



Grant Agreement number: **824565**

Project acronym: **TeRRitoria**

Project title: **'Territorial Responsible Research and Innovation through the Involvement of Local R&I Actors'**

Type of action: **Coordination and Support Action (CSA)**

TeRRitoria

Deliverable No. 6.1 Evaluation Scheme

Deliverable leader:	Tine Ravn, AU
Lead Author:	Tine Ravn, AU; Malene Vinther Christensen, AU
Contributors:	
Contractual delivery date:	01.02.2020
Delivery date:	31.01.2020
Dissemination level:	Public



Document Revision History

Version	Date	Author/Editor/Contributor/Reviewer	Summary of changes
0.1	21.01.20	Daniele Mezzana; Ildiko Ipolyi; Ventseslav Kozarev; Adam Brandstetter-Kunc	First version for review among TeRRItoria partners
0.2	28.01.20	Tine Ravn, Malene Vinther Christensen	Revision based on comments from TeRRItoria partners
0.3	29.01.20	Annette Bruun Andersen	Language check
0.4	30.01.20	Tine Ravn	Final revisions
0.5	31.01.20	Maria Michali, George Eleftherakis	Final Quality Check
0.6	31.01.20	Tine Ravn	Final version

Disclaimer

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Commission. The European Commission is not responsible for any use that may be made of the information contained therein.

Copyright

This document may not be copied, reproduced, or modified in whole or in part for any purpose without written permission from the TERRITORIA Consortium. In addition, an acknowledgement of the authors of the document and all applicable portions of the copyright notice must be clearly referenced.

All rights reserved.

This document may change without notice.



Table of Contents

DOCUMENT REVISION HISTORY	2
DISCLAIMER	2
TABLE OF CONTENTS	3
LIST OF FIGURES	4
LIST OF TABLES	4
LIST OF ABBREVIATIONS USED IN THIS DOCUMENT.....	4
1. EXECUTIVE SUMMARY	5
2. INTRODUCTION	5
2.1. Description of Task in the Grant Agreement	6
2.2. Objectives and needs of the deliverable	7
3. PROCESS EVALUATION.....	8
3.1. Approach and guiding principles.....	9
3.2. Evaluation questions, activities, and data collection for the process evaluation	12
4. IMPACT ASSESSMENT	16
4.1. Purpose and principles of the theory-based evaluation	16
4.2. Evaluation questions, activities, and data collection for the impact assessment.....	16
4.3. Inspirational catalogue of indicators.....	20
5. CONCLUSIONS	24
6. REFERENCES	24



List of Figures

Figure 3.1.1. Main features of process evaluation aligned to TE evaluation

List of Tables

Table 3.2.1: Evaluation scheme – Process evaluation

Table 4.2.1: Evaluation scheme – Impact assessment

Table 4.3.1: Indicators for inspiration

List of abbreviations used in this document

MORRI: Monitoring the Evolution and Benefits of Responsible Research and Innovation

RRI: Responsible Research and Innovation

R&I: Research and Innovation

S3: Smart Specialization Strategy

SDGs: Sustainable Development Goals

TE: Transformative Experiment

WP: Work Package



1. Executive Summary

This report outlines the approach to evaluating the five Transformative Experiments (TEs) carried out within the framework of the TeRRItoria project. By bringing together a wide range of stakeholders in the development and implementation of five different TEs in four regions and one municipality, the project intends to address and mitigate territorial Research and Innovation (R&I) challenges through the advancement of “Territorial RRI” (TeRRItoria 2019).

Overall, the internal evaluation of activities is designed to assess the implementation of TE actions/initiatives and their impacts produced throughout the project and use this knowledge to ensure long-term sustainability of the experimental activities commenced. The evaluation task comprises two distinct types of evaluations:

1. A process evaluation (formative evaluation, inspired by the deliberative democratic evaluation perspective), which is an ongoing evaluation for internal learning throughout the project. The process evaluation focuses on identifying enablers and barriers – as well as solutions to the latter – in the implementation phase of the different TEs. The process evaluation is carried out with the intension to assist the territorial partners in their efforts to secure a timely and successful implementation of TE actions and initiatives.
2. An impact assessment (summative evaluation, application of “theory-based evaluation”), which takes place towards the end of the project. This evaluation will assess the impacts of the TEs in terms of whether – and to which extent – expected changes have taken place, and provide knowledge about experimental actions in relation to ‘what works, for whom does it work, and in which circumstances does it work?’

The evaluation scheme presented in this report outlines a proposal for securing and collecting the data needed for analysis in the two evaluation tasks. Finally, the report includes a set of preliminary indicators intended for inspiration in the co-creation process of determining context specific success criteria/strategic priorities.

2. Introduction

The European and Horizon 2020-funded TeRRItoria project (Territorial Responsible Research and Innovation Through the Involvement of Local R&I Actors) aims to adapt and implement the approach of Responsible Research and Innovation (RRI) in regional and territorial R&I systems in five European countries. By bringing together a wide range of stakeholders in the development and implementation of five Transformative Experiments (TE) in four regions and one municipality, the project intends to address and mitigate territorial R&I challenges through the advancement of “Territorial RRI” (TeRRItoria 2019). The selected territories for experimentation are:

- Region of Central Macedonia (Greece)
- Region of Emilia-Romagna (Italy)
- Region of Trøndelag (Norway)
- Region of North East (Romania)
- Municipality of Gabrovo (Bulgaria)

The crosscutting issue of Responsible Research and Innovation is applied as an overall strategic framework to tackle local and regional R&I challenges through advancing the capacity of associated R&I systems to anticipate and be responsive to societal, scientific, and governmental transformations (TeRRItoria 2019). In this regard, the framework of RRI can be defined as an overall approach to addressing grand societal challenges related to e.g. health, climate, and security through responsible



governance of science, technology, and innovation processes, practices and outcomes that are in alignment with societal needs and expectations. Furthermore, RRI focuses on enhancing the collective accountability and engagement of all stakeholders in research and innovation processes whilst making them more open, sustainable, ethical, and inclusive. Developed and innovated through the 2000s, the RRI framework – as well as responsibility in research and innovation more broadly – have gained momentum within R&I research and policy systems within the last decade in particular (European Union 2014; Verdeguer 2016; Schomberg 2013; Stilgoe et al. 2013).

Territorial RRI, on the other hand, has not received equal attention as “social innovation” (Rip 2014, 2) to address local, regional, and territorial challenges related to the loss of territorial authority (re-territorialisation processes). This could be managing and mitigating transformations such as de-localisation of industrial productions, climate changes, and market globalisation, among other issues (Scholte 2005, 17; Caiati & Mezzana 2019).

Through the involvement of Quadruple Helix R&I actors (i.e. civil society organizations, research performing organizations, public authorities, businesses, and science mediators), and a close interlinkage with Smart Specialization Strategies (S3), the five experiments will focus on re-territorialisation efforts to promote territorial governance structures and mitigate territorial challenges. This is for instance related to; ‘the competitiveness of regional production in the global market’ (Region of Emilia-Romagna) and interlinking research-based innovations with regional needs (Region of Trøndelag), (TeRRItoria 2018; TeRRItoria 2019, cf. preliminary experiment descriptions in Kozarev & Damianova 2019).

Overall, the key objectives of TeRRItoria are:

- To introduce concrete and measurable changes in the R&I systems of the five territories.
- To develop a better understanding of how RRI can be adapted at the territorial level.
- To introduce concrete and measurable “institutional changes” (i.e. change in the functioning, rules, norms, or the like) in the territorial organizations involved in the project, so that RRI becomes an embedded element in their planning process.
- To contribute to the enhancement of the Smart Specialization Strategy process by exploring synergies with RRI (Territoria 2019).

2.1. Description of Task in the Grant Agreement

Against the backdrop of these main objectives, as well as the contextual background delineated above, Work Package (WP) 6 in the TeRRItoria project will perform an internal evaluation of the implementation of the experimental activities and the impacts produced through the project to ensure long-term durability and sustainability of the Transformative Experiments. The WP focuses on tailoring an inclusive and participatory evaluation design encompassing a set of criteria/indicators suited to capture and measure institutional/regional change. WP6 is divided into the following three tasks and associated deliverables (Cf. TeRRItoria 2019a Grant agreement, p. 30):

- Task 6.1 is aimed at developing the design of an appropriate evaluation scheme capable of embracing the complexities of the implementation of the TeRRItoria activities as well as handling versatility concerning goals and objectives of these change-oriented activities (D. 6.1. Evaluation Scheme, M.12)
- Task 6.2 focuses on the application of the evaluation scheme elaborated under T6.1. Using a combination of self-assessment questionnaires addressed to stakeholders and qualitative interviews, the implementation processes through which transformative experiments establish links between the general strategy of Smart Specialization and RRI will be examined. The formative evaluation will include elements related to implementation barriers and the results will



be fed back to the involved partners and stakeholders from the five regions (D. 6.2. Formative Evaluation, M.30).

- Task 6.3 assesses the impacts achieved through the transformative experiments. Assessment will be based on the scheme delivered in Task 6.1 and the results of the summative evaluation will be reported in D6.3. This report will also include reflections related to the sustainability of the change processes invoked by TeRRItoria, which can inform continued attention across the five regions involved.

2.2. Objectives and needs of the deliverable

Deliverable 6.1 outlines the approach to evaluate the five Transformative Experiments. Overall, the evaluation of activities will assess the implementation of TE actions/initiatives and their impacts produced throughout the project and use this knowledge to ensure long-term sustainability of the experimental activities initiated. The evaluation task comprises two distinct types of evaluations:

1. A process evaluation (formative evaluation), i.e., ongoing evaluation for internal learning throughout the project. The process evaluation focuses on identifying enablers and barriers – as well as solutions to the latter – in the implementation phase of the different TEs. The process evaluation is a tool to assist the territorial partners in their efforts to secure timely and successful implementation of TE actions and initiatives (cf. section 3).
2. An impact assessment (summative evaluation) of the TEs towards the end of the project. Measuring impact is challenging in projects with a relatively short time-span such as this. Consequently, this part of the evaluation will focus on the extent to which the territorial partners have reached the goals they established for the experiments and the extent to which they, and local stakeholders, have experienced change in their region and/or institution (cf. section 4).

At the time of writing, the territorial partners have recently initiated the first step of the co-design phase of the experiments (WP4) by launching a conceptual note that will reflect on potential experimental ideas and actions in each region and on how relevant stakeholders can be involved in the development, discussion, and elaboration of the experiments to address territorial challenges.

Timewise, the preliminary status of developing the individual TEs does not allow for the establishment of an inflexible evaluation scheme with fixed indicators. The process evaluation as well as the impact assessment needs to be adaptable to and monitor the TE design and implementation process in order for the evaluation to achieve its stated objectives of supporting and substantiating viable changes. In addition, to manage this process and the highly complex and versatile nature of the five experiments, a flexible, inclusive, and participatory evaluation design has been tailored to be able to consider a broad range of actions/interventions that are sensitive to variation in:

- Units of analysis (focus on institutions and regions/municipalities)
- R&I ecosystems
- Contexts (cultural, social, political, and economic)
- Experimental designs (different objectives and needs) and different RRI focus areas
- Alignment with individual Smart Specialization Strategies and governance innovation practices

The individual and contextual character of each experiment necessitates a design and a set of evaluative criteria dovetailed to each experiment. The evaluation is not intended for internal cross-case com-



parison but as a means to support and inform the reflexive and complex processes of designing, implementing, and continuing the experiments. In this regard, evaluations are well suited for understanding and giving meaning to experiences and social practices and for reassessing and reinterpreting these experiences on an informed basis (Dahler-Larsen 2012). While the different transformative experiments are regarded as individual units of analysis, collectively they may provide more wide-ranging and converging knowledge on implementing and transferring the principles of RRI to a territorial level.

The territorial partners will be included throughout the evaluation process starting with the particular evaluation design. This entails a co-design phase of defining the evaluation questions, the operational success criteria, and objectives to be evaluated, as well as the timing and practicalities of the data collection process (for further specifications, see below).

In the following sections, we describe the purpose and principles of the process evaluation and the impact assessment including their distinct approaches and activities. The report concludes with a preliminary catalogue of MoRRI, SDGs, and RRI indicators that may serve as inspiration for project partners in the process of establishing the various experimental objectives and criteria for evaluation. In the next step of the project process, the specific set of evaluative indicators will be identified and constructed in cooperation with the project partners in order to tailor them to the independent TEs/actions when these have been designed (cf. section 4.3)

3. Process Evaluation

While the evaluation literature identifies several evaluative forms, values, and approaches, evaluation can, overall, be defined as an applied research activity concerned with “the process of determining the merit, worth, and value of something or the product of that process” (Dahler-larsen 2012, 13; Hall & Hall 2004, 6, 28). In addition, evaluation refers to “a systematic, methodological and thus ‘assisted’ way of investigating and assessing an activity of public interest” (Dahler-Larsen 2012, 16).

The evaluation design specified for assessing the five experiments, and for providing processual feedback based on stakeholder values and objectives, combines the two main evaluation types of summative and formative approaches. Formative evaluations are applied to improve the activities initiated through well-timed feedback, assessing e.g. the feasibility and efficiency of such (program) activities. In turn, summative evaluations have to do with assessing the impact and effectiveness of the (program) activities in terms of whether the intended outcomes have been met at the end of the evaluation period (Hall & Hall 2004; Høgsbro 2004).

The distinction between formative and summative evaluation often equates the latter with being oriented towards judgement in determining achievements and the former with being oriented towards improving and assessing progress. While this may be a genuine difference in approach, both types of evaluations are concerned with judging and appraising the value of program (experiment) activities in terms of progress and the intrinsic and extrinsic values of output (expected changes).

Evaluative judgements are based on a set of criteria that depend on contextually established stakeholder values, principles, and preferences of moral and social-political character. Valuing is a “form of practice that is contextually sensitive and matches the selection of criteria and methods for determining them to the conditions and needs of the specific evaluation in question” (Schwandt 2015, 49). The overall model of the TeRRitoria evaluation is designed to:

- Serve several purposes by focusing on continuous learning/improvements and assessment of results.



- Approach the five experiments as five independent evaluation cases, taking into consideration variation in context, needs, and objectives.
- Implement a participatory and inclusive approach that relies on partners and stakeholders to determine the criteria (and values) by which each experiment is to be evaluated in alignment with the overall experiment objectives and strategic priorities.

3.1. Approach and guiding principles

As described earlier, the Transformative Experiments will take place in five different territorial settings with distinct geographies; cultural, social, political, and economic context and heritage; and with uniquely characterized research and innovation ecosystems and stakeholders (Kozarev & Damianova 2019; Brandstetter-Kunc 2019). The TEs will tackle different local challenges and have different designs to address them at both an institutional and a regional level. Each design will correspond differently with the specific Smart Specialization Strategy and existing governance innovation practices of the area in question. To manage contextual disparity and variation in strategic priorities, an open and flexible evaluation scheme has been developed. However, the detailed processes, tasks, and instruments of the evaluation scheme outlined in this deliverable are provisional as they will be further developed and specified concurrently with the co-design of the TEs.

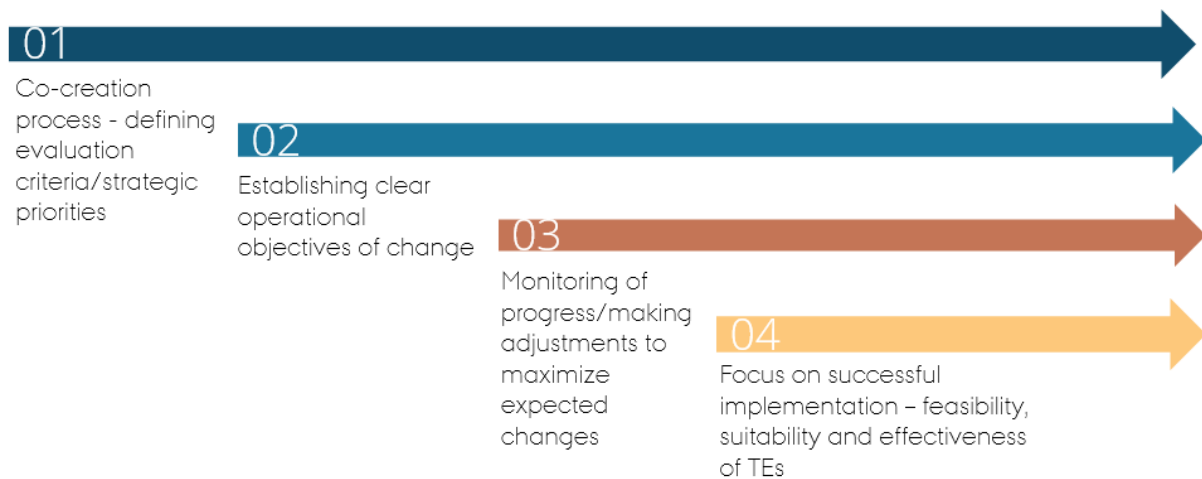
Within this framework, process evaluation focuses on the implementation part of the Territorial Experiments. It is oriented towards progress, dialogue, and ongoing learning, and through evidence-based data on feasibility and suitability of TEs, it provides directions for future action. By understanding and tracking the planning process, the logic of intervention, and the activities carried out, the process evaluation overall seeks to answer the following questions:

- To what extent are the Transformative Experiments being implemented as designed and intended?
- To what extent are the Transformative Experiments reaching their beneficiaries (targeted audiences/stakeholders)?
- Which types of adjustments have been fashioned to manage identified barriers?
- Whether and why are the activities implemented perceived to be working by the different stakeholders involved in the experiments?
- To what extent are activities implemented in a timely and feasible manner?

By monitoring the implementation process of the TEs, the purpose is to increase the awareness of potential challenges in time for adjustments in order to increase the overall success of the experiments. As illustrated in figure 3.1.1, the assessment of the quality of progress depends on a clear set of strategic priorities/objectives/criteria that are operationalized in a “measurable” fashion. Process evaluation predominantly makes use of qualitative methods as the intention is to gain in-depth and interpretative knowledge on often complex processes, interactions, and perceptions. In this case, we will also employ a qualitative research design in the process evaluation (cf. table 3.2.1 for specifications).



Figure 3.1.1. Main features of process evaluation aligned to TE evaluation



While evaluations are primarily empirically driven, a scientific theoretical framework (in addition to theory of evaluation) will inform the analytical findings of the evaluation to underpin the evaluation practice and add to the exploration and interpretation of the empirical data to understand the experimental impact and results. At this stage in the process, relevant theories to consult are program theory (how programs work); theories of change (how and why expected changes are realized) (Schwandt 2015) in addition to theories of organizational change, social science theories on globalization, and RRI, among others.

Process evaluations incorporate an interactive element due to the often increased interaction between evaluators and stakeholders/practitioners in not only defining the evaluation criteria but throughout the course of the evaluation. Different importance may be attached to the purposes of promoting a close relation to stakeholders and practitioners. Central reasons include the dimensions of a) increasing the application of the evaluation results, b) increasing the democratic dimension by including a broad range of stakeholders, c) increasing individual and organizational self-development, and lastly d) increasing evaluation capacity within organizations by building internal mechanisms for continuing appraisals (Krogstrup 2016, 155-156; Hall & Hall 2004, 46-47). For the present evaluation task, all four rationales are considered important, but the democratic dimension is an object of particular attention.

The process evaluation carried out within the TeRRItoria framework is inspired by the participatory deliberative democratic evaluation ideal (House and Howe 2000). This ideal is an evaluation perspective rather than a systematic evaluation model. It does not specify how to conduct a systematic evaluation in practice but includes a set of three intertwined democratic principles - inclusion, dialogue, and deliberation - for an evaluation to increase unbiased conclusions, i.e. impartiality and objectivity in terms of facts and value claims by focusing on a democratic inclusion of relevant stakeholder interest.

“In the deliberative democratic approach the evaluator is still in charge of the evaluation study and responsible for the findings, but stakeholder perspectives, values, and interests become an integral part of the study” (House and Howe 2000: 79)

Ideally, a deliberative democratic evaluation considers and *includes* all relevant stakeholder interests so as to minimize power imbalances. Hence, in order to obtain a comprehensive understanding of

stakeholder perspectives, evaluators should strive towards learning the real interests of everyone involved. Extensive *dialogue* with and potentially among stakeholders should be encouraged to understand such views and interests. The third requirement is *deliberation*; values should be subjected to examination in the evaluation and this will be expressed and formed through deliberation between participants with equal power with the objective of reaching valid conclusions (House and Howe 2000).

The predominant focus on stakeholder inclusion within the design of TeRRItoria and the individual TEs renders a 'dialogue and user involvement' evaluative approach particularly relevant, as this type of approach includes a distinct focus on involving users and stakeholders in the evaluation. The scale and scope of the five experiments, along with the sheer amount of internal and external participants and stakeholders, call for extensive collaboration and involvement to secure the information needed and validate the programme/TE data.

Compared to competence evaluation and empowerment evaluation, where the objective is to increase the competencies of front staff or empower citizens to clarify their needs (Krogstrup 2016), the most valuable perspective for the purpose of this evaluation, is the strong focus on improving evaluation outcomes through equal and democratic stakeholder participation.

Other evaluative approaches, such as responsive evaluation, also focus on involving participants and including a wide range of diverse interests, but the deliberative democratic evaluation approach, as a particular form of 'dialogue and user involvement' evaluation, is the approach with the strongest representation of the democratic and deliberative ideal (Krogstrup 2016). Moreover, the deliberative democratic evaluation approach interlinks the process and impact evaluation with its value- and principle-based ideal and provides a framework capable of integrating different evaluation models and methodologies (House & Howe 2000).

The democratic approach and its ideal of inclusive and equal evaluations is important to consider and strive for in the design and implementation phase of the process evaluation. The three guiding principles of inclusion, dialogue, and deliberation are not merely principal values, but are also operationalized into a set of evaluative questions, which pay particular attention to greater socio-political contexts, stakeholder diversity and power imbalances. House and Howe propose ten main questions to address to operationalize the principles into concrete measures for consideration: 1) Whose interests are represented? 2) Are major stakeholders represented? 3) Are any stakeholders excluded? 4) Are there serious power imbalances? 5) Are there procedures for controlling the imbalances? 6) How do people participate in the evaluation? 7) How authentic is their participation? 8) How involved are they? 9) Is there reflective deliberation? and 10) How considered and extended is the deliberation? (House and Howe 2000, 10-11). These questions complement the procedures outlined in the process and impact evaluation, thereby increasing efforts to reach a diverse set of targeted audiences whilst capturing the complexities of the Transformative Experiments, the implementation process, and the contexts in which the experiments will take place. The principles and particular approach of deliberative democratic evaluation also align well with the co-creation logic of the TeRRItoria project and its focus on openness, (policy) dialogue, deliberation, and mutual learning (TeRRItoria 2018, 8; Bijker 2006). Furthermore, the three principles of inclusion, dialogue and deliberation resonate well with the inclusive, responsive, anticipatory, and reflexive principles of RRI (Stilgoe et al. 2013) and the evaluative attention provided to stakeholders and process efficiency when evaluating Smart Specialization Strategies/regional policies (Tolias 2019).



3.2. Evaluation questions, activities, and data collection for the process evaluation

The following sections outline the main steps in the process evaluation and present a preliminary evaluation scheme that includes potential questions on what the evaluation team would like the territorial partners to reflect on, discuss with their stakeholders, and report back on in the different stages of the project and the evaluation phases (see table 3.2.1). The evaluation process, including the evaluation scheme, remains provisional at this stage of the project, and the specifics of each step in the process, as outlined below, will be further detailed and adapted through the TE co-design phase.

Overall, the process evaluation comprises the following seven steps:

Co-design phase

1. Mutual agreement between partners on the evaluation objectives and research questions
2. Mutual agreement between partners on the process evaluation instruments/process in terms of data collection
3. Partner identification of operational success criteria/TE objectives/intervention logic and targeted beneficiaries

TE Implementation phase

1. Data collection process (self-assessment questionnaires, document analysis (e.g. regional profiling) and qualitative semi-structured follow-up interviews)
2. Data analysis
3. Feedback to TE teams and stakeholders
4. Formative evaluation report (Deliverable 6.2, M. 30)

The evaluation is perceived as a joint effort and a tool for learning that should support the territorial partners in their endeavours to implement the Transformative Experiments. There is substantial overlap between the purposes and tasks of WP 4, WP 5, and the process evaluation as the support of the territorial partners is the primary task. To support the process and maximize the outcome of the experiments, it is suggested to collect evaluative data and input through already scheduled deliverables and virtual talks, to the extent possible, in order to integrate the reflective elements of the process evaluation into the co-design and implementation phase of the project. This will interlink and make the processes more efficient, utilizing the evaluative elements in the best way without them becoming cursory add-ons.

Furthermore, the extensive materials/mappings already produced in the analytical strand of the project will form part of the empirical grounding of the evaluation. These resources include a comprehensive mapping of each territorial milieu in question as well as reviews of the territorial R&I ecosystems (WP2). This information related to e.g. S3 context, governance structure, local and regional R&I challenges and opportunities, as well as particular challenges to be addressed by the Territorial Experiments are relevant documentation in terms of understanding the contextual background, circumstances, and rationale of the different experiments in both the mid-term (processual) and ex-post evaluation (impact assessment).

The evaluation can be seen as a three-phase course that corresponds to the timeline of the overall project: 1) a co-design phase where the transformative experiments are developed locally in cooperation with stakeholders (WP4). This runs from month 9 to 18. 2) An implementation phase (WP5), running from month 18 to 34. 3) A post-implementation phase towards the end of the project before delivery of D6.3 in month 36. For the purpose of the evaluation, we would like the territorial partners to reflect on some specific questions and report to us during the project.

Table 3.2.1 presents a number of interim questions, a timeline for when they should be reflected on, discussed, and reported, and suggestions for collecting these data. These are merely suggestions and



are likely to be refined through collective discussion and TE progression. In addition to the evaluative set of questions, the table conveys ways to collect data through existing project activities and proposes methods to collect additional data required to perform the process evaluation.

In the first phase (cf. step 1-3), the co-design phase, we encourage the territorial partners to map out their stepwise implementation plan, indicate which stakeholders to involve in the process and when, as well as what obstacles they foresee. This is to enable the evaluation team to follow the process of implementation, which we will later describe in the formative evaluation of D6.2, and continuously feed back to the territorial partners in order to support the process.

In this phase, we also ask the territorial partners to have an open discussion with all relevant stakeholders on what they consider the main strategic priorities and success criteria for their activities. What types of changes do they expect as a result of the experiments? These success criteria will be used in the summative evaluation towards the end of the project in D6.3, and it is important that the territorial partners and relevant stakeholders play an active role in setting the criteria on which the TEs will later be evaluated.

In the second phase (cf. step 4-6), the implementation phase, we will follow the implementation process to assess whether everything is going according to plan; whether obstacles have been experienced; whether the evaluation team can assist to overcome or accommodate them, among other questions. This main part of the process evaluation will be an ongoing conversation in virtual calls, e.g. in the already scheduled technical assistant meetings and/or bilateral meetings between the territorial partners and the evaluation team, and will be summarized in D6.2.

During this phase, we will continuously discuss the success criteria and whether they need to be changed or adapted to new circumstances, offer methodological support, and help the territorial partners collect the needed data to assess how the experiments are working. We also request the territorial partners to indicate preferred methods for how we may document observed changes, e.g. by constructing surveys or short interviews with collaborators or local stakeholders, by applying quantitative register data, and document analysis.





Table 3.2.1: Evaluation scheme – Process evaluation

Co-design phase Month 9 to 18		
Potential evaluative questions for the territorial partners	Data collection through existing tasks in other WPs	Additional WP 6 data collection activities
<p>Q1: What is the overall vision of the Transformative Experiment?</p> <p><i>Please break down this vision into manageable sub-tasks in a step-by-step implementation plan below. If possible, please indicate when these tasks are taking place.</i></p> <p><i>Think of what you want to achieve with these specific subtasks.</i></p> <p>Q2: What do you consider success criteria for each sub-task or step of the implementation?</p> <p>Q3: How can we assess whether the individual task or step was successful in your view – what kind of documentation do we need?</p> <p><i>Can we for instance collect survey responses from participants at an event or conduct short interviews with stakeholders, collaborators, or employees?</i></p> <p><i>Feel free to be inspired by, modify, or directly include some of the suggested indicators from the inspirational catalogue.</i></p>	<p>Please include the questions in the co-design process and discuss them with local stakeholders, so they too have influence on the evaluation. These questions can be introduced at some of the already planned events e.g.:</p> <ul style="list-style-type: none"> • The (at least) three bilateral meetings between the regional partner and stakeholder • The write-shop where the experiments will be drafted • The citizen summit where the draft will be discussed and validated <p>We suggest including a section reporting on these questions in D4.2: “Outline of the 5 Territorial Transformative Experiments”, which is due in month 18. This is to introduce an evaluation aspect in already scheduled work and avoid that the territorial partners need to use extra time to report separately to the evaluation team.</p>	<p>Potentially a set of bilaterally written follow-up questions if needed for clarification.</p> <p>We encourage territorial partners to integrate evaluative mechanisms into already planned actions and activities to underpin the learning and documentation stages of the project when it is perceived as feasible and beneficial for the process. For example, feedback questions could be included at the end of stakeholder meetings; there could be written summaries of events, or field notes.</p> <p>Furthermore, different reflection tools (e.g. related to RRI, evaluative practices), public engagement initiatives for stakeholder inclusion, among other mechanisms, could be applied to support the co-design phase.</p>

<p>Q4: What stakeholders do you plan to involve in the implementation process, when, and how?</p> <p>Q5: What are these stakeholders' tasks and responsibilities in the Transformative Experiment? <i>See also the ten questions stipulated by the deliberative democratic approach in section 3.1.</i></p> <p>Q6: What challenges do you expect to encounter in the implementation and how can they be overcome?</p>		
<p>Implementation phase Month 18 to 34</p>		
<p>Q1: Is implementation going according to plan?</p> <p>Q2: What is working well, what is working less smoothly?</p> <p>Q3: Have you encountered any obstacles and if so, how have you overcome them? What changes did you introduce to your original plan?</p> <p>Q4: What kind of help or resources, if any, do you need from other partners in the project?</p> <p>Q5: Are the success criteria you specified for your tasks still relevant or do we need to modify them?</p>	<p>These questions will be asked in continuous dialogue with the territorial partners through online conversations. To avoid additional meetings for the territorial partners, we suggest that an evaluation team member be present and include such questions in the bimonthly virtual technical assistant meetings between ASTER and the territorial partners, scheduled during this period.</p> <p>The evaluation team is always available for on-demand support in setting success criteria, identifying documentation, collecting and analysing data, documenting results and feeding them back to the territorial partners.</p> <p>The purpose is to allow the evaluation team to follow the implementation process, specifically the formative evaluation, and to describe this in process narratives for deliverables 6.2 and 6.3.</p>	<p>To assess the quality and feasibility of the territorial experiments, we suggest collecting evidence-based data through the following methods:</p> <p>Template/protocol provided from the evaluation team to document experiment implementation; potentially including field notes or similar types of material.</p> <p>Open and qualitative constructed self-assessment questionnaires tailored to each TE.</p> <p>Document analysis (primarily through mappings and reports produced throughout the project).</p> <p>Qualitative semi-structured follow-up interviews.</p>





4. Impact Assessment

The impact assessment conducted under the Territoria framework assesses the extent to which the expected changes of the territorial experiments have been realized. The impact assessment is designed to go beyond the question “do the experiments work?” and delve into the appertaining questions of “what works, for whom does it work and in which circumstances”? The theory-based evaluation (also denoted “realistic evaluation”, Pawson and Tilly 1997; theory driven evaluation, Chen 1990) inquires about the connections between intervention and effects to understand which underlying generative mechanisms lead to a successful outcome. Overall, the impact assessment wishes to gain insight into the accomplishments of the Transformative Experiments. Impacts depend on stated strategic priorities but could potentially entail new modes of multi-actor collaboration; new models of leaderships; institutional transformations on the territorial level, among others. Considering the time perspective of the TEs as well as their experimental character, their impacts should not only be viewed as immediate results/changes but also in a broader learning/transferability perspective related to RRI implementation and alignment with Smart Specialization Strategies.

In this regard, theory-based evaluations are both formative and summative as they may point to differences between expectations and implementation as well as shed light on intervention-effect correlations (Krogstrup 2016; Dahler-Larsen 2013). Theory-based evaluations are processual and oriented towards contextual matters as they are seen to influence how actions and decisions are “reasoned” and whether the generative mechanisms “work” within the particular setting. Hence, this type of evaluation complements the logic of the process evaluation and the logic of the TEs by focusing on complex processes *within* each case (TEs) in reference to particular societal/regional/organisational conditions.

4.1. Purpose and principles of the theory-based evaluation

A theory-based evaluation aims to formulate plausible explanations for which generative mechanisms lead to effective outcomes by understanding the complexity of the challenge(s) in question. Contextual conditions could be socio-cultural, economic, political, democratic, and institutional features, among others. The analysis therefore focuses on context-mechanism-outcome to establish impact in terms of which actions work under which circumstances. An outcome can also be non-expected effects. An initial definition of a program theory is paramount to theory-based evaluation.

The program theory outlines initial and very explicit substantiated assumptions about why and how an intervention (experiment) is expected to bring about change. Through a tailored data collection process, the evaluation “tests” whether the program theory works in practice. In other words, the evaluation tries to establish whether the intervention has been implemented according to the proposed theory of action (clarification of beneficiaries, resources/organization, and types of activities), and whether the assumptions described in the theory of change seem to be correct (Krogstrup 2016; Dahler-Larsen 2013). To help guide and construct the program theory (and establish assumptions about mechanisms), a number of sustainable indicators will be identified and constructed (see below).

4.2. Evaluation questions, activities, and data collection for the impact assessment

Like the process evaluation, the outline of the impact assessment remains provisional at this stage of the project. The details of each step, as delineated below, will be further specified and refined through the co-design phase of the five experiments. Overall, the impact assessment/theory-based evaluation proceeds in seven steps.

Co-design phase

1. Mutual agreement between partners on evaluation objectives and research questions.
2. Mutual agreement between partners on the theory-based evaluation instruments/processes in terms of data collection.
3. Definition and identification of sources for the programme theory. Partner assistance in the identification of explicit assumptions concerning the effects of the experiments.

TE Implementation phase

Post-implementation phase

4. Data collection process (self-assessment questionnaires, document analysis (e.g. regional profiling) and qualitative semi-structured follow-up interviews).
5. Data analysis.
6. Feedback to TE teams and stakeholders.
7. Summative evaluation report (Deliverable 6.3, M. 36).

To clarify the purposes and processes of the two evaluation tasks, the process evaluation and impact assessment, the report has been organised around a division of the two. While the impact assessment takes place towards the end of the evaluation course, the design and planning phase runs parallel to the design and planning phase of the process evaluation. Consequently, the data collection suggested in table 3.2.1 will also include questions and obtain knowledge to be applied in the assessment of the experimental results.

As indicated in table 4.2.1, we view the third phase of the evaluation as corresponding to a post-implementation phase towards the end of the project before the delivery of D6.3 in month 36. In this third and final post-implementation phase of the project, we will need the data and documentation secured through the implementation phase in order to write up the final summative evaluation in D6.3 by month 36. The data already collected during the project will be supplemented by follow-up interviews if needed to fill knowledge gaps and secure collection of relevant information as well as correct representation of stakeholder perceptions and reasoning of events, actions, and changes.

Like table 3.2.1, table 4.2.1 includes a set of preliminary evaluative questions and suggestions on how to collect data through existing project activities and through data collection methods designed for the impact assessment. As in the process evaluation, the data collected will rely on a self-assessment questionnaire, qualitative interviews, and document analysis. Both qualitative and quantitative succinct indicators will be identified, constructed, and adapted to fit the objectives and expected changes of the experiments.





Table 4.2.1: Evaluation scheme – Impact assessment

Post-implementation phase Month 34 to 36		
Potential evaluative questions for the territorial partners	Data collection through existing tasks in other WPs	Additional WP 6 data collection activities
<p>Q1: Have the overall goal or objectives for change that you defined in the beginning of the project changed along the way? If so: a) How has/have it/they changed? b) Why?</p> <p>Q2: How far are you in reaching the overall goal/expected changes?</p> <p>Q3: You have previously specified the following sub-tasks or steps in your implementation plan and indicated success criteria for each. In your opinion, did you reach your goals? <i>Please use the documentation and data that you have collected to elaborate on your answers.</i></p> <p>Q4: Have you observed any changes in your own organization that may be attributed to actions implemented through the Transformative Experiment?</p> <p>Q5: Have any unanticipated changes occurred in your organization?</p>	<p>We suggest including sections with targeted reporting on these questions in D5.1-D5.5, which are due in month 34.</p>	<p>Self-assessment questionnaires tailored to each TE.</p> <p>Document analysis (primarily though mappings and reports produced during the project); potentially field notes or similar types of material.</p> <p>Qualitative semi-structured follow-up interviews during month 35 to make sure we have all the necessary and correct information to finalize the summative evaluation by month 36.</p>

Q6: Have you observed any changes in the region (as a local area, not the administrative or political entity) that may be attributed to the Transformative Experiment?

Q7: Have any unanticipated changes occurred in your region (as a local area, not the administrative or political entity)?

Q8: Did any changes vary across different local stakeholders and how does that compare with what you expected or aimed for?





4.3. Inspirational catalogue of indicators

Table 4.3.1 encompasses a collective set of indicators that may offer inspiration for the co-creation of context-specific success criteria and determining the material needed to document the achievement of results. The preliminary selection of indicators includes relevant MoRRI-indicators (see Deliverable D.4.3 of the project [here](#)), Sustainable Development Goals (found [here](#)), and RRI-indicators from the Expert Group on Policy Indicators for Responsible Research and Innovation (see the report [here](#)).

The indicators are primarily developed for a national-level analysis and comparison but can be adapted to and used at the regional, local, or organizational level. We also encourage territorial partners to think of relevant territorial RRI indicators that connect RRI and territory making (see Caiati & Mezzana 2019, D3.3. of this project for inspiration, for instance section 2.8 on “Territorial RRI keys and dimensions in territory-making policies”). Inspirational indicators for achieving impacts regarding democratic R&I system and societal/organizational transformations can also be found in the project description (TeRRItoria 2018, 17-18). These indicators may offer guidance about which issues and success criteria the Transformative Experiments can seek to address and how to assess progress, especially with a view to longer-term effects.

The set of specific indicators to be applied in the evaluation will be identified and constructed in cooperation with the project partners in order to tailor them to the independent TEs/actions when these have been designed.

Table 4.3.1: indicators for inspiration	
Gender Equality	
MoRRI	GE1: Share of research performing organisations (RPOs) with a gender equality plan
	GE2: Share of female researchers by sector
	GE3: Share of Research Funding Organisations (RFOs) promoting gender content in research
	GE5: Share of RPOs with policies to promote gender in research content
	GE10: Number and share of female inventors and authors
SDGs	5.5. Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life <ul style="list-style-type: none"> ○ 5.5.2: Proportion of women in managerial positions ○ 5.c: Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels ○ 5.c.1: Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment
	4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations <ul style="list-style-type: none"> ○ 4.5.1: Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated
RRI indicators	Process indicators: <ul style="list-style-type: none"> ○ Percentage of research institutions (including universities) that (a) have gender equality plans and (b) provide documentation of their implementation ○ Percentage of research institutions that document specific actions that minimise/reduce barriers in work environment that disadvantage one sex (e.g. flexible work hours) ○ Percentage of research institutions that document specific actions aiming to change aspects of their organisational culture that reinforce gender bias ○ Percentage of research institutions that provide training/support for researchers in regard to the inclusion of gender dimensions in the content of research

	<p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ Percentage of women on advisory committees, expert groups, and proposal evaluation panels ○ Percentage of women in projects throughout the life cycle (in full-time equivalent) ○ Percentage of women who are principal investigators on a project ○ Percentage of women who are first authors on research papers ○ Percentage of research projects including gender analysis/gender dimensions in the content of research ○ Percentage of women taking part in research mobility programmes <p>Perception indicators:</p> <ul style="list-style-type: none"> ○ Perception of people working in R&I concerning gender equality, e.g. percentage of women in R&I who believe they have equal opportunities to pursue their careers in R&I in comparison to men
Science Education and Teaching	
MoRRI	<p>SLSE2: RRI-related training at Higher Education Institutions</p> <p>SLSE4: Citizen Science activities in RPOs</p>
SDGs	<p>4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p> <ul style="list-style-type: none"> ○ 4.3.1: Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex <p>4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</p> <ul style="list-style-type: none"> ○ 4.4.1: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill <p>4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, e.g., through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development</p> <ul style="list-style-type: none"> ○ 4.7.1: Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment
RRI indicators	<p>Process indicators:</p> <ul style="list-style-type: none"> ○ Inclusion of an initiative or requirement for RRI training in a research strategy/call/work programme (yes/no, percentage) ○ Capacity building for RRI-related training (existence, percentage of funds allocated) <p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ institutions/research disciplines: presence of RRI education/training ○ R&I project level: do they encourage or require RRI education/training (e.g. in an integrated ELSA model)? ○ Percentage of research projects with at least one educational resource deliverable ○ Percentage of research projects involving STEM teachers or students ○ Number of projects registered in the Scientix collaboration
Citizen Engagement and Stakeholder Inclusion	
MoRRI	<p>PE3: Citizen preferences for active participation in S&T decision making The indicator taps into the desired degree of citizen inclusion in making decisions about S&T</p> <p>PE5: Public engagement performance mechanisms at the level of research institutions</p> <p>PE6: Dedicated resources for public engagement</p> <p>PE7: Embedment of public engagement activities in the funding structure of key public research funding agencies</p> <p>PE8: Public engagement elements as evaluative criteria in research proposal evaluations</p>



SDGs	<p>17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p> <ul style="list-style-type: none"> ○ 17.17.1: Amount of United States dollars committed to public-private and civil society partnerships <p>16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels</p> <ul style="list-style-type: none"> ○ 16.7.1: Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions ○ 16.7.2: Proportion of population who believes decision-making is inclusive and responsive, by sex, age, disability and population group
RRI indicators	<p>Policies, regulation and frameworks:</p> <p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ Share of public engagement (PE) in R&I projects based on consultation, deliberation or collaboration <p>Perception indicators:</p> <ul style="list-style-type: none"> ○ Researchers' openness to pursue PE <p>Event and initiative making/attention creation:</p> <p>Process indicators</p> <ul style="list-style-type: none"> ○ Science events and cycles ○ Referenda and Danish-model activities. Organised debates ○ Museums/science centres. Informal settings ○ Citizen science initiatives ○ Crowdfunded science and technology development <p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ Media coverage ○ Social media/web 2.0 attention ○ Museum visits and impacts (on visitors, stakeholders, local communities) ○ Civil society organisation activities and impacts <p>Perception indicators:</p> <ul style="list-style-type: none"> ○ Engagement activities ("ladder of participation") ○ Interest in science <p>Competence building:</p> <p>Process indicators</p> <ul style="list-style-type: none"> ○ Training of communicators ○ Training of scientists/engineers ○ Science mediators <p>Outcome</p> <ul style="list-style-type: none"> ○ PR staffing ○ Social scientists collaboration (interdisciplinarity) ○ In-house/outsourced consultancies ○ The state of science journalism
Openness (Open Access and Open data)	
MoRRI	<p>OA1: Open Access Literature The indicator will calculate the number and share of publications with some "free" online accessibility (both in Gold and Green OA).</p> <p>OA2: Data publications and citations per country Primary data from the Data Citation Index to be acquired and used.</p> <p>OA3: Social media outreach/take up of Open Access Literature and open research data Primary data (i.e. Web of Science or Scopus data – and data collected in OA1 and OA2) + other secondary data (i.e. Mendeley and Altmetric.com)</p> <p>OA5: Funder mandates Funder/institutional mandates relate to the policy and practice of funding institutions giving research grants or of academic institutions to request that research output be made openly accessible.</p>

	OAG: RPO (HEI and PRO) support structures for researchers as regards incentives and barriers for data sharing
SDGs	<p>17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism</p> <ul style="list-style-type: none"> ○ 17.6.1: Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation <p>17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed</p> <ul style="list-style-type: none"> ○ 17.7.1: Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies <p>7.9: Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all sustainable development goals, including through North-South, South-South and triangular cooperation</p> <ul style="list-style-type: none"> ○ 17.9.1: Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries <p>16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements</p> <ul style="list-style-type: none"> ○ 16.10.2: Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information
RRI	<p>Process indicators:</p> <ul style="list-style-type: none"> ○ Documentation of open science policies ○ Documentation of institutional mechanisms for promoting open science ○ Documentation of mechanisms for learning from open science experience ○ Inclusion of open science measures in research policies and calls for proposals <p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ Percentage of research projects with a virtual environment that is updated and actively used with a threshold frequency (to be defined) ○ Percentage of data repositories that include explanation and commentary to facilitate use ○ Percentage of research projects with daily laboratory notebooks online ○ Percentage of research projects that report real added value by an open science mechanism (for themselves and/or other actors)
Ethics	
MoRRI	<p>E1a: Ethics at the level of Universities and Public Research Organisations</p> <p>E1b: Ethics at the level of Universities and Public Research Organisations (Composite indicator)</p> <p>E3a: Research Funding Organisations Index</p> <p>E3b: Research Funding Organisations Index (Composite indicator)</p>
RRI indicators	<p>Process indicators:</p> <ul style="list-style-type: none"> ○ Mechanisms for multi-stakeholder/transdisciplinary processes of appraisal of ethical acceptability (best practices) ○ Documented ELSI/ELSA project component for ethical acceptability (best practices) ○ Documentation regarding normative tensions related to research integrity policies and actions ○ Formal and actual scope of ethics review/IRB clearance <p>Outcome indicators:</p> <ul style="list-style-type: none"> ○ Documented change in R&I priorities attributable to appraisal of ethical acceptability ○ Percentage of research proposals for which ethics review/IRB clearance process requires substantive changes in grant application or second ethics assessment
Governance	
MoRRI	GOV2: RRI-related governance mechanisms within research funding and research performing organisation



	GOV3: RRI-related governance mechanisms within research funding and performing organisations – composite index'
RRI indicators	<p>Process indicators:</p> <ul style="list-style-type: none"> ○ Identification of formal and informal networks of R&I that promote RRI at both national and EU level ○ Activities of funders to promote RRI <p>Outcome indicators:</p> <p>For each network:</p> <ul style="list-style-type: none"> ○ number of RRI debates ○ number of RRI protocols ○ number of RRI policies ○ number of RRI agreements <p>and/or in general</p> <ul style="list-style-type: none"> ○ number of funding mechanisms to support RRI activities ○ amount of euros invested in RRI projects <p>Perception indicators</p> <ul style="list-style-type: none"> ○ Involvement of the wider public in RRI debates, measured, e.g., through social media ○ Involvement of the wider public in RRI policy, the development of policy, and/or protocols ○ Number of references in applications to RRI ○ Number of collaborative RRI projects

5. Conclusions

The report has specified the evaluation task outlined in WP 6 of the TeRRItoria project. It has described the two evaluation approaches to be applied to a) assist the territorial partners in their efforts to secure a timely and successful implementation of TE actions and initiatives, and b) to assess the extent to which the experiments have created desired changes and produced knowledge about what works, for whom, and in which circumstances. The evaluation scheme has also outlined a proposal for securing and collecting the data needed for analysis.

6. References

- Bijker, Wiebe E. (2006): *Science and Technology Policies Through Policy Dialogue*. In, Louk Box and Rutger Engelhard (eds). *Science and Technology Policy for Development, Dialogues at the Interface*. London: Anthem Press.
- Brandstetter-Kunc, A. (2019). *Map of the state of the art of R&I ecosystem in 5 territorial areas. Deliverable 2.3*. TeRRItoria Project.
- Caiati, G. & Mezzana, D. (2019). *Map of Approaches, Policies and Tools for Territorial RRI. Deliverable 3.3*. TeRRItoria Project.
- Dahler-Larsen, P. (2012). *The Evaluation Society*. Stanford University Press: California 2013.
- Dahler-Larsen, P. (2013). *Evaluering af projekter – og andre ting, som ikke er ting*. [Evaluation of Projects – and Other Things that are Not Things]. Odense: Syddansk Universitetsforlag.
- Chen, H-T. (1990). *Theory-Driven Evaluation*. Thousand Oaks, CA: Sage Publications.
- European Commission (2018). *The Evolution of Responsible Research and Innovation in Europe: The MoRRI indicators report (ANNEX) D4.3*.



- European Union (2014). *Responsible Research and Innovation. Europe's ability to respond to societal challenges*. Available at: https://ec.europa.eu/research/swafs/pdf/pub_rri/KI0214595ENC.pdf
- Hall, I. & Hall, D. (2004). *Evaluation and Social Research. Introducing Small-Scale Practice*. New York: Palgrave Macmillan.
- House, Ernest, R. & Howe, Kenneth R. (2000): Deliberative Democratic Evaluation. *New Directions for Evaluation*, no. 85.
- Høgsbro, K. (2004). *Procesevaluering* [Process Evaluation]. In, Olaf Rieper (ed.). *Håndbog i evaluering* [Handbook in Evaluation]. København: AKF Forlaget.
- Kozarev, V. & Damianova, Zoya (2019). *Map of the TeRRItorial Milieux. Deliverable 2.2*. TeRRItoria Project.
- Krogstrup, H. (2016): *Evalueringmodeller* [Evaluation models], 3rd edition. København: Hans Reitzels Forlag.
- Pawson, R. & Tilly, Nick (1997): *Realistic Evaluation*. London: Sage Publications.
- Rip, A. (2014). The past and future of RRI. *Life Sciences, Society and Policy*, 10:17.
- Scholte, Aart, J. (2005). *Globalization: A Critical Introduction*, (2nd edition). New York: Palgrave Macmillan.
- Verdeguer, Ignasi, L (ed.), (2016). *A Practical Guide To Responsible Research and Innovation: Key Lessons From RRI Tools*. "la Caixa" Foundation.
- Von Schomberg, R. (2013). A Vision of Responsible Research and Innovation. In R. Owen, Hents, M., & Bessant, J. (eds). *Responsible Innovation*. Wiley.
- Schwandt, T. (2015). *Evaluation Foundations Revisited*. Stanford University Press: California.
- Spaapen, J. (Rapporteur), (2015). *Indicators for promoting and monitoring Responsible Research and Innovation. Report from the Expert Group on Policy Indicators for Responsible Research and Innovation*. Directorate-General for Research and Innovation. Luxembourg: Publications Office of the European Union.
- Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a Framework for Responsible Innovation.
- Sustainable Development Goals (2020). Available here: <https://sustainabledevelopment.un.org/post2015/transformingourworld>
- TeRRItoria (2018). Project Description. Horizon 2020. EU Commission.
- TeRRItoria (2019). *TeRRItoria – Project Logic: Introductory Note – Objectives, Structure and Critical Issues*, Feb. 2019.
- TeRRItoria (2019a). TeRRItoria Grant Agreement. Horizon 2020. EU Commission.



Tolias, Y. (2019): *Position Paper on S3 Evaluation*. Luxembourg: Publications Office of the European Union.

