of the WP leader.

- **When:** By end of October
- **How:** Using the state of the art analysis documents provided
- **Who:** The WP leader will be in charge of this.

#### 4. Conclusion: two mapping exercises

WP2 is one of the two WPs belonging to the analytical strand of the TeRRItoria project. It will gather all the necessary information needed for the design of the transformative experiments (aimed at incorporating RRI within territorial R&I systems and achieving RRI oriented institutional changes) in the five participating territories in the project.

The mapping process is split between tasks 2.2 and 2.3, which are complementary, but each has its own scope, objectives and implementation strategies. The mapping activities in WP2 will be carried out in parallel. For task 2.2, the primary mapping activity will be carried out by the **research partner**, with the occasional support of the related territorial partner, while in task 2.3 the responsibility is solely with the **territorial partner**.

Task 2.2 is designed around mapping as a knowledge building process to enable the participating territories to carry out the transformation underlying their planned experiments. As such, the mapping process of task 2.2 can be considered *navigational* – the maps produced will help develop insights to be used later in **Work Package 4 Co-design of transformative experiments** in support of co-designing activities, and in **Work package 5 Implementing the transformative experiments** to carry out the experiments. Task 2.3 on the other hand seeks to provide a current snapshot of the R&I ecosystem in the entire region, of which the territorial milieux are part, and deliver in-depth reviews as a form of baseline and a starting point for the transformative experiments. As such, task 2.3 will develop *situational* maps – a reflection on the current state-of-the-art in the regional R&I ecosystems.

The two tasks also provide an entry point into the further conceptualisation and planning of the transformative experiments, and are designed so as to empower the territorial partners to act as leaders in the experiments' implementation. The mapping processes will prepare those partners to successfully meet the following objectives through the transformative experiments:

1. producing changes at the territorial level, and
2. triggering institutional change in the territorial R&I systems.

The implementation of both task 2.2 and 2.3 depends on a typology of mapping tools proposed within this deliverable.

