RRI LEADERS

RESPONSIBLE RESEARCH AND INNOVATION IN TERRITORIES

Deliverable 2.1

MAP ON STAKEHOLDER RELATIONSHIPS AND INTERDEPENDENCIES AND REPORT ON STAKEHOLDER NEED, INTEREST, POWER AND INFLUENCE

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Map on stakeholder relationships and interdependencies and report on stakeholder need, interest, power and influence

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RRI-LEADERS Partners

NO	PARTNER'S NAME IN ENGLISH	PARTNER'S NAME IN NATIONAL LANGUAGE	PARTNER'S SHORT NAME
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P2	UNIVERSITY OF WESTERN MACEDONIA	PANEPISTIMIO DYTIKIS MAKEDONIAS	UoWM
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P4	THE CATALAN FOUNDATION FOR RESEARCH AND INNOVATION	FUNDACIO CATALANA PER A LA RECERCA I LA INNOVACIO	FCRi
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P8	MUNICIPALITY OF THALWIL	GEMEINDE THALWIL	THA
P9	ECONOMIC DEVELOPMENT AGENCY OF SABADELL CITY COUNCIL	PROMOCIO ECONOMICA DE SABADELL	PES SL

Contents

List of Tables

List of acronyms / abbreviations used in this document

CSR – corporate social responsibility

EU – European Union

RRI - Responsible Research and Innovation

AIRR – Anticipation, Inclusiveness, Reflexivity, Responsiveness

GEP – Gender equality plan

ICT – Information and communication technologies

NGO – Non-governmental organisation

NUTS2 – (in French) Nomenclature des unités territoriales statistiques); in English - Nomenclature of Territorial Units for Statistics

R&I – Research and innovation

RWM – Region of Western Macedonia

RIS3 – Regional innovation strategy for smart specialisation

RRI – Responsible research and innovation
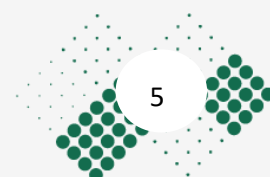
S3 – Smart specialisation strategy

SME – Small and medium-size enterprise

STEM – Science, technology, engineering, and mathematics

WP – Work package

About the project

The project "Leveraging Leadership for Responsible Research and Innovation in Territories" (RRI-LEADERS) explores the relevance of responsible research and innovation (RRI) to territorial governance in four European territories, representing different cultural and socio-economic backgrounds, different scope of territorial oversight, different institutional and decision-making infrastructures, different R&I landscapes and different dynamics among territorial actors.

The objectives of RRI-LEADERS are:

- to facilitate the adoption of RRI principles within territorial governance;
- to promote innovative, inclusive and responsive multi-actor approach to the development of policies on issues related to science and innovation; and
- to provide an evolutionary perspective on the future of RRI in territorial policy and governance.

The central goal of RRI-LEADERS is to elaborate future-oriented strategy and action plans, or territorial outlooks, for the future potential of RRI as a guiding framework in territorial R&I governance. Outlooks will be developed through a multi-stage co-creation process, which will mobilise quadruple-helix stakeholders, i.e. academia, policymakers, industry and civil society, from the participating territories.

RRI-LEADERS involves four different territories: Sofia (Bulgaria), Thalwil (Switzerland), Western Macedonia (Greece) and Sabadell (Spain), representing a diverse range of opportunities and implications for responsible research and innovation (RRI), which will enable to carry out a thorough assessment of the RRI relevance to territorial governance. The involved territories will thus act as demonstrators for the potential of RRI on sub-national level. The accumulated knowledge will be used to chart a detailed outlook for the future potential of RRI as a guiding framework in territorial governance of R&I and will aim to provide an evolutionary perspective on RRI for the Horizon Europe programme.

The project adopts the dominant understanding of RRI, as defined by von Schomberg: "A transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products."[1] It diverges only slightly from this definition in that it does not promote the separation of innovators from the rest of the societal actors, and instead seeks to include societal actors as co-creators in the innovation processes, and enable leadership in the development of policies with a future outlook. In doing so, RRI-LEADERS interpretation of RRI, draws heavily on the extension of the RRI framework proposed by Stilgoe, Owen and Macnaghten, who emphasise the prospective notion of responsibility by introducing four dimensions of RRI – *anticipation, inclusiveness, responsiveness* and *reflexivity*, largely known as the AIRR

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[1] von Schomberg, R. (2011). "Prospects for technology assessment in a framework of responsible research and innovation". In: Dusseldorp, M., Beecroft, R. (Eds.), *Technikfolgen Abschätzen Lehren: Bildungspotenziale Transdisziplinärer*. Vs Verlag, Methoden, Wiesbaden.

dimensions.[2] RRI-LEADERS integrates these four dimensions into its methodological design and operational implementation.

RRI-LEADERS attempts to leverage leadership through three complementary tiers of planned intervention around RRI. For each of these tiers the RRI-LEADERS exemplifies leadership as a proactive, shared and responsible taking of action towards setting ambitions for change and societal transformations, driving collaboration and agreement across societal actors, and striving for excellence and lasting impact in the pursuit of these ambitions. The three tiers of leadership intervention are interlinked into an operational progression, whereby each tier supports and enables the others as the project progresses:

1. Leveraging leadership in understanding of RRI proliferation and opportunities in the four territories.
2. Leveraging leadership in examining RRI construct relevance to territorial applications and its transformative potential.
3. Leveraging leadership in the reaffirming of the RRI concept with a view of providing tighter integration of territorial aspects into a renewed RRI construct.

Website of RRI-LEADERS: www.rri-leaders.eu

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[2] Stilgoe, J.; Owen, R. & Macnaghten, Ph. (2013). "Developing a framework for responsible innovation". In *Research Policy*, vol.42(9), pp.1568-1580.

1. Executive Summary

This document represents RRI-LEADERS Project **Deliverable 2.1 (D2.1) Map on stakeholder relationships and interdependencies and report on stakeholder's need, interest, power and influence** and provides a summary of the findings from the in-depth mapping of the four participating territories (municipalities of Sofia and Thalwil, region of Western Macedonia and city of Sabadell), from the perspective of Responsible Research and Innovation.

The RRI-LEADERS partners employed two data collection methods during the mapping: in-depth semi-structured interviews and focus group discussions. The stakeholders participating in the interviews and focus groups covered the entire range of the quadruple helix: academia and research institutions, policy makers, industry and business, and civil society. The semi-structured interviews enabled the partners to map stakeholders' experience related to RRI framework, as well as to the dimensions of anticipation, inclusiveness, reflexivity and responsiveness (AIRR), i.e. RRI-AIRR approach, and identified opportunities for the integration of RRI-AIRR approach in the territorial development policies. The objective of the focus groups was to further explore and verify the findings from the analysis of the interviews. In all four territories, 90 in-depth interviews were conducted, while 49 stakeholders attended the focus groups.

The mapping process resulted in two immediate outputs: 77 stakeholder profiles (presenting the organisations, whose representatives were interviewed or participated in the focus groups) and 19 good practices descriptions.

Summary of results of the mapping of **research and academia organisations** from the four participating territories:

- The RRI framework is well known by the representatives of research and academia organisations.
- Open access is of high importance for all research organisations and many have internal organisational policies on open access. While open access to research results is not an issue, policy on open access to research data still needs to be further developed.
- Ethics is a prominent issue in all research and academia institutions and is practiced diligently, sometimes monitored through ethics committees, and often formalised in internal codes of research ethics.
- Gender equality is not perceived as a problem, although it is mostly understood in terms of equal number of men and women in research and academia, which is a too narrow understanding.
- Public engagement does not have a major role in setting the educational and research agenda of the universities and research institutes, and remains largely limited to research projects that require engagement with specific societal groups.
- Science education (in most cases understood as STEM) is perceived as a key aspect for the overall territorial developments. Science communication emerged as a topic in some of the interviews, and its importance for building trust in science among the general populations was stressed upon.
- Anticipation is in the nature of research. Being able to recognise social problems at an early stage can help shape R&D-based solutions concerning the policy topics.
- Inclusiveness is mostly focused on research community and experts, and it is insufficient in terms of citizen inclusion.

- Responsiveness and reflexivity are very prominent dimensions in the research organisations as they are applied by focusing on and addressing the needs of the local community.

Summary of results of the mapping of **policy makers and societal stakeholders** from the four participating territories:

- The overall RRI framework is not well known by the policy makers, although some of the RRI keys are recognised as important and have their place in the selected policy areas.
- Open access is a very important key that drives change, and is vital to accelerate progress and support innovations.
- Respondents noted the gender disbalance in the regional and local politics, as the number of women who are involved as community leaders or active politicians is still insufficient.
- Public engagement is key to facilitate the progress of the policy development and implementation of the chosen policy areas. There is an expressed need for more awareness raising and involvement of the population in various measures for policy implementation.
- Anticipation allows to establish territorial strategies and dynamics in collaboration with other stakeholders. Science-based policy making as well as visioning and long-term strategies are perceived as crucial for the overall development policy of the participating territories.
- Responsiveness and reflexivity are two dimensions that need to be improved, since during the interviews a number of barriers to their application have been identified.
- Inclusiveness also appears to be an important issue. Several good practices of participative consultations with stakeholders were mentioned.

Summary of results of the mapping of **businesses and business organisations** from the four participating territories:

- Very few business people know about the RRI framework, however, many of the business interviewees noted that some of the RRI keys are practiced in their companies.
- Ethics is formalised through codes of conduct and in-house policies for corporate social responsibility, and practiced through ethical commitments to products, security, environmental protection, and respect of human rights.
- Public engagement is not practiced by the businesses.
- Open access is very important as data is considered a driver, which accelerates the innovation processes and improves the quality of end products and technologies.
- Science education is considered an important element for development of the economy and the research and innovation eco-system, but in very few cases the interviewees reported about collaboration with research and academia.
- Anticipation and responsiveness are not sufficiently incorporated into the business strategies.
- Reflexivity is de facto implemented since it is an inherent part of the innovation process and assessment. It is applied through monitoring and evaluation of companies' policies and practices.
- Inclusiveness is perceived as important. Some business practices, which are related to inclusiveness, are collaboration with other stakeholders (customers) in planning and designing new products or services, and receiving feedback from customers.

2. Introduction

RRI-LEADERS: Leveraging Leadership for Responsible Research and Innovation in Territories, involves four different territories: Sofia (Bulgaria), Thalwil (Switzerland), Western Macedonia (Greece) and Sabadell (Spain), representing a diverse range of opportunities and implications for responsible research and innovation (RRI), which will enable to carry out a thorough assessment of the RRI relevance to territorial governance. The involved territories will act as demonstrators for the potential of RRI on sub-national level. The accumulated knowledge will be used to chart a detailed outlook for the future potential of RRI as a guiding framework in territorial governance of R&I and will aim to provide an evolutionary perspective on RRI for the Horizon Europe programme.

The project adopts the dominant understanding of RRI, as defined by von Schomberg: "A transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products."[3] It diverges only slightly from this definition in that it does not promote the separation of innovators from the rest of the societal actors, and instead seeks to include societal actors as co-creators in the innovation processes, and enable leadership in the development of policies with a future outlook. In doing so, RRI-LEADERS interpretation of RRI draws heavily on the extension of the RRI framework proposed by Stilgoe, Owen and Macnaghten, who emphasise the prospective notion of responsibility by introducing four dimensions of RRI – *anticipation, inclusiveness, responsiveness* and *reflexivity*, largely known as the AIRR dimensions.[4] RRI-LEADERS integrates these four dimensions into its methodological design and operational implementation.

The overall implementation of RRI-LEADERS builds on the following methodology:

■ *RRI Audits in the involved territories and partners*, which starts off the first stage of the co-creation approach in RRI-LEADERS. The partners will establish a clear baseline of existing practices and policy developments in the four territories that have already integrated or have the potential to integrate the RRI keys and the AIRR dimensions (anticipation, inclusiveness, reflection and responsiveness), thus providing the grounds for mainstreaming the RRI-AIRR approach in relevant policy goals, implementation routines, and territorial (municipal/regional) strategies.

■ *Delphi exploration of consensus about future orientations for RRI in the participating territories* defines another stage of the RRI-LEADERS' co-creation process. The Delphi method will be used to assess dissensus and barriers, and to develop consensus about possible and feasible future pathways for a better RRI-AIRR integration for each territory.

■ The RRI-LEADERS co-creation process is not strictly linear. The next step in the process is the *Development of RRI-AIRR transformative outlooks in the participating territories.* For each participating territory a

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[3] von Schomberg, R. (2011). "Prospects for technology assessment in a framework of responsible research and innovation". In: Dusseldorp, M., Beecroft, R. (Eds.), *Technikfolgen Abschätzen Lehren: Bildungspotenziale Transdisziplinärer*. Vs Verlag, Methoden, Wiesbaden.

[4] Stilgoe, J.; Owen, R. & Macnaghten, Ph. (2013). "Developing a framework for responsible innovation". In *Research Policy*, vol.42(9), pp.1568-1580.

transformative outlook will be conceived, conceptualised, subjected to public scrutiny and validation through the involvement of non-organised and non-institutionalised citizens and community groups.

- A horizontal action of *Policy learning and evaluation* runs throughout the project, and will integrate insights from the previous activities and will promote a shared and future-oriented vision for RRI as a territorial leadership framework.
- To communicate effectively with its target groups, and to support the diffusion and exploitation of RRI-LEADERS policy outcomes, the partners dedicate efforts to streamline all strategic *communication and dissemination activities*. RRI-LEADERS partners will develop the tools to ensure that RRI-LEADERS' results reach out to the broadest range of interested audiences both within the participating territories and to a broader policy audience across the countries involved and to the EU.

The present document represents *Project Deliverable 2.1 Map on stakeholder relationships and interdependencies and report on stakeholder need, interest, power and influence*. The report features the following chapters:

- Chapter 2, the introductory chapter, presents the overall methodological approach of RRI-LEADERS.
- Chapter 3 explains the methodology behind the RRI audits in the participating territories, more specifically the methodology on mapping the territorial R&I eco-systems and stakeholders.
- Chapters 4 to 7 encompass the mapping reports of the four participating territories.
- The final chapter 8 presents a summary of the observations for all four territories and concludes with some key considerations to the transformative outlooks.

3. Methodology

The current report is elaborated under *WP2 RRI Audits in the involved territories and partners*, Task 2.1 *Mapping of territorial R&I eco-systems and stakeholders*. WP2 aims to establish a clear baseline of existing practices and policy developments (in the policy areas chosen by the participating territories) that have the potential to integrate the RRI keys and AIRR dimensions (RRI-AIRR approach). WP2 provides a launching point for mainstreaming RRI-AIRR approach in relevant policy goals, implementation routines, municipal / regional strategies. It will lay the foundation for understanding how territorial actors in the chosen policy areas might benefit from the adoption of the RRI-AIRR approach.

The policy focus of the participating territories is as follows:

- **Region of Western Macedonia, Greece**: Clean energy, Energy markets, Economic transition towards a low-carbon economy.
- **Sofia Municipality, Bulgaria**: Support to innovation, Digital transition and new skills, Youth employment and entrepreneurship, and Sustainable urban development.
- **Municipality of Thalwil, Switzerland**: Energy transition, focused on reducing the use of fossil fuels and hence the greenhouse gas emissions, and reducing the total energy consumption on the territory of the municipality.
- **City of Sabadell, Catalonia, Spain**: Building an inclusive innovation ecosystem through different methodologies which will directly improve the territorial specialisation in design applied to industry in a sustainable scope.

WP2 comprises four tasks.

- Task 2.1 focuses on the mapping of territorial R&I eco-systems and stakeholders.
- Task 2.2, the mapping of the RRI systems discourse in the involved territories, focuses on further exploration/understanding of the relationships between the stakeholder organisations and society at large, within the chosen policy areas in the participating territories, from the perspective of RRI.
- Task 2.3, RRI audit reports of the involved territories, integrates the findings from the activities in Task 2.1 and Task 2.2 and will produce one analytical report per territory on the state-of-play regarding RRI keys and AIRR dimensions.
- Task 2.4, internal RRI reviews in the partners' organisations, will produce a short report for each project partner outlining the areas for targeted measures towards integrating RRI-AIRR approach in their internal policies and practices.

Task 2.1 has two objectives:

- To create a systematic map of territorial stakeholders, and where relevant national stakeholders, which represent a variety of different perspectives to RRI.
- To establish the relevance of RRI to the chosen policy focus in the involved territories.

For achieving these objectives, the RRI-LEADERS partners employed two data collection methods: in-depth semi-structured interviews and focus-group discussions.

The stakeholder organisations were nominated from the existing consortium partners' organisational networks, taking also into consideration that all societal actors had to be covered, such as academia and research institutions, civil society organisations, policy makers and the business sector. In each territory 20-25 in-depth semi-structured interviews were conducted. The semi-structured stakeholder interviews enabled the partners to map stakeholders' experience related to RRI-AIRR and identified opportunities for the integration of RRI-AIRR approach in the territorial development policies.

To best address the specifics of each stakeholder group, three questionnaires for semi-structured interviews were designed, as follows: (i) questionnaire for research and academia stakeholders, (ii) questionnaire for companies and organisations of businesses, and (iii) questionnaire for policy maker and civil society organisations. During the interviews the project partners also aimed to identify RRI practices.

Based on the discussions during the interviews the following categorisation was made for each territory:

1) stakeholders with high levels of interest in relation to RRI in practice,
2) stakeholders with high levels of experience in RRI,
3) stakeholders with high levels of power, and
4) stakeholders with high levels of influence on RRI in practice.

To abide by the GDPR and the ethical guidelines of RRI-LEADERS project, the partners elaborated an invitation letter, an information sheet and an informed consent form for both the semi-structured interviews and for the focus-group participants. These were initially drafted in English, and then the partners translated them in their national languages.

Table 1: Number of interviews per territory and per stakeholder group

Number of interviews per territory and per stakeholder group				
Stakeholder groups	**Region of Western Macedonia, Greece**	**Sofia Municipality, Bulgaria**	**Municipality of Thalwil, Switzerland**	**City of Sabadell, Catalonia, Spain**
Research and academia	8	5	2	8
Policymakers and Civil Society Organisations	12	13	11	3
Businesses	8	8	6	6
Total	**28**	**26**	**19**	**17**
Total number of in-depth interviews for all four territories	**90**			

The second step in the implementation of Task 2.1 was the organisation of one focus group in each of the four participating territories, with 10-12 participants. The objective of the focus groups was to further explore the findings from the analysis of the in-depth interviews. The duration of these events was two and a half hours.

The mapping process resulted in two immediate outputs: stakeholder profiles (presenting the organisations, whose representatives were interviewed or participated in the focus groups) and good practices descriptions for each of the participating territories.

Table 2: Number of stakeholder profiles and good practices

	Region of Western Macedonia, Greece	Sofia Municipality, Bulgaria	Municipality of Thalwil, Switzerland	City of Sabadell, Catalonia, Spain
Stakeholder profiles	15	26	19	17
Good practices	4	5	3	7

The following chapters – chapters 4 to 7 – present the summary mapping reports of the participating territories.

4. Mapping Report for the Region of Western Macedonia

4.1 Region of Western Macedonia: introduction and policy focus

Western Macedonia Region, Greece

Hellenic Republic
Region of Western Macedonia

Western Macedonia occupies part of the north-western Greek area on the border with Albania and Northern Macedonia. Its area amounts to 9,451 km² (7.2% of the country) and is the only land-locked Greek Region. Due to its geographical position, it serves as a gateway for Greece and the EU to the Western Balkans. As a result, trans-European and national road network improvements, Western Macedonia can become a single Balkan area of cooperation and development.

It plays a central role in the national economy as the leading area of

Western Macedonia

electricity generation. With a permanent population of 282,120 inhabitants, as per 2011 Census data, it is sparsely populated with 30 inhabitants/km² vis-à-vis the national average density of 81.75. The analysis of demographic data highlights the trend of population decline and population ageing.

The Region of Western Macedonia (RWM) in terms of GDP in 2018, is ranked 11th among the Regions of Greece. Between the years 2013 and 2018, the GDP of the Region decreased by 9%, which is the highest percentage among the Regions of the country, while in relation to the EU-28 average it is at 49%. Overall, for the RWM, between the years 2013 and 2018, there was a significant loss of competitiveness, in terms of the size of the economy of the region, both in absolute and relative terms.

The economy of the Region of Western Macedonia has been in a phase of transformation since 2013. The Revealed Comparative Advantage (RCA) index shows strong specialisation in labour-intensive sectors and industries and a low degree of diversified production structure, with a low, less than one, peripheral multiplier. As a result, an increase in local demand does not lead to an increase in local supply (OECD). In addition, the RWM shows a very low score in the composite Regional Competitiveness Index (RCI).

At European and national level, Western Macedonia records particularly unfavourable employment rates. More specifically, in the employment of the 20-64 age group, 52.7%, it is ranked in the last position compared to the other Greek regions and in the 314th place in Europe. It has a high unemployment rate, 24.6% in 2019, which is higher compared to 21.39% in 2015. Unemployment mainly affects young people. Youth employment rate is 29.1% - the 1st place at national level and in the 2nd place at European level. The long-term unemployment rate fell by 14.41%, but it still is ~72% of unemployed people, which explains the proportion of the population at risk of poverty and exclusion rising to 37% (OECD).
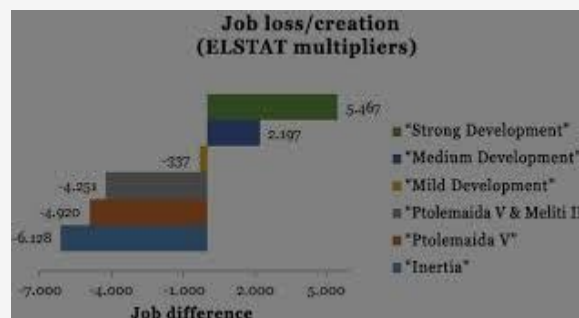
The share of the energy sector in the GVA of Western Macedonia has been stable (over 30%) both before and during the economic crisis, with the mining, energy and water sector contributing 38.65% of the total GVA of Western Macedonia. The de-lignitisation of the regional economy is the most serious development in the current period. Lignite activity directly and indirectly contributes to the economy of the regional units of Kozani and Florina by almost EUR 1.7 billion and contributes to the employment of almost 17,000 people providing 30% of the jobs of the two regional units. Additionally, it supports the operation of more than 800 companies, whose turnover is estimated to exceed EUR 405 million (ESDAM Plan, data 2019). Taking into account the total impact, the de-lignitisation is estimated to lead to a reduction of the GVA of the regional units of Kozani and Florina by EUR 1 billion and employment by 10,000 people approximately. In addition, the number of companies and the turnover of the regional units of Kozani and Florina, which is estimated to be also affected, amounts to EUR 610 million and EUR 319 million respectively (ESDAM Plan).

Policy areas in the focus of RRI-LEADERS project

Western Macedonia is committed to developing a stakeholder engagement strategy within the course of the post-coal transition road map. This can be achieved by strengthening policy-making systems involving different modes of territorial governance of the post-coal transition strategy. Specific efforts are needed to develop a methodology aiming to a smooth and innovative transition from the coal value chain towards an alternative development 'paradigm'.

The ambition is to foster policies for encouraging innovation, regional growth and the upgrading of public services for citizens by motivating regional networks and clusters into implementing innovative ideas and policies. To this end, national policies and strategies have to be influenced at all governance levels towards an evolutionary perspective in territorial policy. It is also necessary to reflect on regional strategies concerning enabling multi-actor collaboration in specific policy areas, and transfer know-how and best practices related to the integration of the RRI policy framework and the application of its principles from the EU to the local level.

The three policy areas chosen by the Region of Western Macedonia for the RRI-LEADERS project include (1) developing a stakeholder engagement strategy within the course of the post-coal transition road map, (2) strengthening policy-making systems involving different modes of territorial governance of the post-coal transition strategy, and (3) developing a methodology aiming at a smooth and innovative transition from the coal value chain towards an alternative development 'paradigm'.

Through the RRI-LEADERS project, the RWM aims to exemplify an inclusive, multi-stage, multi-actor, interdisciplinary co-creation process that enhances territorial resilience, within the post-coal transition strategy in the area. It also has the ambition to develop decision-making capacities and decision-making tools for policy makers, placing the emphasis on territorial government within the post-coal transition strategy, scoping into the post-coal transition strategy documents in Western Macedonia.

4.2 Summary of the interviews with stakeholders in the Region of Western Macedonia

A total of 28 interviews were conducted, including interviews with policy makers, representatives from the research sector and entrepreneurs from the region of Western Macedonia. The interview questionnaires were adapted to the topic of energy transition. Questions on the topic of RRI (RRI key and the AIRR dimensions) were addressed to the various stakeholders. The interview participants were selected on the criterion of having strong relevance to the topic of the energy transition, and being able to identify the cornerstones and levers of the community concerning this policy topic. The findings from the interviews are presented below in the three categories of research, policymakers and civil society, and business.

Research and academia

Interviews with research and academia organisations: Interviewees were from different departments of the University of Western Macedonia and from the National Centre for Research and Technological Development (CERTH). Regarding the concept of responsible research and innovation, it was mentioned that because the academic and research activities objectively generate new knowledge, this process must include a well-established dimension of whether this new product/service affects social parameters. The process that leads researchers to new knowledge generation should include in its design this notion of responsibility, that is, to consider the possible effects on the social environment. Moreover, responsibility means that research results have the proper direction of environmental protection.

Among the main organisations that are active in the research field in the Region of Western Macedonia, the University and Centre for Research and Technology Hellas (CERTH) have a leading role. The interaction of the research institutes with other agencies is considered crucial. Therefore, many collaborations have been mentioned with business, with the regional authority, other domestic and foreign universities, as well as some ministries.

Regarding energy transition in the RWM, interviewees provided useful insights on their interactions with the regional authorities and other responsible bodies. Opportunities arising due to the post-coal phase, the small size of the Region that allows direct communication, as well as the involvement of civil society in the co-

shaping of research, were mentioned to be the main drivers contributing positively to the concept of responsibility in science and innovation in the Region of Western Macedonia. On the other hand, the major obstacles are the difficulty in the transition to new technologies, the incomplete legal framework regarding programme funding, as well as the monoculture of Public Power Corporation (PPC) that existed in the territory. Although only two of the respondents were familiar with the European RRI framework, all the respondents noted they were familiar with the RRI keys. More precisely, the issues of gender equality and ethics are recognised as the most relevant in the context of the region, followed by open access, while scientific education and public engagement are rated quite low. The research organisations have a committee or a Code of Conduct, and a Committee on Gender Equality. For public engagement, the University has the magna carta in terms of its cohesion with society. Finally, there is a Committee of Excellence that could as well monitor the key of scientific education. The Committee for the promotion of scientific excellence and the connection of research with education was established by the Senate of the University in order to: promote excellence through the organisation of seminars, workshops, create centres of excellence in the University, submit proposals for the connection of research with education in the Curricula, and submit proposals for the development of interdisciplinarity in research and education.

Regarding the AIRR dimensions, anticipation is considered relevant to the organisations. In this dimension, all the interviewees responded that anticipation is part of the nature of the research. Energy communities and the green university are really two points that are at the heart of the anticipation dimension, as they are two actions for which the university had predicted their development several years ago, applying forecasting techniques for actions in the post-lignite era. It was also stressed that anticipation is a consequence of the deeper knowledge a person owns, but also a necessary condition to go as far as possible. It was also mentioned that all those who conduct research related to energy, environment, agriculture should obviously consider anticipation / forecasting. These areas of research are closely related to the involvement of systemic thinking in creating new possible solutions and future scenarios and actions. The involvement of anticipation is reflected in the approvals of the research programmes. This means that the research conducted at the University is of a long-term nature, studying actions and solutions with the help of forecasting techniques and prospective studies, such as foresight, technology assessment, horizon scanning, scenarios, visioning, and so this research is harmonised with the programme framework of the Region. So, the University anticipates what the Region wants to develop. The second-dimension concerns inclusiveness. It was mentioned that the UoWM is part of the local society and interacts with all stakeholders in the Region, through the quadruple helix approach. Regarding reflexivity, the answers indicate that this dimension is relevant as well. It was mentioned that researchers and scientists have the flexibility, the open mind, and the mental capacity to perceive new developments and to adapt to change.

Finally, responsiveness is understood as focusing and addressing the needs of the local community. Regarding the key factors of change for the policy of energy transition the interviewees stressed the importance of the change of the energy mix, the entrance of the pilot implementation stage in the implementation of new technologies, that is now missing, and the raising of public awareness in the transition phase. Finally, the classification of the organisations is based on the four types as follows:

- Bodies with **high levels of interest in relation to the RRI in practice**: The UoWM and the research laboratories, the Regional Authority, and the agricultural bodies.
- Institutions with a **high level of experience in RRI**: The University, CERTH, ANKO.

- Bodies with **high levels of influence in RRI in practice**: The University has a scientific influence; the Regional Authority has political.
- Institutions with **high levels of power:** The University and Regional Authority.

Policy, Civil Society Organisations and Citizens

All the interviewees were from the territorial level and represented a broad spectrum of polarised political parties. These interviews provided a wide range of different perspectives on the issues surrounding energy transition in the region.

Regarding the understanding of the concept of responsible attitude in the energy transition policy in the Region of Western Macedonia, of particular importance is considered the consistency in the commitments of each body, the Municipality, or the Region. Responsibility in the context of the energy transition is related to the keys of responsible research and innovation and especially whether they are integrated. It is emphasised that there should be engagement of all bodies (quadruple helix), as well as application of open access, gender equality, etc. A central issue that was stressed regarding energy transition is the fact that it should be directly related to society. Additionally, it was considered that responsibility is related to participation, knowledge, information, and the ability to substantiate one's position. Regarding the relations and interdependencies necessary for the energy transition, there was a unanimous response for the participation of the quadruple helix.

As drivers for responsibility in post-coal transition for the Region of Western Macedonia the following were captured: the engagement of multiple actors in the transition processes and especially the involvement of the society at large, the small size of the Region that helps any burning issues to be resolved immediately, the transition of the Region to a green economy, away from the burden of lignite, the diverse opportunities that will arise from the transition, such as research opportunities that will enhance science education, new business opportunities, and new areas that will employ the region's human resources.

On the other hand, there are some obstacles and concerns related to responsible research and innovation. As barriers to responsibility in the post-coal transition for the Region of Western Macedonia the following were captured: of particular concern is whether the energy transition is accessible to all actors. In addition, the fact that there is limited time for accomplishing the transition is considered an obstacle because staff training cannot be done so quickly. Another very important barrier is considered the lack of anticipation in local governance because of the many changes in the national policies regarding the plan of transition. There is no definitive plan of actions and the likely consequences in the long run. Concerning photovoltaic installations and the overall intention of increasing the mix of renewable energy sources, a concern was expressed about design and its long-term results. Other major obstacles which were mentioned were the delayed start of the seven-year financial framework for 2021-2027, as well as the high number of national-level procedures that are delayed as well, and the inadequate institutional framework.

Regarding familiarity of the interviewees with European Commission's policy framework for Responsible Research and Innovation, only two of the respondents answered positively. Regarding RRI Keys and whether they are relevant to the energy transition policy, it was considered that all five keys are of relevance and importance as each one of them has its own contribution. In particular, public engagement, open access and gender equality were considered central. However, it was also mentioned that public engagement in

cooperation with open access, are considered interrelated mainly in terms of development planning and energy transition planning. Interviewees also responded that the procedures of ethics, open access, public engagement are largely institutionalised, at both national and European level. More emphasis should be placed on the institutionalisation of gender equality.

Regarding the AIRR dimension of anticipation, many interviewees emphasised that the RWM has a specialisation in energy issues, and this can help them create new opportunities and set new goals in the region. A best practice example here is the development of energy communities which is of high importance now for the Region. In terms of inclusiveness, the participation of the research community in the transition phase planning was considered to be very important. A comprehensive energy transition plan must be aligned with the masterplan and this cannot happen without the participation of all research and development agencies in the area. Regarding the dimensions of reflexivity and responsiveness, they were described by the respondents as interconnected. The emblematic reference to the policy-making in the energy transition in the Region of Western Macedonia is the Master Plan and the Fair Transition Programme. The policy makers of the Region should apply the dimension of reflexivity in order to immediately implement the actions of these plans. In addition, the actions taken through these plans should meet the needs and requirements of the local community, thus implementing the responsiveness dimension. In general, they believe that responsiveness of the business sector will be low, as there is no specific plan from the policy makers to have a high level of commitment from the population.

Business

All the companies that participated in the interviews presented R&D actions, the company of Public Power Corporation (PPC) to a lesser extent. Most of the companies are very small and do not have a separate R&D department, however R&D is a core activity for them. They all have an innovation strategy and are characterised as leaders of innovation, with PPC to a lesser extent. Regarding the social challenges of the energy transition and how they affect the company the respondents answered that companies that will be negatively affected are those that do not have R&D activities. Moreover, the principle of anticipation in the transition phase was considered very important and most of the respondents indicated that they had already turned to new markets.

Understanding responsibility was considered particularly important by all companies. Some perceive responsibility in the area of environmental protection. The certification in the reduction of the carbon footprint and the use of recyclable materials are typically mentioned. Most companies also referred to responsibility in relation to the keys and more specifically gender equality, and open access to research results, rules set by the European Union for participation in European Programmes. Another company that participated in the interviews assumes responsibility as compliance with the European Regulations. Finally, responsibility is expressed in the creation of products that meet the needs of society as a whole. Regarding RRI keys, to a large extent companies follow gender equality. Also, a code of conduct has been established in most of them, which is followed, and in terms of gender equality this is largely ensured. They also follow open access since all European Programmes require all research results to be disseminated to the public. They have also undertaken activities that ensure public engagement, for example, they mentioned the creation of a garden, open to visitors, with aromatic plants so that customers will know the herbs they buy; co-design of projects with public consultation; integration of ideas from external and internal bodies mainly

from universities and research programmes, from which they draw special knowledge which they later incorporate into the business.

Regarding the AIRR dimension of anticipation, it is implemented through the operating strategy of some respondents' companies, since in every step and every process anticipation is applied from the design to the implementation of measurable approaches and calculated actions regarding the expected result. Moreover, some companies already referred to the anticipation process regarding energy transition phase, which forced them to turn to different markets. Also, the dimensions of reflectivity and responsiveness are applied by the companies through the decision-making and application processes, as well as monitoring and evaluation of company policies. In general, most of the companies apply all four dimensions, with the dimension of anticipation and responsiveness playing a dominant role. Only two of the companies apply corporate social responsibility policy. They all implement corporate sustainability policies with the following goals: environment, sustainability, consumer protection, carbon footprint, green energy, lower energy consumption. Finally, the key factors of change and the important points to start the policy and social change were the anticipation of financial response tools, the study of alternative employment scenarios to address the as the expected sharp increase of unemployment as a consequence of the energy transition, the effects of large-scale RES installation and finally the incomplete and unclear information to the citizens.

4.3 Western Macedonia focus group discussion

The focus group took place on May 14, 2021, online via Zoom, with 10 participants, as follows: 4 from research and academia, 6 from policy making. 5 participants were men and 5 were women. None of the participants has participated in the in-depth interviews.

Summary of discussions

Western Macedonia is going through a period where it experiences many and intense changes in its productive model in a very short period of time, due to de-lignitisation. In this context, in order to study and understand the degree of integration of responsible innovation into the economy, research and policies, we need to analyse the individual aspects of the production model and the existing system of innovation governance in the region.

It is known that a large part of entrepreneurship in the region has been focused for about five decades in the lignite industry where innovation was limited. Nevertheless, one can find brilliant examples of private enterprise innovation in the region with a strong degree of extroversion. However, the vast majority of SMEs "consume" rather than "produce" innovation. Consequently, there is no interaction of innovation with the local community, nor a collaborative clusters' culture in a way that creates multiplier benefits.

In the light of the stated above, it is necessary to design responsible innovation policies at the regional level in a way that considers the needs and priorities of the local community in view of the energy transition. In this sense, technological innovations, which will create new and sustainable jobs, require networking and synergies of the region with other parts of Europe that have already experienced the lignite transition. It was emphasised that innovation is the combination of three factors. First, the policies pursued in a country;

second, the research produced by the academic and research community; and third, the integration of research results into entrepreneurship. When these three parameters do not coexist, they cannot give useful results to the economy or society. For this reason, it is crucial to identify and interpret gaps in these interfaces to generate value chains.

Changing the production model to be sustainable requires innovative actions of critical size. One such example is the development of hydrogen technology in which the Regional Authority claims to be at the forefront at European level in this field. This project requires the mobilization of all stakeholders in national and regional policy as well as the academic, research and business community. These are all issues and bets that should be dealt with an open mind and quick reflexes.

In this effort, education at all levels should be reconsidered, among other things, in order to cultivate a culture of innovation and entrepreneurship. The role of local government in creating business parks and supporting responsible innovation can also be very important. However, this requires a drastic confrontation of the bureaucracy and improvement of the institutional framework regarding entrepreneurship in Greece.

Another crucial issue is the low degree of connection of research results with the needs of the private sector through the financing of business doctorates. If, for example, an innovative company wants to fund a PhD at a University in a field that interests it, the context is far from clear. This highlights the need to set up functional intermediary structures between university and entrepreneurship that will ensure systematic information and transfer of know-how.

It is also crucial to utilise the Innovation Zones which are established at the institutional level (e.g. Municipality of Eordaia - Area former AEVAL), but in practice are not supported and remain only at the level of legislative texts. In this light, de-lignitisation should be seen as an opportunity to increase innovation at all levels and in all sectors in the perspective of a new production model. The University, representing the academic and research field, should become the connecting link, linking research with business and policy makers and increasing the attractiveness of the region as an investment destination. This triple cooperation also creates favourable conditions for the creation of new businesses in the region.

In conclusion, a responsible innovation strategy should reflect as a cohesive ecosystem, the collective perception as a society, in a way that will encourage people with high skills to stay in the area and at the same time motivate people who have already left the region to return. Developments in the energy sector should put society at the centre of planning and policies.

4.4 Profiles of stakeholder organisations from the Region of Western Macedonia

The profiles of the following stakeholder organisations are presented in Annex A to the current report.

Policy - makers:

- RIS Structure of Western Macedonia
- Region of Western Macedonia (RWM)
- Regional Development Fund (RDF)

- Waste Management Company of Western Macedonia (DIADYMA SA)
- ANKO Western Macedonia S.A. Organisation for Local Development (ANKO)

Research and academia:

- Department of Chemical Engineering (DCE) of the University of Western Macedonia
- Department of Mechanical Engineering (DME) of the University of Western Macedonia
- Department of Electrical and Computer Engineering (ECE), University of Western Macedonia
- National Center for Research and Technological Development (CERTH)

Businesses:

- Public Electricity Company (PPC)
- Cluster of Bioeconomy and Environment of Western Macedonia
- BELLIS SA
- Bagatzounis Markos & SONS SA
- ETHELEO LP
- B&T COMPOSITES, Tiriakidis Vasileios ABETE

5. Mapping Report for Sofia Municipality

5.1 Sofia Municipality: introduction and policy focus

Coat of Arms of Sofia and the motto 'Ever Growing, Never Aging'

Sofia, the capital of Bulgaria, is one of the oldest cities in Europe with more than 7000 years of history. It was established at the crossroads of very important routes, linking Western Europe with Asia Minor and the Middle East, as well as the Baltic Sea with the Aegean Sea. Serdica, Sredets and Triaditsa are the three old names of the city. The new name Sofia was mentioned for the first time in a document, dating back to 1376. In 1382, after a three-month siege, the city was conquered by the Ottomans. In 1879, one year after the liberation of Bulgaria from Ottoman rule, the First Constituent National Assembly unanimously voted Sofia for the capital of the restored Bulgarian state.[5]

Today, Sofia is the largest city in Bulgaria – it accommodates the legislative, executive and judiciary power in the country (National Assembly, Presidency, Council of Ministers and all Ministries) and it is the financial, educational, cultural, business and commercial centre of the state. Sofia is the 15th largest city in the European Union with the population of approximately 1.3 million (1.6 million with the surrounding region), which is 23% of Bulgaria's population. Also, Sofia accounts for 25% of the labour force in the country.[6]

According to the National Statistical Institute, Sofia's GDP is € 22.7 billion and GDP per capita is € 17,097. Sofia accounts for 40% of the national GDP, 1/3 of the export from Bulgaria and 1/6 of manufacturing. Leading sectors in the city include ICT; trade and repairs; creation and distribution of information and creative products, telecommunications; manufacturing; transport, storage and post; administrative and supporting activities; professional activities and scientific research; construction; hotels and restaurants; healthcare and social work; real estate; generation and distribution of electricity, heating and gas. Furthermore, Sofia offers one of the highest Internet speeds in Europe and has a very vibrant and innovative start-up and entrepreneurial ecosystem, which has been developing rapidly in recent years. As a result, the ICT sector became one of the priority sectors, accounting for 19% of the economy of the city. Sofia is also a growing Fintech and artificial intelligence destination and ranks among the top 3 global service locations in Central and Eastern Europe, as it has a very well-developed business process outsourcing (BPO) and shared services centres (SSC) sectors. Other high-tech sectors in Sofia include creative industries, the film industry, the gaming sector, the automotive, robotics and aerospace sectors. Sofia has more than 35 tech, art and social co-working spaces and hubs.[7]

By the end of 2018, Sofia has been attracting half of the foreign investments in Bulgaria – EUR 12.4 billion or EUR 9,800 per resident, which is three times the average for the country. A big share of the investment is

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allocated to high value-added sectors, because Sofia tries to encourage projects in the fields of R&D, biotech, creative industries, high value-added manufacturing and technologies for sustainable city development. The city is currently building four new industrial zones, suitable for strategic investors. In addition, there are 10 operating business zones in the city as well as a science and technology park with 11 high-tech laboratories, focusing on IT, life sciences and green energy.[8]

Regarding education, there are ~100,000 students in Sofia, studying in 23 universities, among which are the oldest higher educational institution in Bulgaria – Sofia University St. Kliment Ohridski, established in 1880, the University of National and World Economy, the Technical University – Sofia, the Medical University, the Bulgarian Academy of Sciences and the Agricultural Academy.

Sofia University "St. Kliment Ohridski"

There are also 63 research centres and more than 30 independent IT schools. More than half of Sofia's population has a university degree and speaks either English, German or Russian. 1/3 of the people between 19 and 34 are proficient in more than one foreign language.[9]

The city has a well-developed transport infrastructure, including buses, trams and subway. Sofia Airport, the largest international airport in the country, is about 20 minutes away from downtown Sofia.[10]
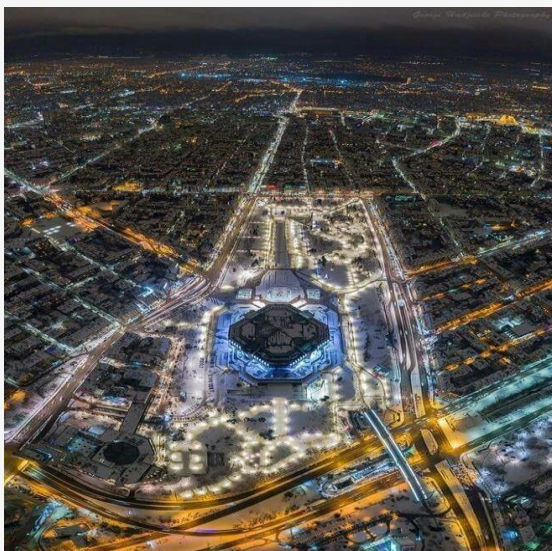
Sofia at night

Policy areas in the focus of RRI-LEADERS project

Sofia Municipality is committed to creating strong innovation eco-systems in order to transform the city of Sofia and surrounding communities into smart and sustainable places where people enjoy living and working. To achieve these goals, concerted efforts and investments are needed not only from the city administration but also from key stakeholders and partners from the industry, research and academia, civil society organisations and citizens.

The ambition is to build Sofia as an innovative city that employs digital technologies, policy and financial instruments to improve the efficiency of urban operations and public services, the economic, social, and

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[8] Ibid.
[9] Ibid.
[10] Ibid

cultural environment, citizen well-being and quality of life, while ensuring that the needs of present and future generations are met in an equitable manner.

These objectives are defined in key strategic documents of the city, namely, the *Innovation Strategy for Smart Specialisation of Sofia*,[11] *the Strategy for Digital Transformation of Sofia*[12] (adopted in 2020), *Sofia Youth Strategy 2017-2027*[13]*,* and *the Vision for Sofia 2050*,[14] which outlines the priorities for the development of Sofia and its suburban areas until 2050.

The four policy areas, chosen by the Sofia Municipality for the RRI-LEADERS project are fully in line with these strategic documents. The policy areas include: 1) support for innovations, 2) digital transition and new skills, 3) youth employment and entrepreneurship, and 4) sustainable urban development.

Through the RRI-LEADERS project, Sofia Municipality expects to get support from the European and local partners for the identification, development and implementation of measures and procedures. The aim is to transform research and innovation in such a way that responsibility becomes an institutionalised ambition and leadership priority for the city authorities, encouraging societal change-driven policy making and sustainable governance in an anticipatory and inclusive way.

5.2 Interviews with stakeholders in Sofia Municipality

26 interviews in total were conducted in Sofia, with representatives from municipal and state administration, non-governmental organisations, research and academia, as well as the business sector. The interview questionnaires were adapted to the policy topics chosen for Sofia Municipality, namely youth employment and entrepreneurship, support for innovation, digital transition and sustainable urban development. The findings of the interviews are summarised in three sections, per quadruple helix partners: research and academia, policy makers and NGOs, and business.

Research and Academia

Interviewees included representatives from four universities and one research institute of the Bulgarian Academy of Sciences. All interviewees were well aware of the RRI policy framework, which they consider of high relevance to research and academia organisations. Although internal organisational policies or strategies focused on the complete RRI framework are not developed, all interviewees indicated the availability of in-house policies on some of the RRI keys. Still, the embeddedness of the RRI individual keys varies across organisations.

Responsibility in research and innovation is understood broadly as responsibility to the society at large, and thus linked to the positive impact of R&I activities and their results on society and the environment.

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[11]   https://www.sofia.bg/documents/20182/448750/ISIS_Sofia.pdf/f51fcd5a-2973-4679-89fe-62b3dccb6662   (in Bulgarian)

[12] https://innovativesofia.bg/en/strategies-and-policies/

[13]   https://www.sofia.bg/documents/20182/448750/Strategy_young_people-SO-2017-2027.pdf/8186ee54-8135-42e0-bfa2-17dd2b281742 (in Bulgarian)

[14] https://vizia.sofia.bg/vision-sofia-2050/

Responsibility is further expressed in the collaboration of multi-disciplinary teams, knowledge management and use of research results to the benefit of society.

Regarding the RRI keys, open access and research ethics/research integrity are the most important keys as per the interviewees from research and academia. According to them, most of academic/research publications are of open access and published in open-access repositories of scientific research. Open access is one of the indicators, established by the Ministry of Education and Science for the assessment and ranking of Bulgarian universities and research organisations, and all national programmes for scientific research require open access for publications and research results, which in itself is a strong driver. However, the high fees for open-access publishing in professional journals are a strong barrier before the Bulgarian research and academic community. Another issue related to open-access publishing of research results is the need for proper knowledge management, fair use of results from scientific research, and respect of intellectual property rights. In regard to open-access to research data, there is a recognised need for establishment of common standards for the collection of research data.

Research ethic/integrity is implemented according to the national legislation. Specific in-house policies or procedures on research ethics/integrity are not available in all organisations as per the interviewed. In some cases, the staff is encouraged to abide by the European Charter for Researchers.[15] Recently, ethical issues have gained prominence regarding the way research activities are conducted, and the need to avoid research which could have a negative impact on society and environment.

All interviewees were of the opinion that gender equality has never been an issue and universities and research organisations are well positioned in this regard. When it comes to gender equality and other aspects of non-discrimination, these are mandatory principles and thus perceived as a norm by the research and academia community.

Stakeholder engagement has made visible progress in the recent years. Most of the interviewees noted that external stakeholders are consulted in the elaboration of their university curricula and setting up research agendas. However, engaging with citizens and civil society organisations in setting up research agendas has not been reported by the interviewees, although deemed necessary, given the responsibility of science to address societal issues.

Science education is perceived by some respondents as STEM (science, technology, engineering and mathematics) and more broadly by others as STEAME (science, technology, arts, engineering and mathematics, as well as entrepreneurship). Diverse objectives and practices were presented during the interviews: involving university students in projects and accreditation procedures, focus on life-long learning, cooperation of institutes of the Bulgarian Academy of Sciences with high schools in projects, thus actively including science and research departments in STEM education in schools, and some noted offering of training courses to working adults who want to continue their education. Most of the respondents were of the opinion that science education will be of critical importance for the future to build societal resilience to respond to crises like the Corona virus. Interviewees also marked areas for improvement in science education, in particular, the work with teachers and educators. Interviewees further noted that entrepreneurship and technology will be

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critical for the future. Another critical issue are the open educational resources, in particular their use, distribution, funding and accessibility to the wider public.

The biggest challenges and barriers to the integration of RRI principles in research and academia organisations are:

- Lack of wider awareness on the RRI policy framework among the staff of research and academia organisations. RRI is known mostly by those who have participated in FP7 and Horizon 2020 projects or are currently participating.
- While RRI is perceived as a driver for change, the mindset and the outdated models of education are impediments instead.
- The bottom-up process of decision-making in academia makes it difficult for good ideas for innovation to get to the top level and get implemented.
- Barriers to open science and innovation: the current public procurement system is ineffective and does not support the uptake of innovations.
- Science-business collaboration is a continuing issue. Businesses rarely approach universities with a proposition to conduct research for them and they are not very open for cooperation with researchers and universities.
- Engaging with citizens and civil society organisations in setting up research agendas is not practiced by research and academia organisations.
- Gender equality is narrowly understood in terms of close-to-equal numbers of men and women.

Anticipation, inclusiveness, reflection and responsiveness (AIRR dimensions)

The interviewees from research and academia considered the AIRR dimensions of relevance to their organisations.

Anticipation is mostly expressed in developing and implementing internal strategies for education and/or research which are aligned with relevant national and EU strategies, and in some other cases in updating and adapting the educational programmes and curricula. Systematic analysis of social impacts is mainly done by researchers, but anticipation approaches like foresight studies or horizon scanning were not reported by the interviewees.

Reflexivity is mostly in the form of periodic reports to the Ministry of Education and Science which are delivered as per the requirements of the annual national university rating system. The respondents also noted that the universities in principle are adaptive and react to changes in the external environment. For example, it was noted that many current research projects deal with different aspects of digitalisation (human resources, new international business realities, new business trends), so priorities and work methods change to be ''up-to-date''.

Inclusiveness is mostly focused on engaging with external experts (businesses, policy makers) and the research and academia community. Engaging with citizens is not practiced, although considered to be of high importance by the interviewees. Citizens are usually involved as research subjects but not engaged in discussion panels, participatory workshops, science-café events, etc.

Policy makers and civil society organisations

Six interviews were conducted with representatives of policy makers and seven interviews were conducted with representatives of non-governmental organisations.

Although all interviewees recognised the high relevance of the RRI policy framework to their work and organisations, internal policies on the complete RRI framework or on its individual keys (i.e. strategies, action plans, etc.) were not presented.

Public engagement and open access are the most relevant and important keys to both policy makers and civil society representatives. According to some of the interviewees, the engagement of more institutional actors in policy making implies sort of a 'public contract' between the various stakeholders, in terms of shared responsibility, transparency and accountability. In regard to **public engagement** the interviewees (from policy making and civil society) emphasised on the following issues:

- It is very important to include citizens in the design of policies and the elaboration of long-term policy visions, so that a social consensus can be achieved through discussion of different views and ideas.
- Inclusion of citizens should happen through (i) citizen associations and groups, but also through (ii) direct engagement of individual citizens.
- Sofia Municipality already has many online mechanisms for consultation with citizens, but more can be done to optimise the processes.
- Public engagement should not be understood as a one-way channel to provide only information to citizens. Feedback by the citizens in the policy-design process is very important as well.
- In regard to responsibility of local governments, it was noted that they need to stay tuned to what citizens say and align their priorities to those of the public and the business.
- Similar to the group of research and academia, public engagement is understood as stakeholder engagement by some of the interviewees.
- Public engagement is crucial for creating proper conditions for the development of policies. Public participation should be a guiding principle in policy-making, policy implementation and in elaborating solutions. Citizen participation on all levels of governance, from policy development to decision-making, is perceived as a guarantee for transparent and good governance.
- Some of the interviewees from NGOs actively engage the citizens in public discussions, public fora, and advocacy to local government for carrying out public consultations.
- Good example of public engagement was presented during the interviews, namely the process of developing the Digital Transformation Strategy for Sofia Municipality, during which consultations with over 100 stakeholders have been organised and the Strategy has been as well validated by consultations with citizens.

Open access has a key role as it gives legitimacy to the policies and is further considered a key factor for innovation and development. The interviewees emphasised that the sharing of data and information is a driver to accelerate progress and innovations. The easier the access to data and information, the larger the capacity to design, implement and participate in development of policies and processes.

Science education is considered of high importance for the future development of Sofia, by interviewees from both policy-making and NGOs. There was an opinion that it has to start at the most basic level of education,

including kindergartens and pre-schools, which would be easy to achieve in Sofia. Science education is considered more broadly than STEM to include life-long learning, entrepreneurial, leadership and other soft skills. Another argument to support the importance of science education is that policies have to be developed on the basis of scientific data. Today information and expert knowledge are more important than ever, and science needs to be integrated into the educational process as well.

Most of the interviewees from the non-governmental organisations noted that their organisations have internal **ethics codes and policy for non-discrimination**, which are binding for the staff. In some cases, the ethics code is binding as well for partners and beneficiaries.

Gender equality is considered important regardless of the field of work, but does not appear to be an issue in Sofia. Again, the general understanding of gender equality was confined to the equal numbers of men and women in the organisations, and/or the representation of women in leadership positions.

Anticipation, inclusiveness, reflection and responsiveness (AIRR dimensions)

Anticipation is perceived to be of high importance as it allows for short- and long-term planning, and quicker response to unpredictable situations. Two examples were given as good practices in regard to anticipatory governance: Digital Transformation Strategy of Sofia and Vision for Sofia 2050 that looks at development of Sofia in 9 different aspects. Anticipation is considered critical for the long-term municipal policy of youth employment and entrepreneurship on the one hand, but on the other hand the local administration's approach is focused on short-term models of policy development and data analysis.

There are internal procedures for self-assessment at the Sofia municipality, but they vary in different departments and municipal units. These procedures are often updated to include new indicators for control of quality and effectiveness, and for process monitoring. One of the main goals of Innovative Sofia is the digitalisation of these processes, which are expected to improve the self-assessment and reflexivity.

Inclusiveness is also very important, because all relevant stakeholders need to be involved in the policy design in order to develop feasible policies. Inclusion is perceived as a continuing process in the whole policy cycle – from generation of ideas and development of policies to their implementation. The interviewees presented different approaches to inclusiveness applied by their organisations. Public consultations, focus groups and open days are widely used by some Directorates of the Sofia Municipality.

The processes of engaging and consulting citizens, experts and stakeholders during the elaboration of Vision for Sofia 2050 is an excellent example of inclusiveness. More than 400 multidisciplinary meetings were held, including meetings on the spot with residents of the different districts of the city, and close to 20 surveys were conducted on different issues to address information gaps. Dialogues for Sofia were also conducted. These are participatory, future-oriented events, bringing together diverse stakeholders, policy makers, activists and citizens, to discuss on challenges facing the city, and to co-create possible solutions providing benefit to all parties involved.

Another good practice is the integration of young people in the process of decision-making and institutional practices in one of the NGOs. Inclusiveness is also perceived as team building, forming groups of interest, managing different types of collaborations.

Sofia Municipality is believed to be quite responsive to changes in the external environment. Upon the outbreak of the COVID-19 crisis, the Sofia Municipality has introduced several new instruments and measures for informing citizens, for supporting businesses, as well as measures to support the urban transport.

The interviewees from the group of policy making and civils society identified some key factors of change: more channels for information are necessary, funding should be linked to some extent to RRI principles within the national operational programmes, innovative solutions addressing challenges of Sofia should receive stronger support by the Municipality, and programmes to encourage entrepreneurship among young people must be set in place.

Businesses

Eight interviews were conducted with representatives of companies and business clusters based in Sofia.
In general, the business community has very little, if any, knowledge about the RRI framework. That being said, some of the RRI keys and AIRR dimensions are very relevant and often applied in their practice.
Most interviewees from business sector named stakeholder engagement as the most important RRI key. Many companies constantly communicate with different stakeholders, seeking feedback from partners in the industry sector and from policy and decision makers at the national and municipal level, but also from academia and the general public. The companies, which most often seek the opinion and involvement of the citizens are those involved in the shared use of light electric vehicles and in software development.

Business interviewees regard open access as crucial for economic development and experimentation. This is especially valid for business associations and clusters, as sharing information internally and externally with other interested parties is often among the main tasks. Clusters also encourage sharing of information among their members. Some companies require open source software and open data to be able to operate. Open access to data is a precondition for innovations. However, the EU regulations on data collection, use and sharing are very stringent and businesses need to be more actively involved in making decisions regarding data access and use.

All interviewees agree that there are no problems regarding gender equality in Bulgaria. In their opinion, gender-based discrimination is not possible, and in terms of employment and career, gender plays no role whatsoever. Whether a project is managed by a woman or a man is not important. All interviewed companies firmly support the principles of equality and non-discrimination on all levels. The only gender and diversity related problems were mentioned in the ICT sector. Due to a small number of women and representatives of minority groups among technical experts and IT developers, many algorithms and computer programmes might have an unconscious bias towards the male customers.

Science education is important for overall business progress across all sectors in the long-term. Several companies or clusters are involved in the educational work, often in partnership with different schools, universities or the Bulgarian Academy of Sciences.

Finally, business representatives acknowledge the importance of rigorous application of ethical standards. Some even have their own ethics codes. The most important criterion for accepting new members into clusters and associations is the ethical behaviour and responsibility of the company. The organisations, which provide funding and support to start-ups or projects, do so only on condition that the supported initiative has no detrimental effects on society, environment and people. Some companies have a strategy for corporate social responsibility, which includes objectives like becoming a carbon-free company, responsible use of resources

and sustainable development measures.

Anticipation, inclusiveness, reflection and responsiveness (AIRR dimensions)
Interviewees from the business sector easily recognised and identified with the AIRR dimensions. In their opinion, all four dimensions contribute to raising the awareness about existing problems and issues, help companies in long-term strategic planning, and are important for attracting investments and finding markets. Companies use different instruments to implement the AIRR dimensions.

Anticipation is important, as it helps the companies to develop new products, which are in line with future trends and developments. Anticipation also keeps the companies ahead of potential competition in their market niches. No research and innovation activity can be successful without being able to look forward and anticipate what will happen tomorrow. Anticipation should not be confined to the national context – it is essential to compare yourself with the global situation and thus to understand the global development tendencies.

Inclusiveness was often explained as an internal affair – engaging employees in developing innovation and research strategies and products, internal testing and evaluation, discussing business goals and sharing responsibility among all team members. Nevertheless, some companies develop their corporate business strategies with the involvement of external stakeholders as well, or have regular presentations and trainings in different cities across Bulgaria, meeting the local eco-system and establishing contacts.

Reflection involves using different KPIs – establishing why certain expectations have not been met, what went wrong, what could have been done better, and what could be done to prevent this in the future. It is closely related to principal managerial skills – the ability to predict and take corrective measures if predictions were not realised.

Responsiveness/adaptability is also important – each company should discuss and coordinate its activities with the beneficiaries it is targeting.

Some key factors that are suggested by the interviewees in order to make change possible are:
- Synergy of information systems.
- Collaboration and engagement with all stakeholders as well as productive engagement of experts from different fields.
- Utilisation of new technologies is needed in order to make possible the transition and development of new digital skills.
- Sofia Municipality should collaborate more with organisations from the business sector and engage them as experts as this will bring valuable external insight and can contribute to change internally.
- Projects like RRI-LEADERS should be communicated to a wider group of organisations and experts.
- Sofia municipality should consider introducing its own programme for research and innovation, funded by the municipality, so as to have the ownership of the results and reach long-term sustainability.

5.3 Sofia Municipality focus group discussion

The focus group took place on May 13, 2021, online via Zoom, with 12 participants, as follows: 4 from research and academia; 3 from policy making; 2 from NGOs; 3 from business. 4 participants were men and 8 were women. 8 of participants participated in the in-depth interviews, and 4 participants were new.

Summary of discussions

The focus group started with presenting the main findings of the interviews conducted prior to the focus group with representatives of the research and academia, business, policymakers, and NGOs. Differences and similarities per stakeholder group were outlined, including with regard to the four policy areas, namely support for innovation, digital transition and new skills, youth employment and entrepreneurship, and sustainable urban development.

Participants pointed out many important issues regarding the compatibility of the RRI framework and the AIRR dimensions with the objectives and actions envisaged in the strategies and actions plans for the selected policy areas in Sofia Municipality. To start with, there is an expressed need to base the development of municipal strategies on in-depth study of needs of local economy and society so as to avoid the mere repetition of priorities stated in EU-level documents. On the other hand, while there is sound expertise to conduct analyses as part of the policy making process, there is lack of sufficient capacity in defining strategic goals and creating long-term visions. Stakeholder engagement remains mainly at the level of evidence-gathering, but not for creating inspiring visions. Mechanisms for monitoring and evaluation of the impact of specific strategies are considered crucial for the attainment of the established strategic objectives. One good example in this respect is the recently adopted (2020) Strategy for Digital Transformation of Sofia.

Another important issue raised by the participants is the inclusion of different groups (civil society, business) in the process of strategies development based on their merit. Municipalities should aim at broader engagement, but the level of engagement of civil society, for example, largely depends on funding (which is absent, in most cases) and the proactive approach of the municipality of reaching out to citizens and civil society organisations. Thus, the role of Sofia Municipality is seen as supporting the process (either financially or through other means) and integrating the efforts of those involved.

Questions of ethics and responsible behaviour need to be more strongly reflected in strategic documents. While strategic documents are largely aligned with EU-level priorities, the missing link is the inclusion and collaboration with the stakeholders in their implementation. Ethical approach also necessitates a decentralised problem-solving and management of different issues. Few good examples exist (SofiaLab being one of them), and living labs need to be supported as important nodes in the innovation eco-system.

Regarding the two policy areas of the Municipality, *Youth employment and entrepreneurship*, and *Sustainable urban development*, participants referred to other stakeholders who could participate in the process of policy making: schools, teachers and teachers' organisations. Schools are the institutions responsible for the education of the future generations, which will be the leaders of change in the future. Skills and knowledge for innovation are nurtured and developed from an early age, starting in elementary school. Institutions for informal education also need to be involved in the process as well as NGOs, and various associations that promote and provide education. Their relevance is also in providing opportunities for entrepreneurship, as well as testing in practice what is learned. Having in mind the critical changes in many professions (due to digital transition and transformative technologies), the overall attitude and understanding of the role of education and learning needs to change. Other stakeholders that need to be included are representatives of science and research community, municipality, businesses, professional organisations engaged with urban development (architects, developers, urban planners, service providers and organisations/companies which can provide expertise linked to smart city development and digital public services).

Regarding collaboration/networking/interdependencies with the stakeholders in the policy area *Youth employment and entrepreneurship*, participants agreed that in the first place, the cooperation between schools, universities and business needs to be strengthened. In the fields of technical sciences and information technologies, the academia and the business cooperate very well, whereas this cooperation is very difficult in the fields of economy, finance, and management. Business representatives need to be more active and to serve as mentors for university students; a better dialogue is needed for the universities to know what skills and knowledge they have to teach their students in order to meet the demand of the labour market. There is a lack of interest in internship programmes (e.g., actions funded by the Erasmus+ programme); students are not actively pursuing them, which breaks the link between academia and employment. A better public awareness and communication to the public is needed in terms of funding programmes for digital transformation, innovation, etc. In the same perspective, science and the results of scientific research and innovation need to be adequately communicated to the public, and to young people in particular.

The current regulations on public procurement are considered a significant hurdle to innovation; Sofia Municipality should develop expertise and participate in innovation tenders and pre-commercial procurement, as well as to take a leading role in facilitating access to venture capital which is important for innovation. Finally, the municipality should be more active in providing support (through letters of commitment, for example) to large-scale projects, which can impact positively the processes of innovation.

With regards to the processes/structures that need to change, the starting point must be an accurate identification and assessment of needs. When it comes to future skills, for example, all stakeholders – schools, business, universities, organisations, need to be involved and agree on the framework of skills needed. In this process, the leading role lies within the public bodies; according to DESI (Digital economy and society index (https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi) Bulgaria has very low indicators for basic digital competencies and skills. In this respect (obtaining data, evidence-based policymaking, etc.), Sofia Municipality, as well as other municipalities in the country, should cooperate more closely with universities to access/adopt the results of scientific research. Another important issue is considered the development of tailored funding programmes of the municipality to address existing challenges and priorities in the policy fields. In terms of strategic policy development (sustainable urban development, innovation, and digital transition), the sustainable use of resources has to be made a horizontal priority in each area (following the Kyoto agreement).

Participants had different perspectives regarding the leaders of change. For some, it is business that sets the vision as business is result-oriented and has the motivation to support knowledge production and innovation. Therefore, what is needed is a good coordination with the business sector. In this respect, when it comes to the collaboration between academia and business, academia should be the active party – in "selling" to the business the knowledge and skills produced by science. According to other participants, the business sector (in Bulgaria) is not proactive and has so far failed to collaborate with universities to articulate its needs and contribute to the development of adequate curricula and programmes, responding also to the needs of society. At the same time, it is also important to follow global and EU standards in defining the parameters of collaboration (between business and academia); the policy making process is misguided if it only draws upon local standards to set priorities for research, innovation, and sustainable development. An important issue here is that while alignment of local policies with EU and global standards is important, these should not be simply copied and transposed into national/municipal documents, but have to consider national/local context.

Diverse opinions were expressed about who should be the main agent of change in different areas. With regard to innovation, Sofia Municipality needs to be the initiator of change. Participants were of the opinion that long-term visioning is needed so as to establish the kind of support needed to foster innovation in Sofia, for which the leading role of the Municipality is compulsory. In the policy area digital transition and transformation, however, the business should take the leading role, rather than the municipality.

5.4 Profiles of stakeholder organisations from the Sofia Municipality

The profiles of the following stakeholder organisations are presented in Annex A to the current report.

Policy-makers:
- Programme Europe
- Sofiaplan
- Sofia Investment Agency (SIA)
- Sport and youth activities directorate of Sofia Municipality
- Innovative Sofia - Digitalisation, Innovation and Economic Development department of Sofia Municipality
- State Institute for Culture at the Minister of Foreign Affairs

Research and academia:
- Technology Transfer Office (TTO) at the Institute of Information and Communication Technologies (IICT), Bulgarian Academy of Sciences
- International Business School (IBS)
- Sofia University St. Kliment Ohridski
- University of National and World Economy (UNWE)
- State University of Library and Information Technologies (SULSIT)

NGOs:
- NGO Links
- Rinker Center
- Bulgarian School of Politics (BSoP)
- Foundation "The Duke of Edinburgh's International Award – Bulgaria"
- Maria's World Foundation
- Reach for Change Bulgaria
- Sofia Green project

Businesses:
- Health & Life Science Cluster Bulgaria (HLSCB)
- Electric Vehicles Industrial Cluster (EVIC)
- Innovation capital
- Virtech Ltd.
- Microsoft
- Bulgarian Start-up Association (BESCO)
- Lime
- Obecto Digital Cooperative

6. Mapping Report for the Municipality of Thalwil

6.1 Municipality of Thalwil: introduction and policy focus

Thalwil is located in the "Zimmerberg" region, on the left bank of the Lake Zurich and extends into the "Sihl Valley." Although an independent municipality, the proximity to the City of Zurich shapes Thalwil's character strongly, enabling an active political, cultural and social lifestyle. Thus, being a quiet location, yet easily accessible by train, boat, car or bus – Thalwil holds a very high standard of living. Mentioned for the first time in 11th century, Thalwil developed from a farming village through a textile industry hotspot to an attractive residence and workplace.[16]

Thalwil is one of 162 municipalities of the Canton of Zurich. As of 2020, the population counts 18,263 inhabitants, growing at annual rates of 1%, with a proportion of foreigners of 29.6 percent. The population density lies at 3,300 people per km^2 and the mean age is 42.9 years. Whereas the age structure compares to that of the Canton of Zurich, the population density exceeds the Cantonal average threefold. This is commonly observed for municipalities located in the commuter belt of the City of Zurich. In 2019, 2.5 percent of the population were in need of social welfare programmes.

Thalwil and its surrounding municipalities are part of the district Horgen, which together with the City of Zurich and ten other districts constitute the Canton of Zurich. The Canton of Zurich is one of 26 Cantons of Switzerland and at the centre of economic importance for the surrounding territory.

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[16] Based on the greeting of the mayor of Thalwil, Märk Fankhauser. https://www.thalwil.ch/willkommen

Of a total workforce of 6,600 employees, about 84% are engaged in the 3rd sector. The same holds true for the workplaces. Out of 1,300 primarily small and medium size businesses, over 90% belong to the 3rd sector. Thalwil is amongst the most attractive tax locations in Switzerland. With an annual tax revenue of CHF 95 million, or CHF 5,300 per capita, Thalwil ranks well above Cantonal average. In 2020, Thalwil had an unemployment rate of 3.1%.

Thalwil peaks with the "Zimmerberg" ridge at 580 meters above sea level and has a total surface area of 552 hectares, divided into 46 percent settlement area, 23% forest area, 15% traffic area, 14% agricultural area and 2% waters.[17]

Thalwil provides many possibilities for local recreation and leisure activities: walking around the ponds, the forest or along the lake, sports activities at the indoor pool, the track club or the artificial ice rink, or participating in the cultural life of the community. Despite a broad range of services, per capita public spending is efficiently managed and up to 20% lower than the municipal average of the Canton of Zurich.

The logo of Thalwil in the form of a wave with the traditional municipal coat of arms.

In Switzerland, direct democracy has a long history. The federal constitution protects the autonomy of municipalities within the framework of cantonal law. The Swiss take pride in their federalist system, which is often referred to as "Sovereignty", i.e. the people ultimately decide on policy initiatives. The municipality is led by the municipal council, the executive authority. The council consists of nine people, whereas the mayor of Thalwil is one of them. The municipal council is represented by many different parties, as it is usually the case with multi-party systems. The legislative authority is hold by the citizens of Thalwil. On the four assemblies which are hold each year, public expenses are budgeted, and tax rates are set.

Aerial view of Thalwil towards the City of Zurich. Thalwil lies between the Zimmerberg ridge and the lake of Zurich.

The Gattiker Pond with its characteristic bulrushes, as part of the coat of arms of Thalwil.

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[17] All municipal data retrieved from https://www.zh.ch/de/politik-staat/gemeinden/gemeindeportraet.html

In 1998, Thalwil started to commit to a sustainable development. Over the past 20 years, sustainability has become a major policy theme. After the adoption of Agenda 21, the municipal council introduced a steering group to support sustainable strategies. As part of the guiding principles written into the municipal code, sustainable development has become a central part of Thalwil's policy instruments. Since 2010, Thalwil is listed amongst the "Energy Cities," a label provided by the European Energy Award programme. Together with the surrounding municipalities, Thalwil engages actively to transform its energy system.[18]

With the RRI-LEADERS project, Thalwil receives additional support to tackle the energy transition and to face the challenges of climate change.

6.2 Summary of the interviews with stakeholders in Municipality of Thalwil

A total of 19 interviews were conducted, including interviews with representatives from the research sector, entrepreneurs and politicians from the municipality of Thalwil and the canton of Zurich. The guideline for the interviews was adapted in terms of the topic of energy transition. The findings from the interviews are presented in the three categories (research, policy, and business):

Research and Academia

Interviewees included representatives of universities of the Swiss Federal Institute of Technology (Switzerland), the University of Zurich (Switzerland), and the University of Hannover (Germany). Regarding the RRI keys, few of the interviewees had experience with the RRI approach. However, the RRI keys play a major role in the organisations, even if the results of the interviews cannot be generalised for the entire organisation.

Open access became a major issue at all surveyed universities. The state provides funds and resources to make publications and data available to the public free of charge. Not only students and researchers but also various stakeholders from society gain access to scientific knowledge concerning the policy topic.

In contrast, the topic of gender was reflected to be in the most cased a "checkbox". According to the respondents, although there are more and more female students at Swiss universities, especially in technical subjects, there are hardly any female doctoral students and postdocs, let alone female professors.

The issue of ethics was seen by many respondents in the context of research approval procedures. Approvals from the Ethics Council are required to conduct certain research projects, especially those that impact humans or animals. However, these approvals were perceived by our interviewees as nothing more than additional hurdles and "comments from unqualified scientists." It was criticised that there are hardly any standards for these approval procedures and that learning cycles within the ethics committees at the universities are missing. These committees need to be better structured and processes need to be reconsidered, according to the assessment of individual respondents. In the context of the policy topic energy transition, ethics is viewed as an "abstract" moral principle for responsibility for future generations.

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[18] Based on https://www.thalwil.ch/nachhaltigeentwicklung

Public engagement and science education were considered to take only a minor role in the context of how the university' sees the policy topic. Universities have the task of addressing/tackling societal problems and identifying possible solutions through R&D, even though researchers are not consultants. Nevertheless, science, especially through its teaching mission, makes an important contribution to the scientific education of society and thus to solve the societal problems associated with climate change (e.g., by developing technological solutions).

The researchers also voiced criticism of the RRI approach. Key point of criticism was based upon the fact that the theoretical approach does not consider the relationships between individual stakeholders and the question of power and resources.

Regarding the AIRR dimensions: Anticipation is part of the nature of research, to be able to recognise social problems at an early stage and thus to help shape R&D-based solutions concerning the energy transition by taking different perspectives. Anticipation is especially important for research sites to be able to set a planning character for the orientation of the departments. Evaluation is important in the context of research taking advantage of the experience when they make mistakes. It was mentioned here that there are often regular meetings of the research group within the departments, reports are often made, and scientific findings are recorded in publications, which in turn are discussed further by other researchers.

Regarding the energy transition in Thalwil, scholars were not able to provide much insight into the topic of the energy transition in Thalwil, as they are not interacting with the municipality. In sum, the interviews provided overall opinions for the policy topic and thus provided further recommendations to consider engaging additional stakeholders.

Policy, Civil Society Organisations and Citizens

Most interviews with policymakers/societal stakeholders were conducted at the territorial level and represented a range of different perspectives on the issues surrounding the energy transition in the municipality. Good networking of the various actors in the municipality has an impact on the speed of progress in policy topic in our municipality. The municipality launched a broad spectrum of initiatives in the field of energy transition and energy saving as well as in the field of biological and social sustainability.

Regarding RRI keys, they are considered as a key proponent of a sustainable energy transition and of a strong civic engagement in the community. The Swiss social order is built from the bottom up, so citizens in Switzerland have a strong say compared to other countries with direct democracy.

Concerning public engagement, most political stakeholders, therefore, emphasised the need to enhance more awareness-raising activities and thus enhancing the involvement of the population in taking various measures. An interesting instrument of Swiss democracy is therefore the "Initiative", which is launched by individual citizens of the community and which, if it finds a large majority, can set laws in motion.

As for open access, interviewees emphasised the need to improve community access to public data. This improvement concerns, on the one hand, support for concrete investments (e.g., in the areas of heating, mobility). On the other hand, standardised monitoring of previous activities is needed to gather a stepwise learning cycle. Due to the strong anchoring of the topic of sustainability in the municipality law, the municipality has been awarded the energy label "Energy City". In addition, the topic of sustainability is deeply rooted in the municipal administration and there are numerous experts responsible for energy issues in the

municipality. In recent years, many houses have been renovated and connected to the municipality's heating systems. However, it is important to continue to work on transparency of data to build trust in the community's activities and thus in the community's commitment to the energy transition.

Regarding science education, the topic of education was highlighted by all community representatives. It is important to raise inhabitants' awareness of the policy topic by providing facts though science education while they are still in school to create a willingness to invest in energy-neutral projects in the community.

Gender equality did not appear to be an issue in the community currently linked to the topic of the energy transition, since gender-egality was not seen as part of the climate transition by Swiss stakeholders. At the same time, the researchers found that there are hardly any women who make their voices heard and get involved in community politics, as community leaders or active politicians.

As for the AIRR-dimensions, regarding anticipation, many interviewees proudly emphasised that there is a sustainability group in the community that, if requested, reviews community activities from a sustainability perspective and ensures that sustainability issues are also socially acceptable, thus encompassing various aspects of sustainability. Also, in a Swiss comparison at national level, this committee is a real best practice example and thus an important indication for cantonal authorities of the depth of the anchoring sustainability in the municipality beyond the political orientation and the timing of the legislature. In terms of reflection, respondents criticised the lack of a well-formalised/standardised evaluation of sustainability activities. This would require a clearer division of responsibilities and the creation of resources. Another major issue was the responsiveness of the city administration to current trends and issues. The administration is already working swiftly on topics in order to implement energy transition in the municipality through the anchored expert commissions and thus hope for a high level of commitment from the population. However, a broader engagement of the population is required by different stakeholders, apart from the individuals who are often involved.

Business

The businesspeople of a municipality are a particularly important group for the implementation of the energy transition. While some researchers were familiar with the RRI principles, the representatives of the municipality of Thalwil had in most cases no knowledge of the RRI theory. This may also be because Switzerland, as a non-EU country, had low contact with the RRI terminology and thus other approaches were prominently used, especially in the context of climate change and CSR (e.g., the smart city approach). Many politicians highlighted the role of tradesmen in the municipality of Thalwil who install technological solutions for the energy transition in houses, but also in the mobility sector. From experience, most tradesmen intuitively use RRI-keys such as open access, while other RRI-keys such as gender or ethics have no specific significance in the context of the energy transition. The interviews with local business owners have shown that the companies would also like to see a stronger sustainability debate and a change in budgets. This would create new markets in many areas (e.g., heating or mobility) and is often due to a lack of incentives and public funding, e.g., in open access data or bureaucracy in administration. In the discussions, interviewees suggested ways to raise awareness of the energy transition process among different segments of the population, for example, for youth in school and for seniors in public workshops, for homeowners with showrooms for new heating technologies.

Regarding AIRR dimensions, more than the other respondents, business-owners need to incorporate and

standardise the AIRR dimensions such as anticipation and responsiveness into their business practices. Problems, customer needs, risks, and resources must be initially anticipated, and spontaneous responses to change are required. Evaluations are also very important to save costs in the future. The involvement of different stakeholders is often based on different expert opinions in technical processes.

In recent years, the municipality has made great progress in the policy topic and is also concerned with exploring new avenues to tackle the energy transition by creating various commissions to anchor the goals firmly (e.g., through "Energy labels"). However, it was clearly stated by all stakeholders that a stronger commitment in the field of energy transition is necessary and that even more different perspectives in the community need to be considered. Monitoring of existing activities, projects and achieved goals is a key to attract additional stakeholders for participation in the territorial topic in the community.

6.3 Municipality of Thalwil focus group discussion

The focus group took place on April 28, 2021, online via Zoom, with 15 participants, as follows: 4 from research and academia; 3 from policy making; 3 from civil society; 5 from business.

Summary of discussions

The results of the interviews, in particular the suggestions on how Thalwil can advance the energy transition, were summarised in two RRI keys in advance of the focus group. While the first RRI key addressed the inclusion of different stakeholders (diversity and inclusiveness), the second key referred to open access to data. Previously, the interviews highlighted the need for greater societal engagement to attract broader and heterogeneous participation from different segments of the population committed to the issue of the energy transition. The topic for key two, the need to make different data (e.g., possibilities and calculations for solar areas, funding opportunities, but also ongoing activities in the field of energy transition in the municipality) transparent for the population, also emerged from the interviews.

Attendees were divided then into two groups so that each group had a representative sample of the various stakeholders. This approach was recommended to be able to generate a high level of discourse in the focus group. Both groups took place in breakout rooms via Zoom and used the Miro Board. The participants of the two groups worked in parallel on the same topics, with an intensive exchange taking place in both. The primary goal of this focus group was not to find solutions but to better understand the perspectives and tasks with respect to the various stakeholders. For this purpose, participants were asked one after the other to present and discuss their different opinion. Finally, participants of the two groups were invited to meet again in one room at the end of the meeting to discuss all results. This resulted in the following recommendations:

INVOLVEMENT - PUBLIC ENGAGEMENT

Firstly, the topic of awareness raising, and knowledge transfer was discussed, as according to the participants there is a lack of awareness among the population on the topic of energy transition and climate change. Therefore, it is necessary to develop differentiated measures for different stakeholder groups that communicate on the one hand the municipal, cantonal and Swiss climate protection goals and on the other hand the urgency for an individual commitment (i.e., clarify goals and communicate urgency). Explicitly, three

groups of stakeholders were mentioned that have received little attention in climate protection activities so far but make up a large part of the population: senior citizens, students, and homeowners.

Retirees and the elderly could be brought on board through lecture series, family advisory councils, community gardens. One participant suggested organising a large group conference in the form of a World Cafe. Other strategies were also discussed. Regarding the group of students/youth, similar approaches as for the other age groups were discussed among the participants, who generally agreed that climate change starts in school. Sustainable (spatial) development (and building culture) should generally become a topic in schools. Furthermore, it was discussed to what extent seniors or young people can be included in the common dialogue by establishing a (youth) climate council. Pupils are the future decision-makers and need to develop a good understanding of climate change at an early stage. Future activities and formats in schools were also discussed and named: For example, project weeks could be organised in schools. (https://www.solecole.ch as an example of what can come out of it). It was further emphasised that young people have little contact with local politics – yet there are many committed young people (see climate strike, corporate responsibility initiative). Participants called on politicians to involve young people more in political processes. If young people are more involved in political work, they are also more willing to take responsibility later and get involved. It was also suggested that students should be sensitised of the topic of energy transition through practical projects at universities and technical colleges, e.g., by calculating solar panels for roofs in the city. This is a very simple tool. The students could then present their results to residents and homeowners. Through the university's guidance, there would be a discourse in communities where students and residents are dealing with energy transition issues.

Homeowners were identified as a very important group in the field of energy transition in communities already in the interviews. Therefore, two representatives of the Thalwil Homeowners Association (so-called HEV) were explicitly invited to the focus group. Various problems and conditions for the involvement of homeowners (mainly elderly people) were then discussed and highlighted . It became clear that homeowners are the crucial key for the energy transition and thus for the RRI-LEADERS project. However, their problems and motivations are very complex. Two reasons were given for the lack of motivation to invest money in new heating systems. First, the possibilities, the importance of renovating the house facade, replacing heating systems (e.g., oil heating), even innovative new solutions, may be unknown in this stakeholder group. One participant suggested making example projects in communities public, thus making technical possibilities/handiness of technical solutions and their implementation visible. This would require sample catalogue that is not only available as a brochure to the homeowners' association but should reach a broader public and be accessible as a showcase and not only on paper. The questionable financial feasibility of such conversion and investment projects was mentioned by the homeowners' association as a further motivation-reducing point. Pensioners usually have difficulty obtaining loans for renovation work or do not have the necessary financial strength themselves. Therefore, one participant requested that there should be special mortgages for retirees, as they usually cannot get a normal mortgage for a renovation. This sparked a discussion among the group on the topic of financing renovations. It was also noted that there is little incentive for older homeowners. In the end, a consensus emerged that older homeowner often no longer have a mortgage on their pension, so financing often emerges as a problem here in addition to motivation, and seniors are happy to pass the renovation issue on to their children. To push these issues, many participants were sure that intensive discussions with building owners will be necessary, as well as a broad campaign targeting proven channels such as newspapers/magazines to raise awareness about CO2-neutral and sustainable renovation.

There was also a lively exchange on the topic of how information campaigns should be approached to involve various stakeholders, including those with differing opinions. From this point of view, information channels, media strategies, and responsibilities were discussed. It was agreed that something needs to be done, such as launching an information campaign via public media, newsletters, webpage, etc. There was a suggestion that the municipality could start an information campaign via e.g., energy service providers. The possibility of a larger discussion, in the form of the Thalwil Climate Summit, was also raised, which could be a "digital platform for information, forum, neighbourhood solutions, etc." In general, social media played a major role in the discussions, and our participants felt that social media should be linked to age-appropriate activities. Communication should be very much target group oriented. This also requires more regular information events and stronger networking of the actors in the community to plan and implement such projects. To act supra-regionally, new formats of exchange and communication are also necessary, such as regular round tables with experts in the community, where the population can get critical questions answered (e.g., in the form of the so-called ´Ökopolis Energie-Apero´).

An important point during the meeting was also the attempt to think beyond existing formats (e.g., proposal for a new section in media such as the Zürichseezeitung, TeleZüri on the topic of energy and sustainability) and to consider how digitalisation, know-how, and new technologies can help to make strategies visible. Critical voices were also raised, as it was noted that information/awareness-raising at the individual level is sometimes very difficult, as the data is not accessible. However, providers are bound by data protection. This also concerns the question of switching from other energy sources, e.g., to solar capacities, and making these potentials visible to all stakeholders. One solution for this was seen by the focus group participants in the possibility of working with aggregated data, e.g., on a neighbourhood level.

OPEN ACCESS

The second major pillar of this focus group was the topic open access to data. Various new fields/applications/conditions and areas were found that would be particularly important for the topic of energy transition in the municipality of Thalwil. Based on the results of the previous interviews and confirmed in the focus group was that there is a lack of knowledge about subsidies and grants among many community residents. There is also a lack of knowledge about heating options, advantages/disadvantages of certain heating concepts, optimal energy consumption after renovation, or alternative "responsive concepts and strategies." There is a lack of user-friendly data and tools that end-users in the community could use to check their roof areas, e.g., for photovoltaics. Participants mentioned that laws and incentives are constantly changing, information is often unclear or changes over the years. More transparency through an online solution could help. In the opinion of the participants, the data concerning the municipality should be made visible in various places in the municipality so that, on the one hand, data protection is guaranteed, but the necessary data is prepared in an unbureaucratic and user-oriented manner. Supraregional cooperation in this area with federal agencies (such as Swisstopos.ch) or start-ups would also be conceivable. New technologies in the field of artificial intelligence should also be used where they are needed for decision-makers. What remains open is the question of responsibility and what means can be used to get federal/cantonal/municipal/private agencies to make datasets "available" to the public. Two very specific points were raised in the group. One was the suggestion to further reduce bureaucracy and most importantly, an overhaul in the building department would be urgently needed. The second point was related to the current lack of monitoring of current and past activities of the municipality in the field of energy transition. Very specifically, the question arose, "Who should be responsible for monitoring open access?

6.4 Profiles of stakeholder organisations from the territory of Municipality of Thalwil

The profiles of the following stakeholder organisations are presented in Annex A to the current report.

Policy makers

- People of Thalwil
- Municipal Council of Thalwil
- Political Parties
- Municipal commissions of Thalwil
- Commission ("Steuerungsgruppe") for Sustainability Thalwil

Research and academia

- ETH Zurich – Swiss Federal Institute of Technology
- UZH – University of Zurich
- OST – Eastern Switzerland University of Applied Sciences
- SCCER CREST – Swiss Competence Center for Energy Research
- ZHAW – Zurich University of Applied Sciences of Management and Law
- ZHAW – Zurich University of Applied Sciences School of Engineering

NGOs and Associations

- Oekopolis
- HGV Thalwil (Small trade and industry association Thalwil)
- Location Development Zimmerberg-Sihltal
- Homeowners' association ("Hauseigentümerverein")

Utilities

- Energie 360°
- ewz – Utility of the City of Zurich
- EKZ – Utility of the Canton of Zurich
- Gas Wasser Thalwil (Gas Water Thalwil)
- EZS (Cooperative within the Energy Region Zimmerberg)

7. Summary Mapping Report for the City of Sabadell

7.1 City of Sabadell: introduction and policy focus

Sabadell is a dynamic and active Catalan city in the south of Europe. It is continuously growing, and creating numerous projects and initiatives. It has a wide network of shops and restaurant industries, lots of green spaces, and emblematic heritage buildings.

The city is in a great strategic point, very close to Barcelona and with a great communication infrastructure (AP7, C-58 highways, railways, and the Sabadell airport). Sabadell offers the possibility to strengthen a really competitive industrial, knowledge and research structure around the Mediterranean at European level.

Sabadell is divided into seven districts with a total population of 216,543. It is the fifth most populated city in Catalonia. The city covers an area of 37.79km^2.

Sabadell, together with other nearby towns, is one of the main important points of economic activity in the south of Europe.

It is the third Catalan city in the information and communication industry businesses, the second Catalan city by sports activity areas, the third Catalan city by gross value added in construction and the third Catalan city by number of businesses (14,804 companies). The tertiary sector, services, is the predominant sector in the municipality of Sabadell, where commerce generates the highest turnover among the businesses included (3,346.8 M€ and 6,721 companies). Without considering the construction sector, which generates more than half of the secondary sector's turnover, the food, textile and paper industries are the predominant ones, followed by the metal industry (turnover 737.9 M€ and 4,781 companies). The primary sector generates a residual turnover compared to the two sectors discussed above (1 M€ and 30 companies).

Historically, Sabadell was a pioneering city in textiles during the Industrial Revolution in Catalonia. By mid-19th century, it became the most important wool city in Spain. Such textile heritage has left an industrial nature which still persists nowadays, for example, we can see many smokestacks and steam engines. Despite this, in recent decades, the city is going through transformations and creating different sectors, among which are services.

In Sabadell there is an air of culture, history, diversity and customs. However, it is also a modern city that looks to the future, a leading competitive city with services, lots of projects and an active and caring social base.
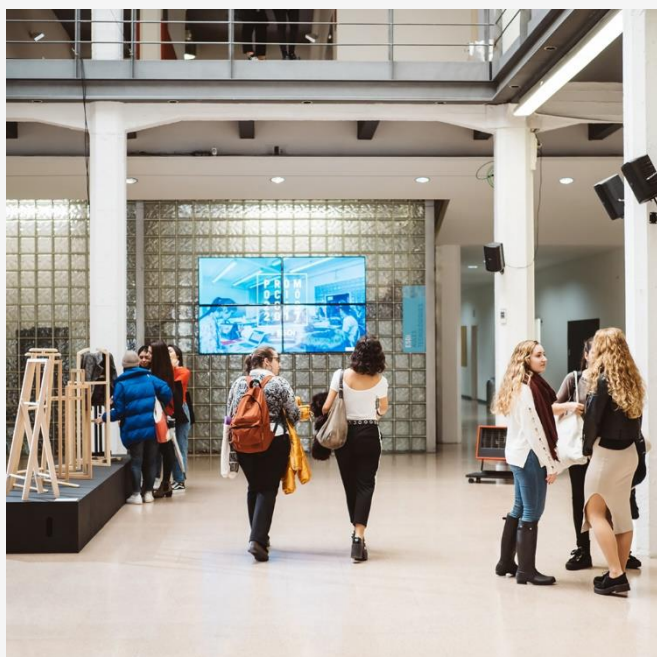
Sabadell also promotes projects to encourage innovation, new technologies, knowledge and activities associated with the industry. The city of Sabadell is completely committed to the growth and industrial revitalisation of the municipality, based on a strategy focused on five main axes around which future plans are based: Healthcare, Logistics, Research & Technology, Aeronautics, Design & fabrics. The strategic lines are supported by knowledge, research and innovation assets.

Sabadell is a university city which delivers world-class expertise to train tomorrow's professionals. It has allocated resources for four university facilities, the Biomedical Research Centre of Catalonia headquarters and EURECAT Technology Centre of Catalonia. Over 1,700 students are enrolled in the faculties of Medicine, Economics and Business, Engineering and the School of Design.

Policy areas in the focus of RRI-LEADERS project

During the last years the Economic Development Agency of Sabadell Municipality has been engaged in the deployment of the Smart Specialisation Strategy in Sabadell city, not only through the participation in a Territorial Specialisation and Competitiveness Project (PECT), but also developing new projects focused on important industrial challenges like the Industrial Symbiosis. In this sense, our work at the RRI-LEADERS will be framed by the implementation of Smart Specialisation Strategies (RIS3) in our municipality.

Thus, our policy focus seeks to promote the territorial innovation ecosystem. It aims to generate a policy change at local level through the projects carried out by the Economic Agency of Sabadell Municipality.

7.2 Summary of the interviews with stakeholders in the City of Sabadell

A total of 17 interviews were conducted, including interviews with institutions, governmental agencies, representatives of the research and business sector of the municipality of Sabadell. The guideline for the

interviews was adapted in terms of the Policy Topic (Societal Challenges, Innovation eco-system, Entrepreneurship and Sustainability). The findings of the interviews are presented in three categories (research, policy and business).

Research and Academia

The interviewees came from Parc Taulí Research Innovation Institute, Core Smart and Sustainable cities, Universitat Autònoma de Barcelona, ESADE Business School, Universitat Autònoma de Barcelona Doctoral School, BSC, ESDi-Escola Superior de Disseny, ISGlobal and ICREA. The framework of Responsible Research and Innovation was very well known and familiar to the respondents, also due to the nature of the research institutions and universities.

Ethics is the most prominent among the RRI keys. Some examples to note are the Ethics committees and the Observatory for Equality. Regarding Gender equality, the matter has been strongly fostered by the national and regional governments during the past years through a series of legislations. Open access is an important issue in all universities.

Regarding the AIRR dimensions: Anticipation is a key issue in strategic planning. Some respondents noted that inclusiveness is worked through in a single-directional way, from research to the public through outreach activities or projects engaging citizens. Inclusiveness appears also as a key issue for Open innovation and RRI. Responsiveness and reflexivity are also prominent dimensions according to the respondents. They are addressed de facto internally and externally by influencing policy-making and public administrations through studies and recommendations. However, it was noted that responsiveness is an issue for the big public organisations. Thus, the creation of flexible structures is needed in order to face this task in a dynamic and autonomous way. To summarise, the RRI framework and AIRR dimensions are all practiced at a substantial level according to the respondents. The key factors to initiate a political and societal process in the territory regarding the Policy Topic would be:

- The creation of critical mass (identifying the stakeholders according to their motivation).
- Definition of a shared agenda (shared challenges and objectives among the different stakeholders of the territory).
- Identification of leverage points in order to boost transition towards a political and societal change.
- Technological factors have a deep impact on Catalan society generating an important societal change.
- In terms of innovation in the territory the most important leverage points, to initiate a political and societal change process are in the responsibility of the public institutions which should be able to give priority to RRI keys and dimensions.

Policy, Civil Society Organisations and Citizens

Regarding the perception towards responsibility, all the interviewees believe that it constitutes an active principle of public policies that have to solve real needs of the industrial network, and moreover a tool for leading a team and developing a task. All interviewed bodies have active interdependencies with other stakeholders, as well as strong collaboration with business associations, companies, universities. For that reason, they are considered as key stakeholders for implementing RRI in the territory. None of them is familiar

with the RRI framework of the European Commission, and one of them appeals to responsibility not in terms of RRI but in terms of Corporate Social Responsibility. They are all familiar with the RRI keys, with mostly applied those of gender balance and public engagement. The lack of open data and open access in general is considered as a major barrier, while science education and ethics is proposed to be further developed. Finally, all the RRI thematic keys have to be aligned among them in order to generate a positive impact on the territory and its people.

In relation to AIRR dimensions, anticipation is considered very relevant since it allows to establish territorial strategies and dynamics in collaboration with other stakeholders. It is also proposed that anticipatory governance should be aligned from the top. Inclusiveness also appears as an important issue, with the existence of i.e. working groups and a system of participative consultations with stakeholders as good practices. Reflexivity is considered also crucial but not very well implemented in all the cases. Finally, responsiveness is put into practice with two main ideas mentioned: private-public collaborations and the communication of actions.

Business

The RRI framework was not familiar for most of the businesspeople as well as the thematic keys which were implemented to a small extent. In the context of the RRI keys the respondents noted that they implement ethics through ethical commitments with products, security, environment protection and respect for human rights. The implementation of gender equality/balance is also implemented as it also compulsory by law. However, respondents emphasised that a main ethical problem at the business is about greenwashing, in other words boosting green policies and actions, which are not really focused on sustainability but on giving a better image.

Regarding the AIRR dimensions: The interviewees expressed that anticipation, reflexivity and responsiveness are in some way de facto implemented since they are an inherent part of the innovation process and assessment. The aforementioned dimensions are also implemented when planning, designing, and assessing innovative solutions and new products for the market. However, it must be considered that commercially driven innovations give priority to economic impact and need not to coincide with social priorities. With regard to inclusiveness some respondents noted that it is implemented through collaborations which allows to plan, design and create innovative methodologies and programmes through the sports that improve the education conditions of vulnerable children and teenagers. In summary some key factors that are suggested by the respondents to make change possible are:

- Establishment of working groups with private firm members, with members of public institutions, research centres and universities to define a territorial strategy and subsequent execution.
- Circular economy, eco-innovation, climate and environmental emergency and global resources are seen as key factors.
- Public administration has a duty to internalise environmental costs (e.g. through a European carbon tax) and once new rules of the game are defined, the company must innovate to gain competitive advantages through sustainability.
- In terms of innovation policies, public administration awareness and determined actions are key factors to initiate political and societal change process.

7.3 City of Sabadell focus group discussion

The focus group took place on April 28, 2021, online via Zoom, with 12 participants. 4 of the participants participated in the in-depth interviews.

Summary of discussions

Regarding the compatibility of the RRI+AIRR framework with the objectives and actions envisaged in the strategies and actions plans of the participatory organisation's policy, participants pointed many interesting issues. To start with, from a company point of view, the compatibility between the RRI and the company's strategies is minimal. In some cases, RRI is done in an indirect way. Big companies that have the structure and the economic capacity are incorporating some of the five RRI keys in their policies, with most addressing gender equality. One of the most important factors why companies do not incorporate the RRI principles is their dependence on economic profits and not on responsibility. Moreover, at the administrative level the compliance with RRI is not compulsory. The new RIS3 strategic plan could become an opportunity for incorporating the RRI into enterprises.

The public administrations have recently considered the RRI approach during a project submission. They are enrolled in EU-funded programmes such as TRANSFORM or GRACE, and acquire the knowledge of how to implement properly the RRI approach in funded projects. But in any case, the implementation of the RRI approach will be a slow process because it is necessary to make cultural changes in the way of doing research, invest more in economic resources and trained staff, and invest more resources in the small companies, such as start-ups. Furthermore, resources need to be allocated in those keys that are more controversial, such as open science or ethics, for a proper RRI implementation.

In research centres, such as ISGlobal, RRI policies have been taken into consideration for quite some time now. One of the keys most applied is gender equality. Aside from having a gender committee, 60% of the employees are women and this proportion is not only seen for PhD students, technical or administrative staff, it is also reflected in senior positions, such as principal investigators or heads of units. On the other hand, the most problematic RRI key is open access – around 75% of the scientific papers are published in high impact factor journals, which are not open access.

Regarding collaboration/networking/interdependencies with the stakeholders, it was pointed that in research centres the relationships that are established with other institutions on RRI issues are common, especially with other research centres or universities. RRI concepts are integrated in their policy, although some keys are more established than others. These differences in RRI implementation depend mainly on the strategic plan and objectives of each institution and project. ISGlobal, aside from collaborating with other research centres to apply the RRI thematic keys that are not in its strategic plan, collaborates with other institutions that have expertise with some RRI keys. For example, regarding citizen science, they work with small companies such as Science for Change or Ideas for Change or with civic centres or town halls. Regarding gender equality, they collaborate with LGBTI association, such as PRISMA.

In companies the relationships that are established with other organisations on RRI issues are very scarce and even non-existent. The most relevant issues are related to the economic benefit they can achieve from establishing a collaboration. RRI policies are a secondary axis, and because of that they are not implemented

directly in the company's action plan. RRI concepts sometimes are indirectly integrated into the company's action plan.

Regarding the barriers that can delay the implementation of RRI, some key points mentioned are society's adaptive response, bureaucracy to apply for a grant, the conception of RRI both as a drawback and an obligation. It must be shown that implementation of RRI in their organisations can open a wide range of opportunities for them in becoming more competitive. For example, integration of citizen participation into policy making may incorporate new perspectives and new ideas that the institution would not have considered before. Moreover, researchers face the RRI approach as an extra work which does not contribute positively to their research. Therefore, when they are designing an action plan or a project, RRI is not incorporated in a voluntarily and innate way. Another barrier mentioned is the non-differentiation between basic and applied research in the RRI. The benefits that basic research has for society are more difficult to be perceived in comparison with those of applied research. In basic research, some aspects of the RRI, such as citizen participation, cannot be applied.

So, in order to introduce RRI in the different active polices the stakeholders proposed to organise meetings among politicians, universities and industrial sectors that carry out research and innovations. These meetings should be a place to debate and analyse the advantages and benefits of the RRI application and also the consequences of not applying the RRI. Moreover, discussing directly with policymakers and explaining the needs of each sector is another important step. In recent years, there has been a predisposition for policymakers to improve science. For example, a science commission has been established in the parliament.

Stakeholders that could be incorporated towards this perspective are the organised society and researchers. If society recognises research and innovation as a strategic and basic pillar for its progress, this could force politicians to invest more resources in research and innovation. Moreover, academic and researchers must agree and stand up for the same goals.

Concluding, RRI keys are applied indirectly by several companies, However, more transparency is needed. There are some missing resources for the proper implementation of the RRI principles, such as staff and more precisely trained personnel who could develop methodologically RRI principles and apply them at a basic level, there still exists an important gap between research and innovation. Science education is important but understanding the importance of research and innovation is even more. Finally, a systemic approach to RRI is needed from both directions, the bottom-up and the top-down.

7.4 Profiles of stakeholder organisations from the territory of City of Sabadell

The profiles of the following stakeholder organisations are presented in Annex A to the current report.

Policy makers:

- Generalitat de Catalunya
- Actividades Integradas, SA (Nodus Barberà)

Research and Academia

- UAB
- ESADE
- BSC
- ICREA
- ESDI
- CORE Smart and Sustainable Cities, UAB (University Autonoma of Barcelona)
- Parc Taulí Research and Innovation Institute
- Barcelona Institute for Global Health (ISGlobal)

NGOs:

- Cambra Oficial de Comerç, Indústria, Serveis i Navegació de Barcelona

Businesses:

- SEAT SA
- Sorigué
- Barça Innovation Hub (Football Club Barcelona)
- ADASA Sistemas S.A.U.
- FI GROUP
- Inèdit
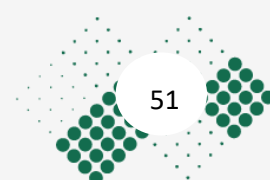
8. Conclusions

8.1 Mapping of territorial R&I eco-systems and stakeholders in the participating territories - summary of results

The mapping of territorial R&I eco-systems and stakeholders in the participating territories was implemented in the period March – May 2021. During the mapping in the participating territories, a total of 90 interviews were conducted with representatives of 77 territorial organisations, and 19 RRI-related good practices have been identified and presented in Annex B of the current report.

Table 3: Mapped stakeholders per territory

Number of mapped stakeholders per territory					
Sector of actor	Region of Western Macedonia	Sofia Municipality	Municipality of Thalwil	City of Sabadell, Catalonia	Total
Research and Academia	4	5	2	8	19
Policy makers and representatives of civil society organisations (CSOs)	5	13	11	3	32
Business	6	8	6	6	26
Total	77				

a) Summary of results of the mapping of **research and academia organisations** from the four participating territories: Region of Western Macedonia in Greece, Sofia Municipality in Bulgaria, Municipality of Thalwil in Switzerland, and the City of Sabadell, Catalonia, Spain:

Awareness of the RRI policy framework:

■ The framework of Responsible Research and Innovation is well known by the representatives of research and academia organisations.

RRI keys:

■ Open access is of high importance for all surveyed research organisations – in most of the cases the representatives of research and academia noted that there are internal organisational policies on open access. Open access to results of scientific research is beneficial not only for the researchers and university lecturers, but also for other stakeholders and the society at large, as they receive access to knowledge of importance to the policy areas in the focus of the four participating territories. In some cases, open access

to research results is a national priority (the case of Bulgaria). While open access to research results is not an issue, policy on open access to research data still needs to be further developed.

■ Ethics is a prominent issue in all research and academia institutions and is practiced diligently. In some cases, it is monitored through ethics committees, while in other cases there are internal codes of research ethics.

■ Gender equality is not perceived as a problem and the universities and the research institutes that took part in the interviews reported that it is applied at all levels. Gender equality is mostly understood as close-to-equal numbers of men and women in research and academia, which is a too narrow understanding. Hence, there is room for further developments in regard to gender equality in research and academia organisations in the participating territories.

■ Public engagement does not have a major role in setting the educational and research agenda of the universities and research institutes. Examples of public engagement were given in relation to the implementation of research projects when the research methodology provides for engagement with specific societal groups. Public engagement is considered important for innovation, especially for product development through co-design and co-creation.

■ Science education is perceived as a key aspect for the overall territorial developments, in some cases linked with the ability of local communities to cope with crisis like COVID-19 and build resilience. Science education in most cases is understood as STEM. Science communication emerged as a topic in some of the interviews, and its importance for building trust in science among the general populations was stressed upon. This was closely linked with the university curricula and the need to have courses or disciplines in science journalism.

Anticipation, inclusiveness, reflexivity and responsiveness (AIRR dimensions):

■ Anticipation is in the nature of research. Being able to recognise social problems at an early stage can help shape R&D-based solutions concerning the policy topics.

■ Inclusiveness is a dimension followed by academia and research, as they constitute part of the society, but it is mostly focused on research community and experts, and it is insufficient in terms of citizen inclusion.

■ Responsiveness and reflexivity are very prominent dimensions in research organisations focusing on and addressing the needs of the local community. These dimensions are addressed internally and externally by influencing policymaking and public administrations through studies and recommendations.

b) Summary of results of the mapping of **policymakers and societal stakeholders** from the four participating territories: Region of Western Macedonia in Greece, Sofia Municipality in Bulgaria, Municipality of Thalwil in Switzerland, and the City of Sabadell, Catalonia, Spain.

Awareness of the RRI policy framework:

■ The framework of Responsible Research and Innovation is not well known by the policy makers, but in some cases, there was a relatively good level of awareness of the individual RRI keys.

RRI keys:

- Respondents noted the gender disbalance in the regional and local politics, as the number of women who are involved as community leaders or active politicians is still insufficient. Apart from this aspect, gender equality does not appear to be a problematic issue in any of the policy areas of the participating territories.

- Public engagement is key to facilitate the progress of the policy development and implementation of the chosen policy areas (in the four territories). There is an expressed need for more awareness raising and involvement of the population in various measures for policy implementation.

- Open access is also a very important key that drives change. There is a need to improve community access to public data. As per the interviewees, sharing of data and information will accelerate progress and innovations.

Anticipation, inclusiveness, reflexivity and responsiveness (AIRR dimensions):

- Anticipation is very relevant since it allows to establish territorial strategies and dynamics in collaboration with other stakeholders. Science-based policy making as well as visioning and long-term strategies are perceived as crucial for the overall development policy of the participating territories.

- Responsiveness and reflexivity are two dimensions that need to be improved, since a number of barriers in their implementation were identified during the interviews.

- Inclusiveness also appears to be an important issue, with some good practices like working groups and a system of participative consultations with stakeholders. Municipalities should not be the only actors in policymaking.

c) Summary of results of the mapping of **businesses and business organisations** from the four participating territories: Region of Western Macedonia in Greece, Sofia Municipality in Bulgaria, Municipality of Thalwil in Switzerland, and the City of Sabadell, Catalonia, Spain.

Awareness of the RRI policy framework:

- The framework of Responsible Research and Innovation was not known by most business people. However, after interviewers briefly presented the RRI keys, many of the business interviewees noted that some of the RRI keys are practices in their companies or business organisations.

RRI keys:

- Ethics is formalised through codes of conduct and in-house policies for corporate social responsibility, and practiced through ethical commitments to products, security, environmental protection, and respect of human rights.

- Public engagement is not practiced by the businesses.

- Open access is very important as data is considered a driver, which accelerates the innovation processes and improves the quality of end products and technologies.

- Gender equality is largely ensured.

- Science education is considered an important element for the development of the economy and the research and innovation eco-system, but in very few cases the interviewees reported about collaboration with research and academia.

Anticipation, inclusiveness, reflexivity and responsiveness (AIRR dimensions):

- Business owners need to incorporate and standardise anticipation and responsiveness into their business strategies.

- Anticipation, reflexivity and responsiveness are in some way de facto implemented since they are an inherent part of the innovation process and assessment. These dimensions are also applied through decision-making processes, and through monitoring and evaluation of companies' policies and practices.

- Inclusiveness is perceived as important. Some business practices, which are related to inclusiveness, are collaboration with other stakeholders (customers) in planning and designing new products or services, and receiving feedback from customers. Inclusiveness appears to be more important for bigger companies with a clear innovation strategy.

8.2 Focus groups: summary of key considerations

The place of RRI concept in the territorial leadership and policy-making

- Participation in the EU funded projects was named as increasingly important driver for incorporation of the RRI framework into territorial governance. Regional and municipal administrations are becoming familiar with and start to recognise the merits of RRI through their participation in projects, which are focused on RRI. Despite that, the participants in the focus groups believe that the integration of the RRI approach by the territorial policy-makers will be a slow process.

- The participants stressed that the municipal/regional policy strategies have to be developed on the basis of an in-depth study of the needs of the local economy and the local community. They were concerned that stakeholders are usually engaged only during the data gathering, but not for creating long-term visions. Furthermore, important groups of stakeholders such as civil society and business are rarely involved in the process of strategies design. RRI concept, especially the engagement key and inclusiveness dimension, could play a prominent role here.

- Another important issue is the development of specific funding programmes for the municipality/region to address existing policy challenges and priorities. Territorial authorities are expected to support (either financially or through other means) the creation of synergies and cooperation between all stakeholder groups.

- Issues of ethics and responsible behaviour need to be more strongly reflected in strategic documents. The ethical approach also requires decentralised problem solving and management.

- Technological innovations, which will create new and sustainable jobs, require networking and synergies between policy-makers, the academic and research community, and the business/industry sector. Only when working together, these three sectors can deliver results to the benefit of economy and society. Identifying and overcoming obstacles to cooperation is deemed of paramount importance.

- The participants from the business group expressed reservations about the relevance of the RRI-AIRR approach for their sector, although many companies have incorporated some of the RRI keys in their policies and practices (gender equality and ethics are deemed especially important).

- The participants in all territories stressed that active participation of businesses is a precondition for successful collaboration/networking/interdependencies.

RRI keys, AIRR dimensions and their significance for the selected policy areas[19]

- The public engagement and stakeholder involvement were stressed by focus group participants in all territories. In addition to the 'usual suspects' such as research institutes, universities, business clusters and associations, and territorial governments, several other often-neglected segments of the society were mentioned. Participants in Sofia proposed schools, teachers and teachers' organisations as important stakeholders to be included in policy development of two policy areas – youth employment and entrepreneurship, and sustainable urban development. In Thalwil, participants noted that engagement of students, senior citizens and homeowners can be crucial in policy areas such as energy transition and climate change.

- The general population in the territories is largely unaware or not interested in the policy areas, chosen for the four territories. In addition to public engagement, science education is crucial for changing this. For example, awareness raising on climate change needs to start in school. Sustainable urban development and building culture should likewise become a topic in schools. Cooperation and networking between schools, universities and business should be strengthened. It was noted that such cooperation is quite good in the field of technical sciences and information technologies, but very difficult in many other fields. A better dialogue would inform schools and universities about which skills and knowledge are needed by the labour market. Business representatives should be more active and serve as mentors to students.

- Young people are the future decision-makers and need to develop a good understanding of the current societal challenges at an early stage. However, young people have little contact with local politics. Digital transition and new technologies offer numerous opportunities for inclusion of the young people and their meaningful engagement in policy processes.

- One of the obstacles for more active public involvement in design and discussion of policies and strategies is that information/data are often not accessible. Open access to data and other information is therefore crucial for progress in basically all of the chosen policy areas. Ordinary residents, but also experts and business-persons are often unaware about the funding opportunities such as subsidies, grants and other incentives. The territorial authorities should develop user-friendly ways for making data easily accessible, especially in the digital (online) format.

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[19] Region of Western Macedonia: Clean energy and economic transition towards a low carbon economy.
Sofia municipality: Support to innovation; digital transition; youth employment and entrepreneurship; and sustainable urban development.
Municipality of Thalwil: Energy transition, focused on reducing the use of fossil fuels.
City of Sabadell: Building an inclusive and sustainable innovation ecosystem.

- Open access to data is connected with several ethical questions, such as data and privacy protection. Municipal/regional authorities are the ones responsible for finding a proper solution for this issue. Another ethical issue related to open access is transparency/accountability – this concerns the public monitoring and control over the current and past activities of the municipality/region.

- The region of Western Macedonia has been undergoing intense changes in its productive model in a very short period of time, due to de-lignitisation. In this context, the participants discussed the potential contribution of RRI approach to the needed analysis of the current production model and the existing system of innovation governance in the region.

Agents of change – towards the integration of the RRI framework

- Participants had different views on the leaders of change. For some, it is the business that sets the vision, as the business is results-oriented and has the motivation to support knowledge production and innovation.

- A continuing problem is the low degree of interaction between business and academia/research. This brings to the fore the need to set up functional intermediary structures between the university and entrepreneurship that will ensure systematic information and transfer of knowledge and know-how. In addition, academia must be the active party and to "sell" to business the knowledge and skills produced by science.

- In some areas, the main agents of change should be the policy-makers. For example, in order to foster innovation in Sofia, the Sofia Municipality must be the proactive stakeholder and develop a long-term vision in this area.

- Developments in the energy sector, namely the energy transition, should put society at the centre of regional planning and policies. In this respect, integrating the RRI policy framework in the overall development policy of the Region of Western Macedonia could strengthen the bonds with society and thus encourage highly qualified and skilful people to stay in the region, reversing the current brain drain. In Sabadell, it was noted that integration of citizen participation into policy making may incorporate new perspectives and new ideas that have not been considered before. If society at large recognises research and innovation as a strategic pillar for its progress, this could force policy-makers to invest more resources into research and innovation.

- One of the possible ways for mobilisation of agents in change in the territories are meetings, attended by policy-makers and representatives of universities and industrial sectors that carry out research and innovations. These meetings would be a good place to discuss and analyse the advantages and benefits of the RRI integration in organisational and institutional policies, as well as the possible consequences of not integrating the RRI concept.

- Finally, the alignment of local policies with the EU and global standards is considered crucial, as well as the creation of networking and synergies with other parts of Europe that have the same policy foci with the four territories participating in the project.

9. Annex A. Mapped RRI stakeholders

9.1 Mapped RRI stakeholders in the Region of Western Macedonia

■ **Policy makers**

Name of stakeholder organisation (and abbreviation): **Regional Innovation Strategy (RIS) Unit of the Region of Western Macedonia (RWM)**	
Profile of the organisation	The (RIS) Unit of the Region of Western Macedonia (RWM) was established as an initiative of the Regional Development Fund (RDF) of the Region during the Regional Operational Programme (ROP) of Western Macedonia 2014-2020. The aim is to contribute to the sustainable growth of the RWM applying the philosophy of the Smart Specialisation Strategy (RIS3). More specifically, it was established to monitor the RIS3 initiative in the RWM and the interconnection between local government, citizens and businesses with higher education and research institutions, in order to utilize the results of research by innovative companies and to achieve sustainable development of the RWM.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	In the framework of the Smart Specialisation Strategy RIS3, various projects have been approved and implemented in the RWM that are either basic research or apply research results and technological achievements and innovation results, funded by Regional Operational Programme and other programmes and by both sectoral and European-level initiatives (Horizon 2020, etc.) A key action of the RIS/RDF support structure of Western Macedonia is the recording of these projects in order to prepare the annual monitoring report on the implementation of RIS3 in RWM so that the institutions, companies and administration are informed. In the context of this action, the relevance of the RRI principles to the RIS Unit is significant.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement and open access** exist to a large extent as the Unit operates directly within the framework of the Region of Western Macedonia, and therefore formal consultation procedures exist and obeyed. **Gender equality** is sufficiently ensured based on the operation of the Unit as one of the main Units of the Regional Authority structure. **Ethics** is largely implemented based on public sector rules and regulations as well as on European regulations*. **Science education** is implemented at a moderate level in the Regional Authority. However, it can be further strengthened based on the

	actions and plans of the Unit in the context of its cooperation with the research community and civil society.
Relevance of AIRR dimensions to the stakeholder organisation.	The **anticipation** dimension is well addressed as analysis of data is continuously applied on the course and evolution of tools and methods used to lead to appropriate conclusions, and mainly in order to submit substantiated proposals to official bodies of the state.
	The **inclusiveness** dimension of science and innovation is considered important and is widely applied in the consultation process as it is based on the active participation and cooperation of businesses, the research community, public sector managers in the allocation of available resources, but also the society of citizens- of the quadruple helix.
	The dimensions of **reflectivity and responsiveness** at the design level are important dimensions for the Unit. Through the Unit, the goal is the rational utilization of public resources and incentives for RTD and entrepreneurship issues, the assistance of decision-making based on documentation and data and the facilitation of the interconnection of the labour market with RIS. In order to achieve this, the Unit acts as a mediator to the stakeholders with a view to the best reflectivity and responsiveness of its planned actions.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The work of the Unit requires synergies with all stakeholders in matters of research and innovation and this is considered important in the regional actions as well as in the framework of the energy transition plan so that there is consistency in the commitments that each body has interconnected and not overlapping.
	The contribution of the Unit, based on its responsibilities, is in the processes of participation, knowledge, information, documented opinion, perception of the direction for the involved bodies.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice ■ Stakeholders with high levels of power
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The Unit can contribute substantially to the adoption of the principles and dimensions of responsible research and innovation through the facilitation of the connections of academic / research bodies with companies, through the facilitation of cooperation / exchanges between enterprises. Also, in the adoption of good practices and examples from other Greek and / or European Regions. It also contributes substantially to regional policy processes based on the documentation and data it provides. Even more the aim of the Unit is to enhance the attraction of companies and investments by facilitating the interconnection of the labour market with RIS.
Website of the organisation	https://pta.pdm.gr/domi-ris-dyt-makedonias/

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Name of stakeholder organisation (and abbreviation): **Region of Western Macedonia (RWM)**	
Profile of the organisation	The Region of Western Macedonia is a secondary organisation of local self-government of the Greek state. Each region is set up in a wider area of the country. RWM administratively took its current form with Law 3852/2010 (Government Gazette 87 / 7-6-2010 τ.Α ') on "New Architecture of Local Government and Decentralised Administration - Kallikratis Program". Full budgetary and administrative autonomy was envisioned with elected bodies, the Regional Governor and the Regional Council.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	The Regional Authority has the responsibility of taking decisions and formulating policies and implementing procedures at social, economic and environmental level in order to implement the national strategy in this area and the needs of the citizens who act in the specific time period in the Region. Responsible innovation is considered very important as always in every change, in every transition, in every planning there are research opportunities, financial opportunities, new areas that can employ the human resources of the region and new innovative actions are the central demand.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement:** Public commitment is very important as it is a local government organisation with an elected regional authority and operates politically and legally under binding laws. **Open access** is an issue that has been secured through laws governing the decisions and policies of the PDM. The application of "open government" the application for the "Clarity-Diavgeia" of decisions and administrative acts etc. has ensured to a large extent this dimension of open access. **Gender equality and ethics** are also ensured through the competent authorities and committees of the Greek State and according to the relevant legal framework. **Science education** exists through the direct cooperation of RWM with academic and scientific bodies of the Region.
Relevance of AIRR dimensions to the stakeholder organisation.	**Anticipation:** The Region, as an organisation and body of key value, seeks through its responsibilities, actions and plans to achieve the development of the region. It cooperates directly with other Agencies but also with Organisations and Organisations aiming at new investments, new planning to create wealth produced with respect for the environment and for future generations. The fair energy transition is an immediate priority for the PDM and the Region as a Local Government Organisation is trying to utilize it in a proper way so that there is development in the area, seeking investments such as the industrial electric park or the hydrogen storage unit for the coming years.

	Inclusiveness: Inclusive science and innovation are of particular interest. In the committees appointed for the planning of a just and fair development transition, the participation of members of the university, social partners, members of workers' associations, of PPC, of the environmental organisations is an absolute priority**.** In matters of administration and planning of the Region it is highly important not to have exclusions and the exchange of views and documentation on scientific issues is sought. **Responsiveness and reflexivity** The Region of Western Macedonia is mainly responsible for administrative acts and planning policies for society as a whole. In its operation it is necessary to have the appropriate reflexes in order to identify the issues of the society and the administrative issues and to find the best possible solutions in the shortest possible time. It is a necessity for an immediately reflexion and activation of the mechanism of the Region which is the Agency in the highest degree of local administration with responsible actions**.** Especially in the phase of the energy transition, the Region seeks financing opportunities for all future investments in order to fill the gap of the transition through de-carbonization and the energy mix that is attempted. Accountability is very important for the regional administration.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	Through a wide array of actions, and mainly sustainable development investments, the RWM is moving towards a comprehensive restructuring of the economic productivity model. Due to institutional position/order and responsibility, the actions towards the management of the energy transition start from the regional authority which also lays the foundations for cooperation with the other bodies. There is already a consolidation of the main actors of the Region, the Municipalities and the University through the Energy Community. This was achieved after the approval of the draft statute of the Energy Community by the competent councils and by the Senate of the University concerning the participation of the Region of Western Macedonia in the Energy Community of Western Macedonia.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of power ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the	RWM is a secondary local government organisation of the Greek state and based on this function, it contributes substantially to the promotion of the RRI principles and AIRR dimensions.

AIRR dimensions within territorial governance?	
Website of the organisation	https://www.pdm.gov.gr/

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Name of stakeholder organisation (and abbreviation): **Regional Development Fund (RDF)**	
Profile of the organisation	The Regional Development Fund of Western Macedonia (RDF) constitutes a legal entity under private law and an innovative institution with an important role in supporting the regional authority in the process of decentralization and local governance. RDF is a powerful development tool at regional, national and European level through the: • Utilization of regional, national and European resources. • Application of modern methods of management, organisation and administration. • Supporting the operations of the Region of Western Macedonia. Among its responsibilities are: • The management, in accordance with the decisions of the regional credit appropriations of public sector bodies and other legal entities, of funding from programmes of the European Union and other international organisations. • The support of the development planning of wider spatial development units, by providing the necessary data, to the relevant services. • Participation in European Union programmes. • The provision of services, the conduct of research and the elaboration of development, technical-economic, organisational studies, as well as the supervision and implementation of programmes which are assigned to the Fund, by the Ministries, by the Regional Authority, by the Decentralised Administration, by municipalities and by LEPLs (Legal Entities of Public Law).
Relevance of Responsible Research and Innovation to the stakeholder organisation:	There is a great deal of knowledge concerning the Fund's activity in relation to smart specialization and on the basis of funded programmes as well as in cooperation with innovation agencies. In this context, the Fund's relationship with RRI appears to have a high degree of importance.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement** is largely ensured as the Regional Fund is a legal entity under national law which is controlled by the Region of Western Macedonia and the Greek state. **Open access** is part of the operation in relation to the national standard procedures to be followed as it deals mainly with technical and payment

issues. RDF also participates in funded programmes and European programmes where access and announcement procedures are formal and must be followed. In relation to research issues, RDF is interested for its greater direct access.

Gender equality is considered to be largely followed in the organisation and in practice in the participations in RDF actions.

Ethics is followed to a satisfactory degree and in accordance with the legal and regulatory regional, national and international procedures governing the operation of the service as a legal entity under public law. However, they believe that it would be useful to have an internal code of conduct.

They consider that **scientific education** needs to be strengthened and in the immediate plans it is to be strengthened in cooperation with the academic institutions and the research centres**.**

Relevance of AIRR dimensions to the stakeholder organisation.	**Anticipation** is inherent in the specific operating framework and in the financial frameworks and schedules the Fund is required to observe. A good practice in this respect is the special Structures now operating at regional level, the Regional Union of Municipalities. Local Governments began to cultivate the practice of doing forecasts to ensure successful implementation. Regarding the process of energy transition, they consider that it is a given fact due to the planning that exists in its implementation, first at European level, then at government's level and to a lesser degree at regional level. The creation of a masterplan in business planning is considered a more organised approach.
	The dimension of inclusiveness is considered to be valid at the level of stakeholders and more specifically of the institutions, where there can be no exclusions, mainly in the part of consultation. In the case of exchanging ideas, regardless of whether they will be accepted or not, it is largely ensured that there is no exclusion. Exclusion will be considered in the essential part of the "applicable" innovation, in the context of the implementation of actions, policies, practices, synergies and collaborations. At that stage, there is justification given for the exclusion criteria.
	The dimension of reflexivity is not considered to exist to a desired extent. There is an obvious need to improve and incorporate it mainly at the level of search for specialised personnel who will be able to directly operate in the implementation of the programmes.
	The dimension of responsiveness is divided into categories, some of which are considered problematic. In the institutional framework regarding transition, the process is considered problematic as the only thing that has been institutionalised is the process of disbursement of 6% of the resources of the Green Fund. The level of organisational culture is also problematic as it is lagging behind at the level of academic

	institutions. The University should be placed as the primary and core player. In essence, it is considered by the individuals of the Regional Fund that the University in collaboration with CERTH should make a team that will specialize in research and innovation in the field of transition. Regarding the part of the public bodies, the bodies of our Region were significantly unprepared, even though they had the necessary culture. However, they were not prepared as actors to be able to support this process with more targeted results, neither in terms of human resources, nor in terms of financial resources. Regarding this specific part, the indications were negative. However, they tend to become positive as the problem that has been identified is to adjust the institutional framework so that there are no obstacles.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The RDF is a powerful development tool at regional, national and European level. It utilizes regional, national and European resources, applies modern methods of management, organisation and administration, and supports the functions of RWM. The RDF operates on the basis of the connectivity of the regional bodies. It contributes substantially with knowledge and training in research and innovation issues at the level of business planning and implementation through both the masterplan and the secured funding.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of power ■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions with territorial governance?	The functions of RDF include the connectivity of the involved Bodies. Innovation issues are handled at the service level and at the level of human resources, in collaboration with the University and CERTH, the University and the Research Community in general. The interface exists in relation to the management services of the co-financed programmes and of course with the bodies that produce innovation in relation to the data collection works, etc. Innovation operates in connection with research within the functions of the RDF so as to get full benefit from resources and to succeed in the context of RRI. In this context, access is provided to all citizens who can contribute and have the right to either human or material resources in this process of transition and innovation.
Website of the organisation	https://pta.pdm.gr/

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Name of stakeholder organisation (and abbreviation): **Waste Management Company of Western Macedonia (DIADYMA SA)**	
Profile of the organisation	In May 1998, the Waste Management Company of Western Macedonia was established, with the distinctive title DIADYMA SA. With the participation of 61 Municipalities and Communities of the region, it constituted one of the largest inter-municipal collaborations in the country. The main object of the company is the design, implementation and operation of the Regional Integrated Waste Management System of Western Macedonia. In this process, sustainable management methods are applied to achieve the objectives of National and European legislation, thus minimizing the cost for the citizen. 4The shareholders of the Company today are the 13 Municipalities of the Region of Western Macedonia - Amyntaio, Argos Orestiko, Velvento, Voio, Grevena, Deskati, Eordaia, Kastoria, Kozani, Nestorio, Prespa, Servia and Florina.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	The objectives of the Waste Management Company of Western Macedonia are closely related to research and innovation in the field of sustainable management methods therefore, the RRI framework is relevant to its activities as well as the activities of the 13 Municipalities of the Region of Western Macedonia that are members of the Company.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement** is essential, because one of DIADIMAs company main concern is to connect its main members of public administration in order to develop a common vision and priorities, as well as to co-design policies and joint planning.
	Open access is ensured to a significant extent in both the participations and the activities of the company.
	Gender equality is important for the company on all levels and ensured
	Ethics is applied to a satisfactory degree on the basis of the company's operating statutes and the laws and regulations governing its operation and participation in European programmes.
	Science education depends on the degree of the company's participation in educational programmes such as the Regional Solid Waste Management Agency of the Region of Western Macedonia. Through those activities it focuses on cultivating the environmental awareness of the new generation with the aim of sustainable environment management and conservation.
	The company develops environmental information and awareness programmes aimed at students of both primary and secondary education that are adapted according to their learning abilities.

Relevance of AIRR dimensions to the stakeholder organisation.	**Regarding the dimension of anticipation "** it is very important especially with regard to the corporate strategies which are developed with the involvement of the stakeholders - members of the company. They cooperate and work with strategy for joint actions and joint results.
	The dimension of inclusiveness exists in the framework of the collaborations of the company and the Municipalities that are its shareholders, with the Region of Western Macedonia, with the educational Institutions, with the Cluster of Bioeconomics and Environment, with the University Institutions.
	The dimensions of reflexivity and responsiveness are necessary because it aims at being an "umbrella" - company that can gather all the ideas of the stakeholders that are independent of each other but have common needs and goals.
	Reflexivity and responsiveness are promoted in the company through its shareholding cooperation with the municipalities. Nevertheless, it is considered that especially now, in the process of energy transition, optimal preparedness and vigilance should be ensured - there was no timely preparation of the institutions in the previous years.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	As a large part of the company's activity is located in the old mines of PPC, it is considered an obligation on their part to play a significant role during the phase of energy transition in the Region. Diadyma SA is an active member of the energy community and are already taking action in the context of the energy transition. The company has a key role regarding the creation of new activities in the area concerning circular economy as well as the development of projects creating new jobs in the region.
	The shareholding structure of the company makes it a direct interlocutor of the local government in the phase of de-lignitisation which takes place in the Region mainly in matters of management of environmental issues.
Relevance of the stakeholder organisation to the of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Given that they have developed a waste management system that is considered pioneering at a national level, they are trying to find ways to go to the next level, which is circular economy. Considering the energy transition that will take place in the area, they have already started the processes related to the design of a circular economy park in their facilities in collaboration with mainly academic and research institutions. The aim is to prepare the ground for joint planning of future actions in the circular economy park in cooperation with incubators and future start-ups developed in the University within the next three years.
Website of the organisation	https://diadyma.gr/

Name of stakeholder organisation (and abbreviation): **Development Company of Western Macedonia SA (ANKO)**	
Profile of the organisation	The Development Agency of Western Macedonia SA (ANKO) was created by the Local Government, the State and the Collective bodies of the rural area and the productive actors of the region in order to be a pioneering mechanism in the promotion of the local and regional development. The purpose of the company is to promote, support and participate in the integrated regional development for the promotion of Western Macedonia in an area of healthy-safe living and sustainable development. ANKO operates cooperatively and supportively to the Public and Private sector, operates with private economic criteria through a rational combination of social offer, business action and management of the high level of the requirements of integrated development with transparency and efficiency, aiming to create a modern, strong, specialised and financially self-sufficient company.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	For a company based on the objects it deals with, there is a great correlation with the concept of Responsible Research and Innovation and it is exploited through the current and future goals set by ANKO as it operates cooperatively and supportively to the Public and Private sector. ANKO operates with private economic criteria through a rational combination of social contribution, business activity and the management of the high level with transparency and efficiency.
Relevance of RRI keys to the stakeholder organisation.	**Public commitment** is fully undertaken as the company origin is the local government (Regional and Local Authorities) and always has collaborations at a higher level with senior organisations and of course with the local community.
	Open access is ensured through the dissemination of information and the intermediate stages of consultation which take place where required. In particular, the recent period in the process of energy transition where as ANKO has taken the role of technical consultant of the energy transition in RWM related to district heating. In this context, the management and financial monitoring of all actions are outlined in a memorandum on district heating, where all relevant information is constantly posted and updated. As a result, each citizen can have open access to publicly available data and be informed about what the master plan is, what the deadlines of the consultation are, etc.
	Gender equality is placed high for the Agency which strives to ensure equal participation and treatment of the sexes in its operation and action.
	Ethics is applied in accordance with the code of ethics legislation, especially as it relates to public procurement. All actions to be taken,

	including infrastructure projects, will abide by Law 4412 on public procurement, as the law is harmonised with the public procurement directive. These components are, at the same time, a guarantee for these legislations.
	Science education needs to be improved, and the company's cooperation with the University and CERTH can be of further assistance in that respect.
Relevance of AIRR dimensions to the stakeholder organisation.	Regarding the dimension of anticipation is obvious in all the issues that the company deals with and especially in the current phase with the energy issues, it is important. The company's strategy is to determine the "map" of its actions, with the participation of all research and development agencies in the area by mapping and identifying the potential, the constraints of interest based on the need for harmonization, plus creating and ultimately defining the strategy for the issue under consideration. The forecast-anticipation dimension is implemented by ANKO regarding societal hopes and expectations, in the case of the energy transition, of course, this dimension is also considered very important because the concern is intense as there is no specific framework and it is a process that is required to be done quickly.
	Regarding the dimension of inclusiveness, it is sought mainly in the objects that the company manages through its participations in the programmes, in which close contact with all the contracting members is promoted. However, there is a belief that the evolution of the implementation in social groups or in various other citizen movements is not an open process because it concerns a study, and a project that runs and evolves. As a general approach, ANKO should incorporate the voices of society as well as the documented positions that arise from various local bodies and should include what is required, regarding their integration. Regarding the process of energy transition, there is cooperation between ANKO and the University headed by the Rector, who is appointed by the Regional Authority to evaluate the investments submitted. Through the existing design, it seems that special emphasis is given to the University and the local research body which helps the company in dealing with scientific as well as innovation issues.
	The dimension of reflexivity for ANKO is defined through the schedule of all the projects involved. This is a dynamic schedule that is updated and changes at any time so the company can be ready to respond to these changes.
	The responsiveness dimension is considered to be an essential part of the company's successful reflexivity. The company is expected to successfully respond in a timely manner, when asked for support by institutions and citizens, by contributing to the development strategies and the coordination actions for the implementation of innovative development programmes. In relation to the energy transition process in particular,

	ANKO considers that the pressure of violent de-lignitisation deprives them of the possibility of reflexivity. On the one hand, there is a narrow time frame in which the territorial plan must be implemented through the territorial programme, and on the other hand, it must be examined whether it can have long-term community-based adaptation locally. In any case, it seems that the local community will adapt to the plan rather than the plan to the local community.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	ANKO has undertaken the role of technical consultant for the part of the energy transition that concerns the district heating. This concerns, initially, the management and the financial monitoring of all the actions that are reflected in the memorandum regarding the district heating. The company contributes to the mapping of central issues and is a member of all the bodies that were appointed by the regional authority. It has many years of experience in development and investment issues as well as in energy management in the process of de-lignitisation, so its contribution is really valuable.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	ANKO has aligned innovation to its business strategies. It maintains proper staffing levels by hiring human resource specialists, and has developed a culture of continuous training. All of the above have led to the creation of a modern working environment with continuous improvement and with the integration of new technologies. The company also pursuits close cooperation in everyday contacts with institutions and citizens and takes initiatives that highlight social values. It has a policy of recording development data, and is constantly in search of perspectives - initiatives - new dynamic approaches to integrated regional development and the production of development policy. ANKO coordinates the timely implementation of development projects and high-quality programmes as well as the provision of integrated support and services to local agencies.
Website of the organisation	http://www.anko.gr/

■ Academia and Research

Name of stakeholder organisation (and abbreviation): **University of Western Macedonia (UOWM)**	
Profile of the organisation	The **Department of Chemical Engineering of the University of Western Macedonia** offers a high level of modern scientific training with emphasis on the basic knowledge of the science of chemical engineering. At the same time, it provides the ability to adapt and assimilate the constantly evolving technology that is the main pillar of its operation. The systematic laboratory training and the internship activities of the students aim to adequately connect the theoretical training with the applications and to get to know the area in which they will develop professionally.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	There is a general knowledge of the RRI context. Empirically and practically, the concept of responsible research and innovation are largely linked to the existence of university knowledge and research and thus is fully implemented in this department.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement** exists in the functions of the Department as a public body. This concerns administrative and academic functions but also research activity and research results. **Open access** has to do with the type of research activities, as it exists in the framework of research programmes and academic activities, such as publications and public announcements, workshops, conferences. **Gender equality** is something that exists with the operation of the related committee of the University that contributes substantially. **Ethics** is addressed in all stages of research activities as well as in the research results which have to be clear and comply with the provisions of the EU, state regulations and the competent committees of the Department/University. Ethical issues are adequately addressed in all research programmes as well as in the overall framework in the submission of programmes, where the applicants should abide by the ethical requirements in force for all programmes. The Training of Scientists concerns the responsibility to impart scientific thinking to young scientists in a free-thinking environment, as there are no commitments, no restrictions.
Relevance of AIRR dimensions to the stakeholder organisation.	**Anticipation** is considered to be applied partially satisfactorily but not in a structural way. **Inclusiveness** is considered, in this regard, very important for the operation of Departments Laboratories, each of which has a key specialisation and collaborates with social organisations, chambers and public bodies.

	Reflexivity in the research part applies obligatorily both in the context of individual activities and centrally in the context of research project funding. Additionally, the University (and therefore affected the Department) has already proceeded to establish an institutional framework with the four types of ISO and their impact on environmental issues, research quality, research processes, the internal regulations of the university, joint research projects among the departments, the institution of excellence and the institution of institutionalised laboratories. The evaluation of the university has been done, and it was generally successful bringing significant research results.
	Responsiveness has to do mainly with correct staffing levels and the direct relationship with the local community. It is therefore considered that in recent years, there has been greater flexibility of the department and the institution as a whole and adaptation to new knowledge and topics, through integrated consultations with the institution,
	There is a central cooperation with the institutions, and cooperation agreements have been signed with the regional authority.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The role of this Department is very critical during the energy transition process as it is related to the production of knowledge through research at a fundamental and applied level both in areas of chemical engineering and in other interdisciplinary fields. Therefore, there is a substantial contribution to the reconstruction and development of the wider region of Western Macedonia in cooperation with productive entities and companies and through issues of excellence, research and innovation.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The Department of Chemical Engineering is a strategic partner in the implementation of the new development model of the region during the transition to a low-carbon economy. It contributes to the promotion of environmental awareness and the development of a green culture. This approach supports environmental protection and is a global priority. It also contributes to the improvement of the production process and the green production. The Department of Chemical Engineering will be an active player in the energy transition processes in the Region of Western Macedonia. By sharing their knowledge of and experience with the RRI framework

	and the AIRR dimensions with all stakeholders involved in the transition process, the staff of the Department will provide a sound basis for the integration of the overall RRI+AIRR framework in the energy policy of the Region.
Website of the organisation	https://chemeng.uowm.gr/

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Name of stakeholder organisation (and abbreviation): **Department of Mechanical Engineering** at the **University of Western Macedonia (DME/UOWM)**	
Profile of the organisation	The Department of Mechanical Engineering aims at the cultivation and promotion of education, scientific research and knowledge in the field of mechanical engineering. The headquarters of the department is in the city of Kozani, a city that is inextricably linked to energy production. RWM has traditionally been the "energy heart" of the country due to its high share of electricity generation. Engineering covers a wide range of areas such as energy, environment, materials science and technology, machine design and technology control systems. The Department prepares young engineers so that they can contribute to the continuous technological developments and be distinguished both in Greece and abroad. It has high quality laboratory spaces. There is a high degree of excellence in research processes and participation.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The context of RRI is known to the Department mainly empirically as all academic and research activities related to a significant extent with the principles applicable to the Department.
Relevance of RRI keys to the stakeholder organisation.	**Public commitment** is an integral part of any academic and research activity of the Department. It is expressed in any decision and any procedure. **Gender equality and ethics** are ensured through the regulations governing the operation of the Department and its laboratories, and also through the competent committees established by decisions of the Rector of the University of Western Macedonia. The respondents-professors warmly supported the work of these committees as it was complete and effective, and stated that they were satisfied with the operating framework set by these committees. **Open access** is an integral part of the operation of the Department with continuous and free access to research and academic data through announcements, repositories, scientific texts and official reports on any result of academic or research participation or assistance. **Science education** is a matter of great dedication. Research results should have a great impact and an environmental footprint, should

	be shaped, evolved. Meaningful community involvement will improve the research process so that research results can have a greater impact.
Relevance of AIRR dimensions to the stakeholder organisation.	The **anticipation** dimension has to do to a large extent with the energy issues that are crucial, and the university is the heart of this forecast. The more knowledge there is, the more help is provided as information and collaborations are sought. It is accepted by society and academia that the more knowledge you have the more you will progress. Anticipation is meaningfully applied through new methods and new technologies.
	Inclusiveness is applied through the extroversion of the Department and the University as a whole as there is a great deal of cooperation with all agencies, numerous programmes locally, nationally and internationally and with companies. Especially in recent years, new directions of the EU funding both products and applied research facilitate this process.
	The dimensions of reflexivity and responsiveness are crucial as scientific objects contribute to the development of new methods and technologies that could help virtually at all levels of society, and mainly in the industries which are the leading sector to economic and social developments of the Region. Therefore, the concept of responsibility for the scientific development of the region is essential. The Department and the UOWM in general are required to have extroversion, readiness, and to be present in the dominant energy developments in cooperation with the management bodies.
	This is undoubtedly a big change in the role of the university in society. Academia was previously disconnected from the real world, but now universities are recognised as important assets and contributors to innovation, directly addressing both educational and social issues.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	It is considered that any type of research related to this new energy landscape is necessarily linked to university research which is conducted responsibly under regulations and commitments that give validity to its results.
	In the research programmes very, interesting findings have emerged from very active groups of students. High-quality research in the field of energy transition is carried out in collaboration with society, environmental chambers and the local self-government authorities.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of	The University through its specialised Departments is one of the strategic partners in the design and implementation of the new

RRI principles and the AIRR dimensions within territorial governance?	development model of the region and is considered the core in the development of an integrated innovation ecosystem, specializing in clean energy and environmental technologies.
Website of the organisation	http://mech.uowm.gr/

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Name of stakeholder organisation (and abbreviation): **Department of Electrical and Computer Engineering (ECE) at the University of Western Macedonia (UOWM)**	
Profile of the organisation	The **Department of Electrical and Computer Engineering (ECE)** is part of the Polytechnic School of the University of Western Macedonia (UOWM) and is located in the city of Kozani, where the administrative services of the UOWM are also located. It is the second in the row department of the Polytechnic School of UOWM, having one of the most modern technological infrastructures. Through teaching, research and practical application, the Department prepares Engineers with all the necessary equipment to be able to monitor developments in the constantly evolving areas of the subject of Electrical and Computer Engineering. More specifically, the ECE Department promotes and cultivates knowledge in the following subjects: • Computer Science • Software and Systems Technologies • Electronics and Electrical Signals, Telecommunications and Networks • Energy
Relevance of Responsible Research and Innovation to the stakeholder organisation:	Officially, in the beginning, there was no knowledge of the European Commission for the RRI framework but in practice, RRI has always been of active importance. In this academic department, research is promoted as it objectively generates new knowledge and new discoveries aiming to have an impact on social parameters. Academics and researchers of the Department believe that the processes leading to new knowledge generation should consider the effects of this generated knowledge on society as well as the effects that will contribute to research and lead to discoveries or inventions. On the research part, the guiding principle is the awareness of social responsibility and its consequences for the community.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement** is put into practice as the Department participates in official collaborations with the Region in matters of information and communication technologies, digital transformation and regional development through digital tools. Additionally, the Department has cooperated with the CERTH research centre in research and development programmes.

	Open access is ensured by relevant announcements, publications of research results and of course by publications in official journals.
	Gender equality is ensured both through the competent committee of the University and through the research regulations and European programmes.
	Ethics issues are also ensured by the competent committee of the University, the detailed code of ethics that is provided and the relevant European regulations.
	Science education is essential as it is provided through every activity of the Department at academic and research level.
Relevance of AIRR dimensions to the stakeholder organisation.	The dimension of **anticipation** is very much related to the nature of this scientific field. It is inherently present in both the technical and the experimental level so that measurements and results are not compromised.
	Inclusiveness is of great importance and is applied exclusively by the Department in its extensive collaborations with local bodies and research centres.
	Reflexivity has to do with the academic and research activities and energies of the Department because there is a constant trend for the researchers and scientists to have flexibility, open mind, mental ability to perceive issues and adapt.
	Responsiveness is maintained through the networks with many years of communication and cooperation with community bodies, representatives of companies such as chambers, development agencies such as ANKO, etc.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	Research development is based in the Region where the energy transition will take place. Scientific support is provided for the development and optimization of areas related to the subject of electrical and computer engineering.
	Also, the department provides the necessary, high level of knowledge on scientific and research issues of technology, computers and energy with the corresponding production and specialization of scientific potential.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Through its research work, this academic department has been able to secure targeted funding for research and innovation and by providing benefits it works closer to society as it helps the social awareness offered by responsible research to achieve this proximity.

	Technology, telecommunications and energy issues are paramount in these targets and in relation to social demands. It provides a large participation of researchers and creates a special connection in the actions of its laboratories with its dimensions and key points.
Website of the organisation	http://ece.uowm.gr/

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Name of stakeholder organisation (and abbreviation): **National Centre for Research and Technological Development (CERTH)**	
Profile of the organisation	The National Centre for Research and Technological Development (CERTH), with its Branch in Ptolemaida, is one of the leading research centres in Greece and is on the list of the TOP-20 research bodies of the EU. attracting resources from competing European programmes. It is a Legal Entity of Private Law of non-profit character that is supervised by the General Secretariat for Research and Innovation of the Ministry of Development and Investment. CERTH has demonstrated significant scientific and technological achievements in research areas of great interest to man and society such as: **Energy, Environment, New Functional Materials, Industrial Processes, Informatics, Telematics, Telecommunications, Transport, Agrobiotechnology, Health Sciences, Mechatronics, Agrotechnology** as well as in various interdisciplinary scientific and technological areas arising from the above. In its current form, the Centre includes five (5) institutes: **Institute of Chemical Processes and Energy Resources in Ptolemaida,** Sustainable and Clean Energy, Environmental Technologies, Chemical and Biochemical Processes, Advanced Functional Materials, **Institute of Information and Communication Technologies** Informatics, Telematics and Telecommunications, **Institute for Sustainable Mobility and Transport Networks** Sustainable Mobility and Combined Transport, **Institute of Applied Life Sciences** Agrobiotechnology, Translative Medical Research, Large Scale Biodata Informatics, **Bio-economy and Agro-technology** Mechatronics, Agrotechnology, Biomedicine, Kinesiology.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	The objectives of the organisation are closely related to research and innovation in many of the fields therefore, the RRI framework is relevant to its activities. CERTH has participated in more than 1,200 research projects (with a total budget exceeding 450 € and with more than 1,100 international collaborations) funded by the European Union, major foreign industries (Europe, Asia and America) and the Greek public through of the General Secretariat for Research and Technology.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement and open access:** are very important for CERTH. The research centre maintains strong partnerships with important

	partners worldwide and has important and ongoing collaborations with local government, academic institutions, innovative industries and companies in terms of research and technological capabilities in the Region of Western Macedonia.
	CERTH continues (by the General Secretariat for Research and Innovation (GGEK)) to operate as a National Contact Point for Marie Sklodowska-Curie and Europe Horizon actions. Also, since 2004, it has been coordinating the Greek network EURAXESS, a network for the provision of personalised assistance to researchers.
	Gender equality Throughout its years of operation, CERTH incorporates the principle of gender equality in its activities and promotes the provision of equal opportunities between women and men. That is why it proceeded to the preparation of a Gender Equality Plan for CERTH for the period 2021-2024.
	Ethics: is very important for CERTH. Is the first Greek research body recognised by the EU (2012) that respects the principles of the "Researcher Charter and the Code of Conduct for the Recruitment of Researchers".
	Science education is very important. CERTH demonstrates significant scientific and technological achievements in research areas of great interest to humans and society such as: Energy, Environment, New Operating Materials, Industrial Processes, Informatics, Telematics, Telecommunications, Transport, Agro-technology, Health Sciences, Non-Health Agrotechnology as well as in various interdisciplinary scientific and technological areas.
Relevance of AIRR dimensions to the stakeholder organisation.	A**nticipation** dimension is essential as the research centre is placed at the centre of developments in issues related to modern technologies. This is an area where knowledge of research and technology trends are constantly updating, thus making strategic forecasting extremely important.
	The dimension of inclusiveness is particularly strong as CERTH makes a substantial contribution to regional development, innovation and smart specialization, emphasizing the ongoing synergy between entrepreneurship, innovation, research and education. Its research activities and development goals focus on the axes of energy and environment, intelligent energy systems as well as extroversion and education.
	The dimensions of reflexivity and responsiveness are particularly enhanced as they are considered necessary in order to achieve the objectives of promoting research, development, innovation, by conducting high quality scientific research and developing innovative products and services. All this is achieved through cooperation with

	domestic and international industry as well as with research centres and universities in Greece and abroad.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The role of CERTH in facilitating the adoption of the RRI principles and AIRR dimensions is very important. CERTH has extensive know-how and experience in modern technologies as well as significant knowledge of research and technology trends. It collaborates with innovative industries and companies that can contribute directly and substantially to the formation of research and technological capabilities to support the energy transition in Western Macedonia. The timeless evolution of CERTH from a centre of technologies for the utilization of Greek lignite to a centre of research and applications of sustainable development has been highly emphasised. It has expanded its areas of activity to achieve its own transition to a zero-carbon society based on the Master Plan for Western Macedonia to support research activity in the region.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	CERTH provides a high level of scientific training and knowledge in matters of technological development and development action, innovation and research with direct and long-term collaborations and contacts with bodies of the wider private and public sector but also with the business world in Greece and abroad.
Website of the organisation	https://www.certh.gr/

■ **Businesses**

Name of stakeholder organisation (and abbreviation): **Public Electricity Company (PPC)**	
Profile of the organisation	PPC is the leading company for the production and supply of electricity in Greece with activities in the production, distribution and sale of electricity to consumers. It has a total installed capacity of 12.2 GW in Greece, with thermal and hydroelectric power stations as well as Renewable Energy Sources (RES) installations on the mainland and the islands. It owns the electricity distribution network with an Asset Base of approximately € 3 billion, managed by its subsidiary DEDDIE SA. It is the largest supplier of electricity, serving approximately 6.9 million customers nationwide. It is now a strategic priority of PPC to decarbonize through the acceleration of the withdrawal of lignite power plants and the promotion of investments in RES, for the Group to acquire a leading role in the development of RES.

Relevance of Responsible Research and Innovation to the stakeholder organisation:	There was no clear knowledge of the context of research and innovation. The opinion expressed was that now with the required transformation of PPC and to address its strategic priority of decarbonisation, the company needs to move to a more intense research phase but also to change its services as changes are made during the de-lignification phase with the new fuels and new practices that will prevail.
Relevance of RRI keys to the stakeholder organisation.	**The public commitment** exists in the company in relation to the strategic goals and the developments of its viability. There is a Corporate Governance Code that defines the framework and the corporate governance guidelines in PPC, which it applies in relation to the above. Corporate Social Responsibility also applies to the company. **Open access** has more to do with issues of announcements for new actions, new technologies, new agreements for the development of its functions and services that are announced. **Gender equality** is considered to be largely ensured at all scales of the company's actions and activities. **Ethics** is particularly strengthened on the basis of the Code of Ethics and the wider institutional framework of regulations governing its operation. **Science education** is more related to the PPC faculties that were OAED type and now with the adaptation to the new data has proceeded to the creation of IEK with specialties related to its activities to absorb those who are directly interested in the company providing knowledge and experience. Overall, there is an incentive for its staff to undertake total subsidies for postgraduate and doctoral studies. It is also open to collaborations with Polytechnics, mainly University departments and more specifically with specialties such as mining. In addition, collaborations on safety and health issues arise for some executives to obtain the ISO 45001**.**
Relevance of AIRR dimensions to the stakeholder organisation.	The **anticipation** dimension is directly related to the nature of the activity and potential of a company such as PPC SA. Especially at this time with the issue of de-carbonisation and this post-lignite phase, this dimension is absolutely important in the next planned actions of the company. Regarding **inclusiveness,** some actions and participations are designed to be conducted in collaboration with universities and research centres. The latter are considered to be the best option in this new era that the company is going through. **Reflexivity and responsiveness** are directly related to PPC's nature of activity in this phase of delignification, because PPC is in the process of changing the nature of its business activities. These

	dimensions of RRI are considered necessary, as there is a great need for the company to respond to new circumstances in order to be able to react and make the necessary changes. PPC is considering starting up activities that will be unrelated to the extraction of lignite, and that would provide the financially active citizens with incentives to stay in the region. They way this could be achieved is either by starting new factories, or by creating jobs related to renewable energy sources, energy storage, mine rehabilitation, mobile telephony, wind turbines, production of photovoltaic materials.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy transition	Based on the planning for the RWM and on the framework and the master plan of Fair Transition, PPC has become the centre of developments and actions for the future of the region. The main concerns of the company are the issues of securing jobs and maintaining employment as well as its direct involvement in developments in energy and technology. The know-how and experience of PPC in energy issues is critical for the company, in order to continue to be an important player in the energy transition as well as for the future development of RWM.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of power ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	PPC is the ultimate player in energy issues with knowledge, know-how, experience and with direct involvement in the processes with all the institutions involved in the area. It is considered an absolute necessity to establish a direct relationship between research and innovation in future plans and steps that need to be taken.
Website of the organisation	https://www.dei.gr/el

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Name of stakeholder organisation (and abbreviation): **Cluster of Bioeconomy and Environment of Western Macedonia CluBE**	
Profile of the organisation	The **Cluster of Bioeconomy and Environment of Western Macedonia (CluBE)** is a non-profit legal entity established in 2014 between local entities and companies in the Region of Western Macedonia. CluBE aims to develop business activities and research and development in the fields of bioenergy and environment. Its goal is to strengthen the green and circular economy in the RWM and its neighbouring areas. In February 2014, the Cluster was created as a legal entity with 21 initial members from the public sector, research and educational institutions and companies, covering the Triple Helix of the regional bioenergy and environment sector in Western Macedonia.

	Indicatively, its members are already regional and municipal authorities, universities and research institutions, various companies such as district heating companies, wood and boiler industries, biomass distribution and sale companies, forest and agricultural cooperatives, etc.
	More specifically, the initial strategic objectives of the Cluster include:
	■ The energy utilization of biomass for domestic and industrial use.
	■ The biomass energy utilisation in district heating of municipalities and/or settlements and/or production units, services, etc.
	■ The mixed combustion with lignite in the existing Steam Power Plants of PPC or in future mixed combustion units for the production of heat and/or electricity.
	■ Optimizing the efficiency of heating systems.
	■ Energy saving in the residential sector.
	■ Energy saving in business and services.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	CLuBE due to the context of its activity implements the basic keys of the RRI frame but to a large extent also the AIRR dimensions. To a large extent, the company works on responsibility and research and innovation.
Relevance of RRI keys to the stakeholder organisation.	All five keys are implemented by the company, as their participation in EU programmes requires the application of RRI due to the nature of its activities.
	Public engagement: is essential, because one of CLuBes priorities is to connect the main actors namely business, academia and public administration, and to initiate a dialogue among them in order to co-design policies in the field of bioenergy and environment.
	Open access: They are particularly interested in the part of research and education of ordinary citizens and schools, mainly because it has to do with the circular economy, recycling, and everything that has to go through from a young age in order to become aware of each citizen.
	Their main strategy in the field of research and development is to socialize and bring research and development closer to actors who are not actually in the field of research, such as business and public services as well as social and environmental organisations.
	Gender equality: A lot of emphasis is being placed on gender balance.
	Ethics: The most important ethical concerns are related to making research and innovation results public.
	Science education: One of the main activities of the company is the participation in European Research programmes, where the entrance happens gradually in the research part of the research institutions, i.e.

	in the most focused laboratory research but in the softer parts of the research.
	They have the part of formal and non-formal scientific education aimed at and essentially through both European and research programmes.
Relevance of AIRR dimensions to the stakeholder organisation.	**Anticipation** is a key RRI dimension implemented in the company. Administration and management departments have been created to forecast issues and individual and overall strategy through specific steps.
	Inclusiveness is of main importance as this is its main objective. CluBE is a platform for the cooperation of the pillars of the regional economy with the aim of introducing and developing innovation in the energy sector and increasing its added value. It is already involved in many interregional and transnational programmes with interaction on science and innovation issues.
	The dimensions of **reflexivity and responsiveness** are considered central in the management of current research issues. With its experience in this type of management, the contribution of CluBE is considered to be of great importance now in the energy transition phase in the Region, as a large part of the working population will be affected. More specifically, the workforce employed by PPC and satellite companies will probably face issues working in an environment that is as innovative as CluBE.
	But they believe that this should gradually go downhill and so working based on these dimensions they are already moving in ways of contributing to policies to address it. However, with the implementation of RRI keys and AIRR dimensions, the aforementioned issue could be successfully addressed over time.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy transition	The issues of research, development and innovation that the company deals with, can positively contribute to the important economic-social and energy challenges that the process of energy transition will bring to the Region.
	The connection with the stakeholders that is achieved through the collaborations with CLuBE is valuable for the future plans related to the post-lignite period.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RR

How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions with territorial governance?	CluBE supports the active cooperation of the local bodies in the framework of European and National projects in the fields of bioenergy, biomass and environment. It aims to develop business activities and R&D in the fields of bioenergy and environment, in order to strengthen the green and circular economy in RWM and its neighbouring areas.
Website of the organisation	https://clube.gr/en

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Name of stakeholder organisation (and abbreviation): **BELLIS SA**	
Profile of the organisation	Bellis SA main company object is the processing of meat products, poultry and cold. All products are manufactured and packaged by high-tech machines having the appropriate certification of the production system. They adhere to traditional production but also demonstrate adaptability to new market data with a wide variety of products. The company is ranked as one of the largest companies in the wider area of Macedonia and Northern Greece. The scope of their collaborations extends to Northern and Southern Greece as well as to many islands of the country.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	The company follows strict quality rules, high technology with interest on innovation business matters.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement:** strict rules are followed mainly in the production and control process and on the basis of national rules. **Open access**: is already sought in the actions of the company through websites and social media. Regarding **gender equality**, it appears that there is equality in the leave benefits and rights provided but also in the proportion of jobs based on gender type, except in cases of specific requirements due to weight or risk. **Ethics** has been followed since the establishment of the company with rules mainly in the production and control process, and on the basis of strict European rules governing the production and consumption of such products. **Science education** is more intense mainly in product and quality innovations in recent years with a relationship between the local scientific community and companies. Thus, collaborations are sought with academic and research departments of food science and technology, product quality policy and food quality, as well as strategic business planning.

	As for **sustainability,** Bellis SA, a top food company in the Region, has prioritised the need for high-quality products in a modern production environment. Additionally, the company focuses on launching new products as well as offering a wide variety of meat products, thus increasing consumer demand. In addition to investing in new equipment, their concern is that the workforce should be both properly trained and competent enough to handle the meat processing machinery.
Relevance of AIRR dimensions to the stakeholder organisation.	There's an active interest in the a**nticipation** dimension. Their vision statement is an important part of the company's business plan. Adaptability to customer behaviour and market conditions is a key trait of Bellis SA, manifested either as a planned ability or as changes come along the way. Regarding **inclusiveness**, it is implemented to a great extent, as the scientific world is getting closer to companies in terms of controls and product design. Many of these issues are widely available and accessible through publications and announcements. **The dimensions of reflexivity and responsiveness** are necessary due to market competition and market control requirements.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy transition	The company, through its collaborations and strategies, seeks to further expand its professional and business connections and strengthen employment in the region and the business circle close to its activities. It also seeks to interact with local authorities and academic institutions in the region, to have collaborations, strengthen trade, and exchange good practices in the field of food production and processing.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The company has created a high degree of adaptability to market data positively impacting the demand of its products and business processes. Based on the certifications of the production systems and the high-tech machinery, it seeks to give added value to the region by creating trade transactions and collaborations with Northern and Southern Greece, as well as with the neighbouring countries and the countries of the European Union.
Website of the organisation	https://bellis.gr/

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Name of stakeholder organisation (and abbreviation): **Bagatzounis Markos & SONS SA**	
Profile of the organisation	**Markos Bagatzounis & Sons SA**, is a family company producing, processing, packaging and marketing spices, aromatic plants and herbs

	and beverages in Western Macedonia. The priority of the company is Greek aromatic plants. The cultivation takes place very close to their natural environment., and the company then proceeds to their processing and their promotion in the Greek and the world market. Research and innovation play a central role through multiple actions and certifications for innovation and organic farming.
Relevance of Responsible Research and Innovation to the stakeholder organisation.	The company is familiar with the context of RRI because innovation in the production and all the relevant uses play an important role in the company. Innovation codes have already been created and applied in production as they are considered pioneers in the field of spices and herbs. They also participate in research programmes in collaboration with research and academic departments, in order to meet their objectives of recycling, obtaining the most in-demand certifications, reducing their carbon footprint and promoting green energy.
Relevance of RRI keys to the stakeholder organisation.	**Public engagement:** The part of public engagement has to do with quality assurance and is ensured by following strict rules as they are specified in the Greek and European certifications in production so that they have the corresponding official certification in the company's products. As for **open access,** the company is open to procedures of promotion and presentation of tests and research results, and it is in its immediate plans to perform open access actions and production processes in schools and the wider society through the creation of gardens with aromatic plants. **Gender equality is applied in the company through their code of conduct** which refers to **gender equality and non-discrimination of nationalities**. **Ethics:** The part of public engagement has to do with quality assurance too. The company applies a strict tracing system. They seek and proceed to the certification of proof of reduction of the carbon footprint. **Science education** is highly valued as continuous collaborations with scientific bodies are maintained, and significant results in matters of recycling and pharmaceutical uses have already been achieved. Markos Bagatzounis & Sons SA is an active member of the Association of Aromatic Medicinal Plants of Greece and they participate in the research-innovate programme related to sustainability and the recycling of raw materials
Relevance of AIRR dimensions to the stakeholder organisation.	**Applying the anticipation dimension,** the company aims during the production process, first, to implement demand forecasting, second, to be informed on the scientific study and the design of ongoing innovations, and finally, to develop reflexes for all the incoming data

	in the company so that good solutions emerge in order to achieve optimal results.
	Inclusiveness is achieved as the company is open and with a constant willingness to cooperate with educational and research centres, with several external collaborators such as analysis laboratories, agronomists, chemists, agricultural cooperatives, etc.
	The dimensions of reflexivity and responsiveness are ensured by continuous quick reflexes from the managers of the company and the competent departments. the processing of the product and market issues and their filtering to have an effect through the scientific documentation. The company aims at the development, production, and distribution of safe products for its consumers. For this reason, a quality control department has been established in the company since 2001, staffed with scientific personnel, to carry out all the necessary audits within the framework of ISO certification. The company applies a strict traceability system. Their main aim is to obtain certification for carbon footprint reduction.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The role of the company in facilitating the adoption of the RRI principles and AIRR dimensions is related to the continuous cooperation with educational and research centres, with a number of external collaborators such as analysis laboratories, agronomists, chemists, agricultural cooperatives. The main goals of this joint cooperation and activism are about the environmentally sustainable land uses, in the use of innovations in medicinal uses and the production process implemented for all products foresees that they must be composed and produced with materials that are 100% recyclable. Participation in a national recycling programme for used materials to be recycled and reused is also carried out. The production process implemented for all products foresees expects that they must them to be composed and produced with materials that are 100% recyclable. Participation The company participates in a national recycling programme for used materials to be recycled and reused is also carried out.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest ■ Stakeholders with high levels of experience
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The company's priority is high-quality, safe and innovative products through intense cooperation with universities, research laboratories, agronomists, organisations and agricultural cooperatives.
Website of the organisation.	http://bagatzounis.com/info/

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Name of stakeholder organisation (and abbreviation): **ETHELEO LP**	
Profile of the organisation	**ETHELEO LP** is a family company consisting of a doctor, two pharmacists and an Engineer-Business Consultant. It processes only high-quality raw materials with most of them coming from their own crops which are located in the Region of Western Macedonia and are known for the unique characteristics of climate and soil. In 2019, they installed their production unit, the essential oil distillery, with innovative production methods and control of the final products. The company complies with the quality standards and abides by the relevant regulations to produce cosmetics. certifications for organic crops of aromatic-medicinal plants. ETHELEO LP is aiming to obtain certifications for organic crops of aromatic-medicinal plants.
Relevance of Responsible Research and Innovation to the stakeholder organisation:	The principles of the RRI framework are followed both in the practices and in the ethics that govern the company. Although the company is new, it has already started to develop innovation actions in the field of cosmetic uses and environmental protection
Relevance of RRI keys to the stakeholder organisation.	**The public engagement** mainly has to do with the environmental protection following environmentally friendly uses of the products, the packaging, etc. The company in process of getting a vegan label and the appropriate signing that all raw materials do not apply to animals. Also, an environmentally friendly way of packaging is followed. **Open access** is already sought in the actions of the company through websites and social media and with announcements in the local press and participation in speeches. Soon there will be visits and collaborations with schools so that these issues can be studied by farmers and seminars can be held. There is a plan to create this framework of visits and seminars in the summer, in the period before the distillations, and in collaboration with some research bodies. **Gender equality** was placed very high on the agenda from the very beginning as a company issue. It is ensured by the internal policy on issues of gender ratio of employees, the provision of special leaves and leave benefits to women and men with children, with special family requirements and special family needs. The company is in the process of taking the necessary steps to further develop **public engagement**. **Eth**ics is ensured by following strict rules in production so that they can have the appropriate certification for the company's products,

	and also in the uses of items, packaging, etc. to ensure the ethics of environmental protection. **Science education** is high on the agenda by planning collaborations with research institutes for specialised pharmaceutical and cosmetic uses. There is already a direct collaboration with the University of Epirus, as they seek to develop a cosmetic product with a longer lifespan and therefore with a smaller environmental footprint. Tests are also performed in the chemistry laboratory integrated in the company, which also deals with tests in innovative products. Also, participations in clusters are already underway.
Relevance of AIRR dimensions to the stakeholder organisation.	**Anticipation** is achieved through the departments and scientific managers of the company based on the substantiated forecasts for further actions in terms of production, marketing, extroversion and in matters of research and innovation. **Inclusiveness** is achieved with a specialised study by the competent department and specialised personnel at all levels of production, as it is a vertical production process with the most modern production and control methods. **Responsiveness and reflexivity** exist at every step of production for every new demand or design of new products, in the chemical analysis, or even energy demands that may arise. They are already in the process of installing photovoltaic net metering so that there is a smart software which will be connected to the entire production line and to the environmental footprint of the product batch. Aiming at corporate sustainability, they try to operate with the lowest energy consumption possible and with activities related to the reuse of materials and recycling.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The role of this business in facilitating the adoption of the RRI principles and AIRR dimensions is related to the type of the production of the business. A vertical production is developed in the territories of the Prefecture of Kozani with quality standards based on innovation, cooperation with academic and research institutions and aiming at environmental protection. This is a company that starts from the process of cultivation of aromatic and medicinal plants, passes to the first phase of processing, which is the production of essential oils, and then to the next phase of processing in which cosmetic products are manufactured. ETHELEO LP wants to show to the society of the Region that an important type of occupation is the cultivation of land. They present the benefits of aromatic medicinal plants and their uses so that they can contribute to the creation of contract farming by

	strengthening trust in rural population, and based on the social impact, that is huge. They seek, through the presentation of their operations and the region-specific object of their company to contribute to the creation and presentation of employment opportunities to prevent youth migration to the big cities in Greece or abroad.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions with territorial governance?	The contribution to the adoption of RRI principle takes place through the development of research collaborations, the protection of the environment, the development of strategies for the dissemination and knowledge of products in society following the principles of research and innovation. They seek steps to protect the environment through zero residues, returning the raw material back to the field. They seek cooperation with the local community to make the products and production processes widely known.
Website of the organisation	https://etheleo.gr/en/

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Name of stakeholder organisation (and abbreviation): **B&T COMPOSITES, Tiriakidis Vasileios ABETE (Anonymous Industrial Commercial Technical Company)**	
Profile of the organisation	B&T Composites S.A. is based in Florina, Western Macedonia, and specialises in the manufacture of advanced components made of composite materials. It offers complete solutions from preliminary design to engineering, construction and testing, and covers a wide range of applications focusing on quality, reliability, safety and efficiency. The company has specialised production facilities, fully equipped with machinery and software technologies of the latest trends. Most of the staff comes from the composite materials sector, and many of them have degrees and specialisation in the design, manufacture and testing of composite materials.
Relevance of Responsible Research and Innovation (RRI) to the stakeholder organisation	Responsible research and innovation is directly linked to the operation and design of the company due to the nature of its object of activity, which is the manufacture of products of high scientific and technological training and innovation in the fields of engineering and construction and with applications in aeronautics, shipping, industry, automotive, wind energy.

	High-level technologies are implemented in advanced production facilities, machinery and leading-edge software. The stages of production of materials are completed with high scientific know-how, and the teams involved in the processes have a high level of scientific knowledge. The company is also actively involved in research programmes.
Relevance of RRI keys to the stakeholder organisation	**Ethics** is ensured on the basis of the legal and regulatory requirements of the current Greek and Community legislation as the company is certified by multiple ISO certifications, by official European product certifications and European materials certifications. A product quality policy is established, and the Terms of Trade measures as well as the General Data Protection Regulation are also applied.
	Gender equality is followed by achieving a balanced participation both in the number of employees and in the participation in the company's objects within the framework of gender equality as defined at European level.
	Public engagement refers to the commitment of the company to material certification as well as the product quality policy being implemented. The policy of corporate social responsibility is also followed.
	Additionally, the company is committed to deliverables-based schedules of mainly the research and scientific programmes in which it participates.
	Open access to the actions of the company is accomplished through articles, through frequent press releases with announcements of participations and actions of the company, through publications on its websites, through social media and with participations and speeches in conferences. In addition to the above, open access is achieved through participation in European research and scientific programmes.
	Science education is related to seminars for all staff every month in the context of their training in high technological specialisation issues. On the basis of training in the development of responsible entrepreneurship, the company supports doctoral dissertations of research engineers of polytechnic institutes in the country. They are hosted on company premises and are provided with all the necessary equipment required to conduct their research.
Relevance of AIRR (anticipation-inclusion-reflexivity-responsiveness) dimensions to the stakeholder organisation	**Anticipation** is important as it is included in all stages of the company procedures, and mainly through the research parts where the implementation of new actions and steps taken is done with measurable approaches and calculated estimates of the expected result.

	Science and Innovation without Exclusions is ensured to a significant degree by collaborating with academic and research institutions and utilizing research results in the uses and products of the company. B&T COMPOSITES has been distinguished and was granted the "Small Business Excellence Award" by the Federation of Industries of Northern Greece (FING) in 2015. During the years 2013-2015, it implemented investments totalling approximately three million euros in machinery and equipment through the NSRF, the development law and research programmes.
	In the company, the dimension of **responsiveness and reflexivity** to developments is related to the great importance given to investments in production facilities, high-level machinery as well as last-generation technology and scientific know-how. The plans regarding energy developments and environmental protection have to do with photovoltaic systems, solar panels, water saving systems as well as recycling of materials used by the company.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	The high-level knowledge and experience and the top-tier collaborations with companies abroad give added value to the future business actions concerning the new framework of energy transition in our region. The use of composite materials in the products managed by the company achieves a high market penetration in the industry, particularly in relation to wind turbines, natural gas installations, electricity transmission networks, transport networks, all of which are issues of great interest in the context of the delignification of the region and the new energy and industrial policies.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice. ■ Stakeholders with high levels of experience in RRI.
How can stakeholders contribute to the adoption of RRI principles and the AIRR dimensions with territorial governance?	The company has built high-level research collaborations in the context of technological developments through participation in research programmes, thus creating high-quality research and innovation in the region through collaborations with research and academic institutions. As mentioned above, it has numerous collaborations with companies abroad, and its activities contribute to environmental protection.
Website of the organisation	https://www.btcomposites.gr/

9.2 Mapped RRI stakeholders in the Sofia Municipality

■ **Policy-makers**

Name of stakeholder organisation: **Programme Europe of Sofia Municipality**	
Profile of the organisation	Programme Europe is a small grants programme of Sofia Municipality, supporting NGOs and civil society organisations, registered on the territory of the city. It has been in operation since 2009. The Programme's priorities focus on the transfer of good EU practices to Sofia.
	Programme Europe was designed to encourage civic participation in the territorial development. It has developed into an innovation for the Sofia Municipality programme for public participation in local policies, as well as into a tool for transferring best practices from across Europe into local government/public sector. The Programme was the first one in Sofia to provide funds for the implementation of civic ideas and initiatives, thus encouraging citizen participation of in the activities and projects for the city.
	The Programme is managed by a Programme Council, comprised of municipal councillors and chaired by the Deputy Mayor for culture. The Programme priorities are defined by the Sofia Municipal Council, while the Programme Council is responsible for the strategic management and reports to the Municipality on the implementation of the Programme.
Relevance of Responsible Research and Innovation to the stakeholder	The successful implementation of the Programme is an example of the good collaboration between local authorities and the civil society sector, academia, business, creative entrepreneurs, representatives of the European institutions in Sofia and the cultural centres of the European Union member countries. The involvement of all these actors is a guarantee for the formation of a stable civil society, able to contribute to the development of Sofia in line with the latest European trends.
Relevance of RRI keys to the stakeholder	The RRI principles are relevant for the Programme, because it uses public money and works with civil society. The two most relevant keys are **public engagement** as the Programme supports civil society projects, and **open access** since grant recipients are required to make their deliverables and outputs public and accessible to all.
	The application guidelines have provisions regarding **ethics**. Each beneficiary is responsible for copyrights; guidelines also state that no hate speech and no discriminative actions are tolerated. There are no requirements regarding **gender equality**, and gender is not an evaluation criterion for Programme applicants.

Relevance of AIRR dimensions to the stakeholder	**Self-assessment** is performed on operational level, although no official procedures exist. However, there is an annual Programme audit, which provides recommendations for improvement. Regarding the **responsiveness**, due to the coronavirus lockdowns in 2020, the Programme let beneficiaries adjust their project activities so that they could be implemented during the lockdown. Experts at the Programme worked individually with each beneficiary to help them adapt their project to the new realities. The application process was simplified as well by reducing the number of documents to be submitted.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	Programme Europe supports through grants the implementation of all 4 policy priorities, chosen by Sofia Municipality for the RRI-LEADERS project: **innovation, digital transition and digital skills, youth employment and entrepreneurship, and sustainable urban development**. In 2021, Programme Europe provides grants for the implementation of projects in all four areas. A call for proposals is published each year and the specific thematic priorities and the project budget are voted by Sofia Municipal Council. The Programme supports digitalisation and the application process is online. Most of the meetings and paperwork are done digitally. In 2020, administrative reporting was done electronically, but financial reporting required some paper documents. Young people need to be engaged in public activities and be more entrepreneurial. To support this, kindergartens are also eligible to apply for funding from the Programme in order to develop early-age intervention models. Sustainable urban development is a top priority of the Programme (e.g. reconstruction of public spaces, infrastructure, residential areas, etc). Here, partnership between civil society and local governments is key.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The benefits of the Programme for the Sofia Municipality are huge. This Programme was designed with the aim to become a platform for collaboration between civil society and local authorities, thus incorporating the public engagement principle of RRI as well as some AIRR dimensions, particularly anticipation, inclusiveness and responsiveness, within territorial governance.
Website of the organisation	http://www.evropa-so.bg/bg/

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Name of stakeholder organisation: **Sofiaplan**	
Profile of the organisation	Sofiaplan is a municipal enterprise responsible for the spatial and strategic planning of Sofia Municipality in the area of sustainable development. Some initiatives in this field include: Green Sofia initiative, development of green areas registry, map of nurseries and kindergartens, map of schools, monitoring of immovable cultural heritage, mapping and evaluation of eco-system services, urban agriculture development and many others.
	Sofiaplan has a multidisciplinary team of about 30 experts, working in active dialogue with different stakeholders. Experts collect and analyse data on numerous aspects of the urban environment and municipal development and are responsible for making policy proposals to Sofia's Municipal Council, the Mayor, district mayors and the deputy mayors.
	The major projects of Sofiaplan are: Vision for Sofia (Strategy for the development of Sofia Municipality until 2050), Plan of Sofia (the current General Urban Plan and its upcoming renewal) and Programme for Sofia (Integrated Municipal Development Plan 2021-2027).
Relevance of Responsible Research and Innovation to the stakeholder	The RRI framework is relevant to Sofiaplan, because its key principles include transparency in strategic and spatial planning as well as opportunities for citizens' and experts' participation in the dialogue about the city's future. Furthermore, Sofiaplan cooperates with other municipal bodies, researchers and universities, NGOs, industry and business organisations, thus adhering to the RRI principles.
Relevance of RRI keys to the stakeholder	The modus operandi of Sofiaplan adheres to the RRI principles. The application of the RRI keys at Sofiaplan is mainly related to the sustainable urban development topic, which is the focus of its activities.
	Public engagement is very important for sustainable urban development. Sofiaplan actively cooperates with organisations that are interested to participate in the policy design in a certain topic/field. Sofiaplan also strives to raise the sensitivity of citizens towards urban planning policies in Sofia, as policymakers tend to support such policies only when they are driven by the public interest.
	Open access has a key role because it gives legitimacy to policies – it confirms that they were developed on the basis of scientific facts and research. Sofiaplan is currently working on a technological solution that will provide access to all raw data, gathered during the development of Vision for Sofia.
Relevance of AIRR dimensions to the stakeholder	All AIRR aspects are important for Sofiaplan.

	Anticipation is practiced to a certain extent. The assessments and scenarios are key elements of Sofiaplan's work used to inform policymakers about prospective developments and outcomes in the city. **Reflection** is performed through regular meetings to discuss problems, plan activities and to brainstorm about ways to improve the work process. Regarding **responsiveness/adaptability**, Sofiaplan regularly observes relevant processes in the city, including their development over time, because this is an essential part of the work of the organisation. The team is very adaptive and flexible in adding and applying new working methods and instruments as all employees always look for the most efficient way to perform their work.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	All four policy areas are relevant and connected to the work of Sofiaplan, but **sustainable urban development** is the most important topic as it is the focus of their activities. Since Sofiaplan is a municipal enterprise, responsible for all aspects of spatial and strategic planning in Sofia, it is one of the major stakeholders to contribute to the development of the RRI-LEADERS transformative outlook. On the one hand, the company has the necessary expertise in sustainable urban development, and on the other hand, it could make proposals for policy developments to Sofia's Municipal Council, the Mayor, District Mayors and the Deputy Mayors. Sofiaplan is also a pioneer in the Sofia Municipality regarding **digitalisation**. Sofiaplan has made a proposal to transfer the model of its digital database to Sofia Municipality and has promoted other digital work methods as well.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As Sofiaplan is a municipal enterprise, its involvement in adopting the RRI principles and the AIRR dimensions will have direct positive impact on policy development and implementation in the area of strategic and spatial planning at municipal level. As spatial planning concerns all citizens, living in the city, their participation in the process will lead to higher public satisfaction and acceptance of the end result.
Website of the organisation	https://sofiaplan.bg/en/index-en/

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Name of stakeholder organisation (and abbreviation): **Sofia Investment Agency (SIA)**	
Profile of the organisation	Sofia Investment Agency (SIA) is part of the administration of Sofia Municipality. It offers a **one-stop service** for foreign companies, entrepreneurs and start-ups, looking to set up business in Sofia. The Agency supports companies to launch operations as fast and effortless as possible. This is done by connecting businesses with relevant local actors (other businesses as potential partners, universities/research, public bodies, etc.), explaining local legislation, delivering benchmarking services within the respective industry, providing analyses on business climate, investment incentives, strategic location factors, etc. The services of SIA cover all stages of setting up a business - from initial data collection and benchmark analysis to networking and the actual business launch.
	SIA facilitates Public Private Partnerships between Sofia Municipality and foreign/local businesses. The Agency is also responsible for privatisation and post-privatisation control on the territory of Sofia Municipality. Locally, SIA aims to connect businesses, academia and administration and to facilitate new entrepreneurship and business ventures.
Relevance of Responsible Research and Innovation to the stakeholder	SIA serves as an intermediary between businesses and academia. This is a priority area in its work, because such collaborations are reflected in improved planning and availability of professional and highly skilled human capital.
	Due to this role of SIA, RRI is very relevant and applicable to the Agency. Even though RRI principles have a non-legal status, the Agency dully adheres to them. The RRI framework is perceived as an adequate and realistic framework, which allows for measurement and standardisation of results between EU countries.
Relevance of RRI keys to the stakeholder	The two most important RRI keys for SIA are public engagement and open access.
	In the context of public engagement citizen input is important in order to stay abreast of new developments and to be aware of public needs. Public engagement is also a form of monitoring and external evaluation, helping the agency to improve the way work is done.
	Open access is a key factor for innovation and development. Data sharing will accelerate progress and innovations. Moreover, by comparing the Agency's work to other initiatives, one can build upon what has already been done, rather than duplicating efforts.
	Gender equality is important, regardless of the field of work.
Relevance of AIRR dimensions to the stakeholder	At SIA, **anticipation** encompasses the following activities: ■ Statistics/data analyses are required to be able to plan ahead and implement policies and projects. Data ensures the predictability

and reliability of foresight scenarios. Because of that, SIA offers data, prognostics and future scenarios to potential investors so they can plan their investment strategies.

■ Communication with stakeholders as their input is needed in order to be aware of current realities and potential future trends.

Inclusiveness: Public engagement is needed as corrective and timely input of ideas and information coming from either citizens, clients or end users of services. Consultations with experts is of crucial importance as they provide the point of view of international actors, share good practices and are able to outline possible trends for development.

Self-assessment is paramount for SIA's work, because without it, the Agency will not have a realistic picture about the current situation. In practice, this means setting up and following achievable KPIs, because measurable indicators are important for ongoing monitoring of the work progress, regardless of the specific area.

Responsiveness/adaptability:

■ All viewpoints need to be considered as they belong to citizens/members of the community.

■ Representatives of the administration, policymakers and businesses need to be involved in a dialogue and exchange ideas with one another as well as with stakeholders and citizens.

Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The Agency has a stake in all the following priority areas (**Innovation support; Digital transition and new skills; Youth employment and entrepreneurship; Sustainable urban development**): ■ Support for innovations is key to build a smart city, as set in the Strategy for digital transition of Sofia. ■ Innovations mean value-added technological development in critical urban-development areas such as clean air, infrastructure, built environment. The same advantage can also be gained through digital transition. ■ Regarding youth employment and entrepreneurship, SIA participates in initiatives for entrepreneurship, offering mentorship and trainings for team building and enhancing management capacity. Entrepreneurial thinking from an early age and subsequent tailored programmes are critical for building the workforce of tomorrow. ■ SIA also organises lectures at universities, aiming to introduce students to investment opportunities, internships, employment and funding opportunities in Sofia and abroad. ■ Urban development naturally features in all of these sectoral policies, as improving the city environment is key for building resilient and competitive cities.

Relevance of the organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	SIA is part of Sofia Municipality and its objective is to attract and retain talented entrepreneurs and researchers, who will help the city become a centre of innovation, SIA's involvement in adopting the RRI principles and AIRR dimensions will contribute to the work of territorial governance so that is in line with the latest governance trends of co-design and co-creation of policies. As a result, involved stakeholders will develop a sense of ownership over these policies, thus making them applicable and sustainable.
Website of the organisation	https://investsofia.com/

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Name of stakeholder organisation: **Sport and Youth Activities Directorate of Sofia Municipality**	
Profile of the organisation	The Sports and Youth Activities Directorate designs and implements the municipal policies in the field of physical education, sports and youth activities. The Directorate includes two departments, namely the sports department and the youth activities department.

The sports department has several functions:
■ Organisation, control and coordination of extracurricular activities of educational institutions in Sofia in the field of physical education, sports and tourism.
■ Coordination and control of Sofia Municipality programmes in the field of physical education, support and development of children and youth sports.
■ Assistance in the implementation of regulations of Sofia Municipality for the management of municipal sports facilities.
■ Maintenance of an information database for municipal sports infrastructure and implemented sports projects.
■ Support of the activities of civil society structures, sports clubs and educational institutions related to sports and healthy lifestyle.

The youth activities department has the following functions:
■ Organises activities supporting the implementation of the Municipal Strategy for Young People.
■ Coordinates and controls project funding of youth activities under Municipal programmes.
■ Participates in consultative and public councils on youth activities and policies.
■ Maintains an information database for the activities of educational institutions, universities and NGOs applicable to civic |

	and health education as well as initiatives for the prevention of social exclusion of disadvantaged young people. ■ Supports youth volunteering, civic activity, personal and career development of young people, prevention of risky behaviour, health and civic education. ■ Assists in the administrative services and organisational activities of the Advisory Council for Youth Policies. The Directorate also coordinates the activities of the Council for Child Traffic Safety at Sofia Municipality and supports the implementation of the municipal Programme for the protection of the life and health of children as participants in road traffic.
Relevance of Responsible Research and Innovation to the stakeholder	All aspects of RRI have a high relevance to the work process of the Directorate, considering that it is the part of the municipal administration responsible for developing and implementing policies, related to children and young people.
Relevance of RRI keys to the stakeholder	The most important RRI key for the Directorate is **public engagement**. The inclusion of various actors (schools, businesses, parents, students) implies a sort of a 'public contract' between them in terms of shared responsibility, transparency, and accountability. Moreover, public engagement is important for getting valuable feedback from the citizens, which is necessary to correct and improve the administration's work. **Open access** is also considered important. **Research ethics and science education** are moderately important for the Directorate. Regarding **science education**, experiential learning needs to be encouraged among children and teenagers as learning by doing is more important than the traditional delivery of knowledge and information by the teachers. An interesting fact regarding **gender equality** is that women entrepreneurs are more active than men. Out of 58 participants in the Academy of Visionaries (a new programme led by the Directorate since 2020, which supports young people in the age group 15-29 years to develop their individual projects), 40 are women. Statistics also reveal that youth unemployment affects young men disproportionately.
Relevance of AIRR dimensions to the stakeholder	**Anticipation** is considered crucial for the policy development and implementation of the Directorate. **Inclusiveness** is regularly applied at the Directorate. Public consultations, focus groups and open days are widely used. However, experience shows that citizens seem to be more active in filing complaints, rather than in actively cooperating with the municipality on addressing concrete issues.

	Regarding **self-assessment**, the Directorate has a risk assessment strategy, which is updated annually. In addition, external audits are conducted every four years. Programme beneficiaries also provide feedback on project implementation, which is used for ongoing assessment about the level of interest in the grants, their impact, the type and number of applicants, etc.
	In terms of **responsiveness/adaptability**, 10 years ago, there was only one funding programme for sport activities at kindergartens and schools. Since then, there was a strong interest in other topics and areas of funding, but based on input and proposals from potential beneficiaries, the programme's scope was revised and expanded to new areas as well.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	From a policy perspective, especially in the field of **youth employment and entrepreneurship**, the Sports and Youth Activities Directorate at Sofia Municipality is a stakeholder with primary importance. It is the actor that creates suitable conditions for the implementation of the municipal policy for youth employment and entrepreneurship – an area directly linked to access to education and assurance of its quality. There are programmes for prevention of school drop-outs as this is one of the biggest problems in the educational system on the territory of the city.
	Furthermore, the Directorate is responsible for organising school and career fairs, school/municipal festivals and information fairs on the territory of Sofia.
	The latest initiative is the Academy for Visionaries that focuses on youth employment and entrepreneurship. Its goal is to support young people in the 15-29 age bracket to develop their individual projects, related to different social causes and/or entrepreneurship activities.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As the Sports and Youth Activities Directorate develops and coordinates a wide array of policies and initiatives for children and teenagers, the adoption of the RRI keys and the AIRR dimensions is of critical importance. RRI keys and AIRR dimensions will contribute directly to a transparent co-design policy process, involving all relevant stakeholders who will collaboratively develop policies and initiatives, targeted at one of the most important and at the same time vulnerable societal group, namely children and youth.
Website of the organisation	https://www.sofia.bg/en/web/mayor-of-sofia/structure-of-administration

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Name of stakeholder organisation: **Innovative Sofia** - Digitalisation, Innovation and Economic Development department of Sofia Municipality	
Profile of the organisation	The Digitalisation, Innovation and Economic Development department of Sofia Municipality was established in 2020 to support Sofia's development as a smart, digital, innovative and tech city. It works in close collaboration with the Deputy Mayor for Digitalisation, Innovation and Economic Development. The department will consolidate and guide all of the city's digital and smart city projects and will support high-tech and R&D investors in Sofia. It will focus on increasing the number and quality of municipal e-services, open data and smart city projects implementation. Innovative Sofia's objectives include: ■ Reducing the administrative burden and providing more and better e-services to citizens and businesses. ■ Supporting the development of the business climate in Sofia, the ability and the capacity of the city to attract investments, human capital, and innovation. ■ Turning the city into a market for the ICT sector and a platform for innovation. ■ Facilitating the innovation potential of the technology companies in Sofia.
Relevance of Responsible Research and Innovation to the stakeholder	Responsibility in research and innovation is perceived as enabling and encouraging an effective dialogue among all relevant stakeholders, including public institutions, research and academia, Sofia Tech Park, CSOs, businesses, foundations, clusters, associations. It is important to engage all these actors because sustainable urban development does not depend only on the municipality, its departments and various municipal enterprises. The active involvement of all relevant actors in the eco-system as well as strong cooperation among them is absolutely necessary. Most of the activities undertaken by Innovative Sofia are in line with RRI principles.
Relevance of RRI keys to the stakeholder	Several strategic documents have direct relation to RRI – the Innovation Strategy for Smart Specialisation of Sofia, the Digital Transformation Strategy, the Strategy for Smart Specialisation of Bulgaria, the National Scientific Research Strategy of Bulgaria, the work of the National Science Fund and the Ministry of Education and Science. All five RRI keys are represented in the activities of Sofia Municipality, however, gender equality is not a problematic issue in Sofia. **Public engagement:** It is very important to include citizens in the design of policies and long-term visions, so that a social consensus can be achieved through discussion and exchange of different views and

	ideas. The municipality already has many online mechanisms for consultations with citizens, and the focus is on optimising the process and expanding the scope. A good example is the Digital Transformation Strategy for the City of Sofia, which was developed through consultations with over 100 stakeholders (from universities, research organisations, businesses, associations and clusters) and was then validated by citizens. Another good practice was the process for creating the Vision for Sofia until 2050, where numerous citizen surveys and inquiries, made over a four-year period, were used as input for its development.
	In 2020, Sofia Municipality launched an official [Viber community for COVID-19](), where important information about the situation in the city and current measures affecting the citizens of Sofia are published on a daily basis.
	Science education is the most important element, if considered more broadly than STEM, including life-long learning entrepreneurial, leadership and other soft skills. At the moment, Innovative Sofia is involved in the development of a digital education platform.
Relevance of AIRR dimensions to the stakeholder	**Anticipation** is a very important aspect allowing short and long-term planning as well as quicker response to unexpected situations. For example, the Digital Transformation Strategy of Sofia includes many aspects of anticipation. Anticipation was also applied when elaborating the Vision for Sofia that looks at the development of Sofia in seven policy areas, with a time horizon to 2050.
	Inclusiveness: The processes of engaging and consulting citizens, experts and stakeholders during the elaboration of Vision for Sofia 2050 is an excellent example of inclusiveness. More than 400 multidisciplinary meetings were held as well, meetings on the spot with residents of the different districts of the city, and close to 20 surveys were conducted on different issues to address information gaps. Dialogues for Sofia were also conducted. These are participatory, future-oriented events, bringing together diverse stakeholders, policy makers, activists and citizens, to discuss on challenges facing the city, and to co-create possible solutions providing benefit to all parties involved.
	There are internal procedures for **self-assessment** at Sofia municipality, but they vary across departments and municipal units. These procedures are often updated to include new indicators for quality control and effectiveness as well as for process monitoring. One of the main goals of Innovative Sofia is the digitalisation of these processes, which will undoubtedly improve the process of self-assessment and reflexivity.

	Responsiveness: The municipality is quite responsive. A good example of this is the COVID-19 crisis, during which several new tools and measures have been introduced such as information for citizens, support to businesses, measures for support of city transport, quality of air.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The policy areas, most important to the work of Innovative Sofia, are **support for innovation and digital transition**. The main goals of Innovative Sofia are to facilitate digital transformation across all urban governance processes in the municipality and to achieve administrative reform. The aim is also to transform Sofia into an engine of digitisation and smart-city activities into a city that stimulates innovation. An important programme of Innovative Sofia is the 'Sandbox for Innovative Solutions'. It supports pilot projects for testing innovative tech solutions on urban challenges, such as environment, utilities, education, transport, e-government, entrepreneurship, innovation, etc., as defined by the city administration. The importance of Innovative Sofia within the territory is huge as it is part of the municipal administration.
Relevance of the stakeholder to objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice ■ Stakeholders with high levels of power
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Innovative Sofia is a department within the municipal administration, and therefore an official representative of territorial governance and as such it could promote the adoption of the RRI and AIRR principles to relevant actors in the eco-system of the city and to other public bodies on municipal and national level, research and academia, CSOs, businesses, foundations, clusters. RRI and AIRR principles could also be adopted by associations, such as BESCO (Bulgarian Start-up Association), BASSCOM (Bulgarian Association of Software Companies) and BRIGHT (IT management consultancy) in IT sector, Artificial Intelligence Cluster Bulgaria, Bulgarian Fintech Association, as well as Sofia Tech Park, etc.
Website of the organisation	www.innovativesofia.bg

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Name of stakeholder organisation: **State Institute for Culture** at the Ministry of Foreign Affairs	
Profile of the organisation	The State Institute for Culture at the Ministry of Foreign Affairs plays an important role in international cultural relations of Bulgaria. It supports the successful implementation of Bulgaria's foreign policy priorities through cultural diplomacy. In order to achieve its aims, the Institute:

	■ Supports programmes and projects, focusing on cultural diversity and intercultural dialogue. ■ Promotes the establishment of direct relations between Bulgarian cultural operators and their counterparts abroad to create opportunities for the presentation of Bulgarian culture both on the European and the global cultural scene. ■ Supports and implements cultural projects and programmes that contribute to the transformation of cultural cooperation into integrated intercultural dialogue according to the European Union's cultural agenda. ■ Supports the coordination of activities, dedicated to international cultural policy, of both governmental and non-governmental organisations. ■ Encourages cultural organisations to broaden their geographic scope in promoting Bulgarian history and culture. ■ Offers professional assistance in the implementation of bilateral and multilateral cultural projects and events to Bulgarian diplomatic missions.
Relevance of Responsible Research and Innovation to the stakeholder	The Institute collaborates with other cultural and historical institutions on the implementation of various cultural projects, therefore most of RRI principles are relevant to it in this regard. Some of the Institute's projects, such as exhibitions focusing on historical figures important for gender equality, the role of women, women's rights, highlight the gender equality. At the Institute, responsibility is associated with a strict application of one's legal duties, a sound financial management, carrying out work within the set deadlines.
Relevance of RRI keys to the stakeholder	**Ethics** is very important, because trust in the science can be built only by ensuring ethical standards and procedures in the public research sector. **Open access** is mandatory for the work of public institutions. Sharing information/data and cultural artefacts with other cultural/historical institutions is a necessity when implementing different projects. The Institute works with researchers and scientists and this is an opportunity to validate and make their research visible. Cultural diplomacy has the potential to help researchers gain international recognition and publicity for their accomplishments. **Gender equality** is reflected differently in the Institute's work, depending on the respective project/theme. **Science education** is also considered important.
Relevance of AIRR dimensions to the stakeholder	**Anticipation** is obligatory for good governance and two essential elements in this respect are risk analysis and cost-benefit analysis.

	Regarding youth employment, it is important to have careful planning of resources, internships and assignments for young people. Well-planned youth programmes are also a good instrument for assessing the skills that young people need to possess.
	At the Institute, **inclusiveness** is related to integrating young people in the process of decision-making and institutional practices. This is done by gradually building up the level of responsibilities, assigned to young people and new employees. Based on their level of involvement, one can also assess the interest and potential of young people for the specific job. More generally, inclusiveness also relates to team building, forming groups of interest, managing different types of collaborations, etc.
	Reflexivity (self-assessment) is related to evaluating the sustainability of an employee's work and also to measuring the effects of investing in young people. At the Institute, self-assessment is conducted through team meetings at which the performance of employees or of student interns is evaluated.
	Regarding the aspect of **responsiveness/adaptability**, the Institute is flexible and feedback from young people is sought in order to ameliorate the Institute's operations and methods of work.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The activities of the Institute are related to two of the selected policy areas, namely **support for innovations and youth employment and entrepreneurship**. The Institute supports young people by offering internships to help them acquire skills needed for employment. It also provides funds for innovative youth-initiated projects related to history and culture. One of the Institute's objectives is to support young people both in developing innovative cultural projects and in providing them with skills for employment. Therefore, the Institute's role within the territory is closely related to supporting youth in the context of the two policy areas mentioned above.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As a state body, supporting innovations and youth employment, the Institute can promote the RRI and AIRR principles among the young people, who participate in the Institute's national programmes and/or internships as well as among the young artists it supports. Also, it can promote these principles during the implementation of the cultural projects it either participates in or supports. Furthermore, it can promote the RRI/AIRR principles among the other state bodies/institutions it collaborates with.
Website of the organisation	https://www.culture-mfa.bg/

■ Academia and research

Name of stakeholder organisation (and abbreviation): **Technology Transfer Office (TTO)** at the Institute of Information and Communication Technologies (IICT), Bulgarian Academy of Sciences (BAS)	
Profile of the organisation	The Technology Transfer Office (TTO) at the Institute of Information and Communication Technologies within the Bulgarian Academy of Sciences (IICT-BAS) was founded to conduct fundamental and applied research in computer sciences as well as information and communication technologies (ICT). TTO supports the establishment of a national innovation infrastructure in the sectors of Energy Efficiency and Information and Communication Technologies. This infrastructure will potentially be a key factor for the development and enhancement of the 'science-to-business' perspective, for the promotion of new knowledge, and technology transfer towards Bulgarian enterprises in support of their competitiveness and sustainable development.
Relevance of Responsible Research and Innovation to the stakeholder	The guiding principles of TTO are inclusion of a wide spectrum of experts in the processes of innovation; support to the cooperation between various parties; effective investigation of ideas, selection and identification of the good ones; encouraging experts to actively participate in the processes of innovation; and sharing ideas in the context of partnerships established by the TTO. These principles largely adhere to the RRI framework.
Relevance of RRI keys to the stakeholder	**Note**: The information below is relevant to both TTO and BAS. Science needs to meet the needs of both society and industry and be able to address social and economic problems. It is essential to provide **open access** to scientific and research data and results as well as to produce knowledge that has positive social impact. Moreover, the Ministry of Education and Science has defined open access as one of the indicators for assessment and ranking of universities and research organisations in the country, and BAS abides by this requirement. All national programmes for science and research require open access to publications and research results. Regarding the **ethics** key, while it is not mandatory, BAS encourages researchers to adhere to the ethical standards documented in the European Charter for Researchers. **Involvement of scientific organisations in territorial development** has been in focus since 2012, when an Expert Council for Science, Technology and Innovations was established at Sofia Municipality. Its aim was to support the Mayor's office, which is considered a good practice in Bulgaria and is also recognised as such by the European Parliament.

	Another good practice is the establishment of the research and industry laboratory "Industry i2030" (RILab i2030) in May 2019 at the Bulgarian Academy of Sciences, and in partnership with Sofia Municipality, Sofia Development Association and Sofia Investment Agency. RILab i2030 aims to integrate science, business and education in the field of digital technologies. It also offers support for research, joint innovation and research projects to SMEs and high-tech industries. The Lab helps businesses to commercialise the results of research, supports technology transfer as well as helps companies to exploit innovative products. RILab i2030 will further provide trainings to PhD students, postgraduates, undergraduates and high school students through practical STE(A)M work and internships. Regarding **science education**, many BAS institutes cooperate with schools in various projects, thus actively including science and research units in STEM education in schools. A School Institute (https://uchiban.eu/uchi-ban/) was established at BAS in 2014 with the objective to provide an opportunity to high school students to engage in research in all scientific fields from natural, social and humanitarian science to art. Students create projects on topics of their choice that have specific objectives and a methodology to ensure successful project completion. The purpose of this action is to stimulate their creativity and entrepreneurship.
Relevance of AIRR dimensions to the stakeholder	**Anticipation, inclusiveness and responsiveness** are important for the work of TTO. Regarding research objectives, the TTO strategy is both reactive and proactive. The Institute has executed a number of innovation projects as a response to the needs of the industry and in some cases, it develops innovations that are considered visionary by the TTO team. Also, TTO transfers technologies by offering research equipment to SMEs so that they can conduct research. The Institute supports people from the business sector in the process of their doctoral thesis development and/or research.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The policy field that is most relevant to TTO at IICT-BAS is **digital transition and new skills**. BAS is not only a major stakeholder within the Sofia municipality, but it also gathers some of the other main actors within the RILab i2030. TTO cooperates with all actors in the innovation eco-system. At national level, it cooperates with the Bulgarian Small and Medium Enterprises Promotion Agency (BSMEPA). TTO considers that new technologies are essential for both schools and higher education institutions. A good practice in this respect is the School Institute of Mathematics and Informatics at BAS, targeted at middle and high-school students. As it proved very successful, there are plans to establish similar institutes, dedicated to physics and

	robotics so that both students and teachers get access to new knowledge and skills. In the long term, there is an objective to establish one such institute in every school in Bulgaria in order to encourage STEM education, resulting in a new generation of young scientists.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The Bulgarian Academy of Sciences is one of the major stakeholders in the research and innovation field in Bulgaria. As a consequence, the involvement of BAS in the formal adoption of the RRI principles and AIRR dimensions will bring a qualitative change in the overall operation of actors in the innovation eco-system. There will also be a positive impact on research organisations and academia, the private sector as well as public institutions and the way they design policies.
Website of the organisation	https://ott-iict.bas.bg/ENG/index_EN.php

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Name of stakeholder organisation (and abbreviation): **International Business School** (IBS)
Type of stakeholder: Academia and Research

Profile of the organisation	The International Business School (IBS) is an independent, private higher school, established in 1991 as the first private higher college in Bulgaria with international affiliation, the Bulgarian-Danish College of Business, Export and Marketing. In 2002, it was transformed into a specialised higher school, the International Business School and was accredited by the National Evaluation and Accreditation Agency for degree programmes at bachelor's, master's and doctoral levels. The mission of the IBS is to change life, economics and society by means of business education and scientific research. It pursues its mission by integrating several important components including education and teaching, research and engagement with stakeholders. **Education and teaching aim** to develop motivation for lifelong learning to all students and scholars, so that they can effectively and responsively reach their full potential for leadership in different business organisations and communities. **Scientific research is designed** to achieve substantial research and exploratory contribution in order to respond to major current issues in businesses and management practices at national and international level. **Engagement with the community focuses** on contributing to the successful economic development and the adequate integration of

	Bulgaria in the global economy by means of transfer of knowledge, competencies, innovations and human potential.
Relevance of Responsible Research and Innovation to the stakeholder	Being a research-performing academic institution, the RRI framework is relevant to IBS activities. Research is conducted by different research teams and interaction and cooperation among them are important at all stages of the process. **Open science** means that no scientist can work individually. Responsibility is part of the cooperation of the R&I teams and is also linked to the social impact of science. In addition, it is important to recognise that the involvement of science, business and academia is necessary in R&I. In the context of open science, responsibility means the proper management of intellectual capital, fair use of scientific results and respect for intellectual property rights. In addition, the Ministry of Education and Science (MES) recently adopted a strategy for Open Science which is to be adopted by universities.
Relevance of RRI keys to the stakeholder	In general, the RRI framework and its five principles are applicable to understanding responsibility in research at IBS. The five principles, in essence, are reflected in many IBS' documents. For example, the IBS Code of Ethics includes provisions on academic integrity and plagiarism. There are also regulations for doctoral students and academic tenure/promotion. The Code of Ethics is applicable to all IBS' staff members.
	Ethics addresses issues in the procedures for performance assessment of staff. IBS also uses software for detecting plagiarism.
	Open access is provided to all academic/research publications, because they are published in open-access repositories of scientific research.
	Science education is included in the curriculum of IBS, and students are involved in accreditation procedures, in projects, etc. Specific indicators in these areas are included in the national annual university ranking system.
	Public engagement is very important, because it encourages science cooperation, development of publications and support to young researchers. IBS complies with the Higher Education Act and the accreditation procedures by the National Accreditation Agency, which require cooperation with the business community, public institutions, students, etc. For example, IBS cooperates with Junior Achievement Bulgaria and with high schools in order to engage and attract young people in science projects. Teachers from the so-called Innovative Schools are trained at the International Business School, which also allows teachers to get involved in science and research projects.
	Gender equality is important, but not a problem for Bulgaria. In fact, at IBS women are better represented than men. However, when

	evaluating gender equality, one needs to keep in mind that academic achievements matter most in terms of position distribution between men and women.
Relevance of AIRR dimensions to the stakeholder	IBS has a development strategy for higher education and research, which is in line with the National Research Strategy and the National Innovation Strategy of Bulgaria. Each year, IBS reports to the Ministry of Education and Science about achievements related to the priorities for smart specialisation. IBS also follows a quality assurance system, which includes annual risk assessment plans and SWOT analysis.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	IBS and its programmes contribute directly to the **youth employment and entrepreneurship** policy area. IBS offers a MA programme on entrepreneurship and management, in cooperation with ARC Fund. IBS is strong in collaborating with partners from various sectors such as business, tourism and security. For example, IBS has a programme council where business representatives participate and as well IBS students have direct access to the businesses. This is directly linked to support for innovations. IBS marketing programmes offer courses on digital content, digital marketing, etc.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	IBS can include the RRI principles and AIRR dimensions in its Code of Ethics. IBS can also promote RRI/AIRR principles to stakeholders through the collaborations that it makes; it collaborates with other academic institutions in the country through joint projects, academic fora, joint publications; it also forms collaborations with businesses such as marketing companies, consulting companies in tourism, professional associations in marketing and tourism.
Website of the organisation	https://ibsedu.bg/en

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Name of stakeholder organisation (and abbreviation): **Sofia University 'St. Kliment Ohridski'** (SU)	
Profile of the organisation	Sofia University 'St. Kliment Ohridski' is the first higher education institution in Bulgaria, established in 1880. Today, Sofia University (SU) is the biggest and most prestigious scientific hub in the country. It has 16 faculties with 119 special subjects being taught. Several independent units operate within the University: The University Library, the University Press with a printing house, a University Centre for Information and Communication Technologies, a Science Research Sector, and the University Botanic Gardens. There are also several museums: the Sofia University Museum; the Museum of

	Palaeontology and Historical Geology; and the Museum of Mineralogy, Petrology, and Ores and Minerals.
	The scientific activities of each faculty at SU are an obligatory part and an integral part of the teaching process. They are conducted in compliance with the Strategy for the Development of Scientific Research, which defines the priority research domains and delineates the long-term plan for systematic science and research activities addressing social needs.
	The mission of SU is to develop the scientific, educational and cultural potential of Bulgaria, whereby the new emphasis is on creating models for social development both by revealing the intrinsic ability of institutional change and the social results of such a change.
	Sofia University is the leader in the country in terms of number of participants in the students' and lecturers' mobility and the creation of European space in the domain of university education.
Relevance of Responsible Research and Innovation to the stakeholder	Broadly understood, science and research have responsibility to society. Scientists are expected to build schools of thought and research, to establish and support a culture of respect to science and this is more than relevant for a prestigious institution such as SU. Responsibility in research suggests motivated researchers, which in turn implies that a new value system shall be adopted.
	In 2019, SU received the "Human Resources Excellence in Research" award due to its HR strategy, which aligns the entire process from recruitment to career development of young researchers in line with the European Charter for Researchers. The university has carried out a gap analysis and has initiated university-wide discussions regarding the principles of academic promotion and faculty development.
Relevance of RRI keys to the stakeholder	In principle, the five RRI keys are useful and SU strives to integrate them in its research policies, but their implementation in practice is still difficult.
	Public engagement is very important for Sofia University – SU communicates and collaborates with many institutions in this respect organising career fairs, working with young researchers, or doctoral students.
	At SU, **gender equality** is not an issue, because women are more prominent in leadership positions than men.
	In terms of **science education**, there is a need for a stronger collaboration with teachers and educators.
	As regards **open access,** SU is a member of the European Open Science Cloud.
	SU has **ethics** codes and academic integrity codes, implemented according to the national legislation. Also, the HR award received by

	SU led to the adoption of new internal regulations concerning tenure and academic promotion, the appointment of researchers and intellectual property rights.
Relevance of AIRR dimensions to the stakeholder	Regarding **anticipation** foresight is used only rarely, and not by all University departments, aimed at updating or adapting the education programmes and curriculum.
	Inclusiveness is considered extremely important. SU strives to collaborate with public bodies and other stakeholders and it is worth noting that very good partnerships have been established in the field of ICT.
	Assessment/reflexivity takes place as periodic evaluations which are performed as per the requirement for the annual national university rating system. Also, the work executed for the HR award has improved the administrative procedures regarding researchers' development.
	In the matters of **responsiveness,** in principle, SU is adaptive and reacts to changes in the environment.
Importance of the stakeholder within the territory in the context of the chosen policy focus	The policy areas that are of relevance to the University are **digital transition, support for innovations, and youth entrepreneurship**.
Relevance of the organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As the University is the largest and most prestigious educational institution in Bulgaria, it has the ability to be a trend-setter. As such, it could influence other academic institutions as well as other relevant main actors in Sofia, such as research institutes, industry, policy-makers, teacher's syndicate, schools, NGOs, active in STEM development, ICT cluster, Junior Achievement Bulgaria. Therefore, it is potentially contributing to the spread of the RRI/AIRR dimensions among all these actors.
Website of the organisation	https://www.uni-sofia.bg/

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Name of stakeholder organisation (and abbreviation): **University of National and World Economy (UNWE)**	
Profile of the organisation	The University of National and World Economy (UNWE) is the largest and the oldest higher school of economics in Bulgaria and in South-Eastern Europe, established in 1920. According to its vision, UNWE shall be the leader among higher-education schools in South-Eastern Europe, focusing on two major activities: • educating students and • conducting research in the field of economics, management and administration.
Relevance of Responsible Research and Innovation to the stakeholder	RRI is important to UNWE, because in addition to educating students, the other major activity at the university is conducting research. The R&D objectives of UNWE include: ■ Developing scientific knowledge in the areas of economics, management, law and other scientific fields. ■ Ensuring scientific and methodical support to the educational process, organised by the university. ■ Enhancing the scientific qualification of university lecturers. ■ Stimulating creativity and ensuring conditions to develop the skills of undergraduate and PhD students. At UNWE, responsibility is mainly linked with societal engagement because of the pronounced need to focus scientific research on needs of society.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI keys are popular in the research community and most researchers apply them, although they do not recognise them under these names. The only exception is **ethics**, which is formalised in various codes. When it comes to **gender equality** and other aspects of non-discrimination, these principles are mandatory, and the research community considers them a norm. In the field of **science education**, the university offers courses for adults who want to continue their education. UWNE is interested in **engaging citizens** in setting up research priorities, and it will consider appropriate methods for collecting the opinions of citizens regarding scientific and research objectives of the university. Regarding **ethics**, UWNE is planning to establish an ethics committee. While there are no specific policies pertaining to individual RRI keys, all five are addressed to a certain extent by the in-house documents dealing with research and educational activities.

Relevance of AIRR dimensions to the stakeholder	**Anticipation** and systematic analysis of social impacts of research is mainly performed by researchers. Business is also involved in this process to some extent.
	Inclusiveness is a well-developed aspect and focuses on experts and representatives of the research community. Citizens are usually engaged as research subjects, e.g. in surveys and other methods.
	Self-assessment is regularly performed, as it is a legal requirement to be conducted periodically. It includes a comparison with other research organisations in Bulgaria and abroad. Regular accreditation procedures require self-assessment and external evaluation with recommendations for the next programming period.
	UWNE is **responsive** and adaptive to new developments. For example, many current research projects deal with different aspects of digitalisation, such as human resources, new international business realities, new businesses trends. Consequently, priorities and work methods change over time in order to respond to the latest trends and developments.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	**Digitalisation and news skills** are essential for UNWE. The university was well prepared for the online education introduced in response to the COVID-19 pandemic, because it has been developing a hybrid model of education, with strong attention to the online segment, in the last 10 years.
	Support for innovation is also a very important aspect at UNWE as both lecturers and students at the university are aware that contemporary national economies are dependent on innovations in order to stay competitive and increase their GDP.
	Youth employment and entrepreneurship are main educational foci of the university. The university has a MA programme on cities of the future.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	UNWE is one of the largest and most influential educational institutions in Bulgaria. It provides not only education but engages in research as well. Furthermore, its graduates make a career into various fields in the private and public sectors. UNWE is an important and influential actor that can contribute to the fastest adoption of the RRI principles and AIRR dimensions not only at academic institutions, but in all sectors where university graduates are active.
Website of the organisation	https://www.unwe.bg/

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Name of stakeholder organisation: **State University of Library and Information Technologies** (ULSIT)	
Profile of the organisation	The University of Library Studies and Information Technologies (ULSIT) is a state university, offering BA, MA and PhD programmes for the respective degrees. ULSIT has over 2,000 students and 150 lecturers. Graduates of ULSIT pursue careers in libraries, publishing houses, book-trading companies, the state administration and the information business, information centres and services, archive departments, museums, galleries and other cultural institutions. ULSIT has a rich publishing activity – monographs, the annual collection of "ULSIT Works", a university newspaper and the scientific journal "Izdatel". ULSIT is actively involved in the international cooperation in compliance with bilateral agreements with similar institutions in Russia, Germany, France, Poland, Serbia, Montenegro, Turkey, etc.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI concept is crucial for contemporary education and science, and represents an important driver of progress, as it allows adaptation to the rapid development of technologies. Universities need to be proactive and stay ahead of the innovation process.
Relevance of RRI keys to the stakeholder	All keys are relevant to ULSIT; however, these principles need to be analysed and applied within the context of the current digital transformation. **Open access** is one of the most important principles. It means openness to all groups of citizens, as science is funded by public money. Access to data needs to be provided by the administration at all levels. **Research ethics** is extremely important in relation to GDPR. **Science education** plays an important role in addition to STEM, entrepreneurship and technology are going to be critical for the future and responding to crises like the one caused by the Corona virus. **Open schooling and systems of informal education** are systems operating with the involvement of a variety of stakeholders. Education and communication happen not only in the classroom, therefore open educational resources (OER) become increasingly important, and there is an active interest in how they are used, distributed, funded, and made accessible to the wider public. Besides the question of responsibility (for OER), the certification of the knowledge and skills acquired through open schooling is also important.
Relevance of AIRR dimensions to the stakeholder	They are all important and there are numerous instruments to implement these dimensions in practice. What is needed in the

	Bulgarian context is to align to and follow developments at EU level, i.e. to adapt the EU methods to the local context.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The policy areas that are of relevance to ULSIT are **digital transition and new skills**, as well as **youth employment and entrepreneurship**. ULSIT offers BA, MA and PhD degrees to students in several fields such as Social Communications and Information Sciences, Informatics and Computer Sciences and National Security. Therefore, ULSIT has an important role within the territory as it equips with skills people, who enter the workforce in various fields of the economy after graduation. When research and academic activities at ULSIT are performed in line with the RRI keys and the AIRR dimensions, students will adopt this approach and will transfer it into their workplace, including the state administration, which is a potential career field of graduates.
Relevance of the stakeholder to objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Through getting involved in facilitating the adoption of the RRI keys and the AIRR dimensions, ULSIT could contribute towards the overall territorial governance to become more inclusive and responsive to the societal needs.
Website of the organisation	http://www.unibit.bg

■ Non-Governmental Organisations

Name of stakeholder organisation (and abbreviation): NGO Links	
Profile of the organisation	NGO Links is a non-governmental organisation established in 2002 in Sofia. Its mission is to establish sustainable relationships in the field of local development, civic participation and empowerment of individuals and groups. The aim of NGO Links is to create an open space in which different experts and professionals meet and unite their skills. NGO Links relies on a combination of new ideas and accumulated knowledge to achieve lasting results and constructive dialogue between representatives of civil society, government and business institutions.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI framework is very relevant to the digital transition in the territory of Sofia Municipality. Digital transition is in the focus of NGO Links, which works very actively in this field (promotion of e-government and the use of open data at all levels of governance). NGO Links has performed numerous analyses of local administration,

	good governance practices, transparency and accountability. It was involved in the elaboration of the Vision for Sofia 2050.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI key most relevant for the work of NGO Links is open access to information and scientific results, followed by public engagement, gender equality and science education.
	Open access to data, scientific outcomes, and other information of relevance can lead to important and sometimes unexpected positive results and consequences. In terms of open access, even when it is related to software or proprietary data, public interest should prevail.
	Regarding **public or stakeholder engagement**, it is necessary to introduce tools to inform citizens and to organise virtual public consultations at the municipal level. Public engagement is crucial since administrations need to be aware of the problems of the citizens.
	Science education is important because policies have to be developed on the basis of scientific data. Today information and expert knowledge are more important than ever, and science needs to be integrated into the educational process.
	Research ethics is extremely important for public policies, it needs to be observed strictly irrespective of any other less important aspects (i.e., such as timeframe).
Relevance of AIRR dimensions to the stakeholder	Since NGO Links serves as an intermediary between the different societal stakeholders in the process of policy design and implementation, all of the AIRR dimensions (**anticipation, inclusion, responsiveness, reflexivity**) are of high relevance to its activities.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	NGO Links is an organisation whose mission is based on the understanding that a strong civil society can be achieved only through the active involvement of empowered citizens in societal processes. According to NGO Links, sustainable results are stemming from the collaboration of civil society (the third sector), state institutions and businesses. As the organisation serves as an intermediary between these actors, it might have a central role across all chosen policy foci, however, its efforts are focused on promoting the e-government and the use of open data at all levels of governance. Therefore, the most relevant policy area for the organisation is **digital transition**.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR	NGO Links provides a forum for discussing various perspectives, gives opportunities for problem-solving, and ensures the needed experience in achieving a balanced and effective civil society. In its activities, it focuses on democratic values and mechanisms that

dimensions within territorial governance?	encourage individual participation and civic responsibility. Furthermore, its mission is to contribute to a strong civil society based on the active participation of citizens. Therefore, its activities contribute to the spread of the RRI principles as well as the AIRR dimensions.
Website of the organisation	http://www.ngolinks.eu/

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Name of stakeholder organisation (and abbreviation): **Rinker Centre**	
Profile of the organisation	Rinker Centre is a centre for entrepreneurship and training at the Bulgarian Charities Aid Foundation, established in 2014. Its mission is to support and develop entrepreneurship in Bulgaria. The Centre's programmes focus on creating opportunities for sustainable employment, increasing competitiveness, adding value and innovations and in this way aim to improve the quality of life in the country, mainly in the rural areas. The main activities of Rinker are targeted at developing the entrepreneurial culture among children and young adults. This is done by the provision of free trainings for acquisition of knowledge and skills for setting up a successful business. There are several training programmes available (e.g. training for young entrepreneurs; *Sprouts* – a competition for business ideas developed by children; social entrepreneurship competition targeting specific regions, sector or target audience; social entrepreneurship course at the Faculty of Economics and Business Administration at Sofia University). Rinker also runs a Resource Centre, providing information about social enterprises, case studies, statistical data and funding opportunities, and offering group and individual consultations. Rinker Centre further provides trainings for Bulgarian teachers, aiming to encourage the use of innovative technologies and interactive teaching methods, as well as trainings for work with students with special needs/learning difficulties and children from ethnic minorities.
Relevance of Responsible Research and Innovation to the stakeholder	For Rinker Centre, inclusion of young people in research and innovation processes is crucial – it is essential to make them a part of the creative process, not just as recipients, but as creators. Certain elements of the RRI framework, such as openness, inclusion, engagement, ethics, are therefore very relevant for the Centre.
Relevance of RRI keys to the stakeholder	From the viewpoint of an innovative entrepreneurial project, the objective is to make the innovation process as open as possible and to include a wide variety of stakeholders. **Ethics** in this context would

	be related to making the process socially responsible, because innovation needs to have a positive effect on society at large. The best-case scenario when developing projects is to invest in initiatives that will not only return the investment but will also have a positive social impact. There are a number of projects in Sofia that support educational and entrepreneurial initiatives. Overall, the innovation eco-system requires the adherence to and the application of **all five RRI principles** to a certain degree.
Relevance of AIRR dimensions to the stakeholder	The **AIRR dimensions** are important for Rinker Centre because successful business development is related to the adoption and application of these dimensions. Since Rinker trains entrepreneurs on how to transform their ideas into operational businesses, the AIRR principles are discussed in the context of the development of viable business strategies.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The activities of Rinker Centre are connected to **youth employment and entrepreneurship** as well as **digital transition and new skills**. As the team of Rinker Centre has the expertise in these areas, it might contribute to the development of the transformative outlook for Sofia by providing input, based on own experience.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As already presented above, the primary activity of Rinker Centre is to train young entrepreneurs. Therefore, if the Centre engages in adopting the RRI principles and AIRR dimensions, it will thus promote them among the future Bulgarian entrepreneurs.
Website of the organisation	https://rinkercenter.org/en/

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Name of stakeholder organisation (and abbreviation): **Bulgarian School of Politics** (BSoP)
Profile of the organisation	Bulgarian School of Politics (BSoP) is an NGO established in 2001 as part of the Continuing Education Department of New Bulgarian University (NBU). It organises leadership training programmes for Bulgarian political and civic leaders. The training programme and certificates are accredited by NBU and credits count towards the MA programme in Political Management. BSoP is the co-founder of the network of schools of politics, managed by the Council of Europe. BSoP is also the co-founder of schools of politics in Northern Africa, in Morocco and Tunisia. It further runs political leadership programmes for the Western Balkan countries.

	The School considers the level of citizen participation in policy-making as an indicator of the standard of democracy. Its mission is to support the creation of a community of civic and political leaders, who have an active role in political and public life on national, European and international level and are devoted to democratic values such as pluralism, tolerance, respect and democratic debate. Programmes adhere to and promote key democratic principles – tolerance, respect, democratic debate. Training methodologies are based on a framework developed by the Council of Europe.
Relevance of Responsible Research and Innovation to the stakeholder	BSoP serves as a bridge between policy-makers, civic leaders/civil society and local communities. The School works to raise civic control in public policy development, to enhance the supremacy of law, to protect the freedom of speech, to support morality in politics and in the NGO sector, to introduce accountability and transparency in governance. Thus, RRI is highly relevant to the work and mission of BSoP.
Relevance of RRI keys to the stakeholder	BSoP has an **ethics** charter, which is binding both for the staff and the participants in the leadership training programmes, organised by the School. In case of breach of the charter, trainees could be excluded from the programme. Also, the programmes have training modules on issues like anti-discrimination, hate speech, children's rights. Responsible behaviour usually depends on personal moral values, therefore personal ethics is important for all actors in the R&I field. A large number of the Schools' alumni work in public office and their behaviour is publicly observed.

Although all RRI keys are considered important to BSoP, the most important one is **public participation**. According to the information on the School's website, citizen participation on all levels of governance – from policy development to decision-making – is a guarantee for transparent and good governance. Because of that, the focus of the School's activities is on studying the European experience in the area of citizen engagement in decision-making, aiming to identify good practices and models for policy development. BSoP engages the public in public discussions, public fora, and advocacy to local government for carrying out public consultations.

Open access to scientific results is also considered very important. All project-based reports, achievements and data are accessible by the general public.

The principle of **gender equality** is pursued in all areas of the School's work. |
| Relevance of AIRR dimensions to the stakeholder | **Anticipation** is important in BSoP's work in order to have sustainable results with respect to political and civic leadership training. To this end, the School has strategic planning for five years ahead, including |

	financial planning. Depending on specific circumstances, BSoP also responds to ad-hoc issues, e.g. organising debates on the Istanbul Convention.
	Inclusiveness is another important dimension in the work of the School. A variety of stakeholders are involved in the work process, ranging from members of parliament to citizens. BSoP also implements different initiatives such as advocacy campaigns for vulnerable groups and provides feedback from citizens to policy-makers. For example, in 2020, together with UNHCR-Bulgaria[20], BSoP created a Refugee Advisory Board, a consultative body comprised of refugees living in Bulgaria, so that they can be included in policy and decision-making initiatives regarding integration.
	Regarding **self-assessment and self-analysis**, BSoP has an annual evaluation at the end of each year, assessing the work of the organisation. In addition, ad-hoc assessments are also carried out.
	Responsiveness and adaptability are also implemented as BSoP is very flexible and adapts easily to the environment as well as to the changing needs of the target groups. For example, the leadership training programme is updated each year in response to the arising issues or the needs of the target groups. Therefore, flexibility is applied both at operational level and also at the level of training/programming design.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	Since BSoP trains national political and civic leaders, its importance within the territory is high as the values it promotes are observed by the alumni, most of whom pursue careers in public office.
	In relation to the policy areas, the ones that are most relevant for BSoP are **youth employment and entrepreneurship**, and **digital transition and new skills.** The drivers/needs for higher rates of youth employment and entrepreneurship in Sofia include:
	■ School education and family background, however, a new societal approach is needed for large-scale changes to take place.
	■ Political parties and their policies, where there's a need to develop programmes to encourage young people to be more entrepreneurial.
	■ More channels for information as well as programmes for early career advice are necessary.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
	■ Stakeholders with high levels of interest in relation to RRI in practice

How can stakeholder contribute to the adoption of RRI principles and AIRR dimensions within territorial governance?	There are two main ways: ■ since the School targets young political and civic leaders, the RRI principles and AIRR dimensions can be transferred directly into policy and decision-making through the trained young leaders; ■ as the School operates under the umbrella of the New Bulgarian University, these principles will be transferred to a certain extent to the university activities as well.
Website of the organisation	https://www.schoolofpolitics.org/eng/

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Name of stakeholder organisation (and abbreviation): **Foundation "The Duke of Edinburgh's International Award – Bulgaria"**	
Profile of the organisation	The Duke of Edinburgh's International Award is a global programme for non-formal education and training that challenges young people to be bold, celebrate their achievements and change the world around them. Through developing skills, cultivating a sense of adventure and volunteering, the Award helps young people to find their purpose, passion and place in the world. The Award is active in more than 130 countries and territories and although its framework does not change, irrespective of the state in which it operates, no two Awards are the same, because each young person designs and creates their own programme, unique to them. The Award is available to all young people between 14 and 24 years of age, regardless of their background, culture, physical ability or interests. Foundation "The Duke of Edinburgh's International Award – Bulgaria" was established in early 2014. Currently, the programme works with more than 60 schools and organisations in 27 cities in Bulgaria and with over 500 young people a year.
Relevance of Responsible Research and Innovation to the stakeholder	Although not directly stated, an inquiry into the philosophy of the Foundation evinces that its objectives are based on some of the RRI principles, therefore, a conclusion that RRI is relevant to its activities, can be made. The Foundation perceives responsibility as an obligation to create proper conditions for developing and nourishing the potential of young people.
Relevance of RRI keys to the stakeholder	**Public engagement** is crucial for creating proper conditions for the development of policies. Policy elaboration is a process in which numerous stakeholders, such as young people, schools, businesses, should be involved in order to produce doable policies. **Science education** is enhanced as the Ministry of Education and Science has been paying increased attention to STEM in recent years and as a result, programmes have been reformed and improved. Different civil society organisations are also very active in this field.

	The Duke of Edinburgh's International Award subscribes to its code of **ethics** for working with young people. All schools and other organisations, which cooperate with the Award need to have and adhere to their internal rules and procedures for working with young people.
Relevance of AIRR dimensions to the stakeholder	**Anticipation** is very important as youth employment and entrepreneurship are not problems that can be solved once and for all, because different generations of young people face different challenges. **Inclusiveness** is also very important, because all relevant stakeholders need to be involved in the policy design in order to develop feasible policies. **Self-assessment** is ensured as the Foundation Duke of Edinburgh's International Award – Bulgaria makes an annual action plan, based on a three-year strategy. The plan is assessed twice a year in order to evaluate which activities are successful and should be given more attention and which need to be revised or cancelled as non-productive. The dimension of **responsiveness/adaptability** has been a crucial characteristic of the Duke of Edinburgh's International Award. The Foundation works globally, and it would be very difficult to make changes that would be appropriate for all of the involved countries. Nevertheless, due to good management, many internal processes and working methods were successfully changed in 2020.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The activities of the Foundation are related to **youth employment and entrepreneurship** as the primary objective of the programme is to help young people, aged 14-24, find their purpose and place in the world by developing their skills and cultivating their spirit for adventure and sense of volunteering in their community. Therefore, the employees of the Foundation are very well acquainted with the needs of youth in Bulgaria, as well as with the obstacles before this policy area.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The Foundation could engage in promoting the RRI and AIRR principles, most of which are the pillars behind its philosophy.
Website of the organisation	https://intaward-bg.org/

Name of stakeholder organisation (and abbreviation): **Maria's World Foundation**	
Profile of the organisation	Maria's World Foundation was established in February 2012 in Sofia, as a foundation acting for the public benefit. Its aim is to improve the quality of life of people with intellectual disabilities, including the life of their families, and help them achieve their full potential as individuals. The Foundation's objectives are focused on providing support to people with intellectual disabilities and their families by: ■ Protecting their human rights. ■ Facilitating their social integration. ■ Overcoming discrimination and their social isolation. ■ Assisting them to realise their full potential as individuals by providing them access to high-quality services, developmental opportunities and possibilities for finding employment suited to their needs.
Relevance of Responsible Research and Innovation to the stakeholder	RRI could be a useful approach and help to establish an innovative approach in the provision of social services to people with intellectual disabilities and their families.
Relevance of RRI keys to the stakeholder	Science in service of society can be achieved only through **open access** to resources, awareness raising, training and capacity-building. **Public engagement** is very important for the work of Maria's World. **Gender equality** is achieved into all the activities of the Foundation. When it comes to the Foundation's team, the work is overly feminised, which coincides with the trend in the whole social services sector in the country.
Relevance of AIRR dimensions to the stakeholder	**Reflexivity (**self-analysis and self-assessment), is considered key as the management of the Foundation applies a quality-assessment cycle, including analysis and assessment of all activities within one calendar year using KPIs so that areas for improvement can be identified. There is an integrated system for evaluation of the Foundation's activities, which is based on consultation with their users. The Foundation publishes an annual report. There is an annual quality review of social services providers, which is focused on elaboration and submission of formal reports.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The two policy areas that are related to the Foundation's activities are innovation support and youth employment and entrepreneurship. When deliberating about youth policies and employment, it has to be noted that people with disabilities have huge potential, which is not currently used. As the Foundation's team has expertise in these two policy foci from the viewpoint of working with people with disabilities, it is able to

	contribute to policy developments in these two areas that are including the special needs of this particular group of people.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The Foundation collaborates with partners in social innovation and social entrepreneurship networks. It has also participated in a pilot group for developing a programme for social innovations at Sofia Municipality. The Foundation participates in networks of NGOs, which are providers of social services to vulnerable groups. Therefore, it can contribute by promoting the RRI and AIRR dimensions among these stakeholders.
Website of the organisation	https://www.mariasworld.org/en/

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Name of stakeholder organisation (and abbreviation): **Reach for Change Bulgaria**	
Profile of the organisation	Reach for Change is an international non-profit organisation, founded in Sweden in 2010. It operates in 18 countries across three continents. In Bulgaria, Reach for Change Foundation has a mission to unlock the power of innovation and entrepreneurship in order to create a better world for children. It finds and helps social entrepreneurs with high potential to develop effective innovative solutions to pressing issues for children. Rather than providing only grants, Reach for Change supports these exceptional social entrepreneurs by helping them build up their organisational capacity, giving them start-up capital as well as providing them with access to a community of partners and other social entrepreneurs.
Relevance of Responsible Research and Innovation to the stakeholder	**Responsible innovations** can be broadly understood to include forms of responsible support and responsible behaviour, where all stakeholders have specific responsibilities and duties. The concept of **inclusiveness** is the most appropriate when speaking about **social and inclusive innovation.** For Reach for Change responsible innovation means to include all groups that have the expertise on a given topic in the design of innovations.
Relevance of RRI keys to the stakeholder	Overall, all five keys are relevant, but they seem to have a different scope and application. Regarding the field of social innovation, **public engagement**, **inclusiveness** and **research ethics** are of highest importance, followed by **science education** and **gender equality**. Reach for Change has its own ethics charter. Regarding gender equality, the Foundation's statistics show that 60-70% of applications

	(received each year) are from women. The typical profile of a social innovator in Bulgaria is a woman, between 30 and 40, university graduate.
Relevance of AIRR dimensions to the stakeholder	Reach for Change has a competitive selection process, funding approximately 5% of all candidates. One of the **inclusiveness** practices is related to the introduction of children's jury, because children and youth need to have a voice in such initiatives/projects. The methodology was developed together with the National Network of Children in order to ensure it is child-friendly.

Self-reflection/self-assessment is a process of ongoing adaptation, which is crucial for small organisations. Reflexivity and assessment at Reach for Change take place on an ongoing basis.

Reach for Change has demonstrated **responsiveness** to the needs of the pandemic situation by creating a special edition of the annual programme for social innovators with adapting the rules and the selection process, which typically operates as an accelerator learning programme, lasting seven months. During the pandemic, the process was shortened to one month, the organisations were funded and the process of mentoring was pushed back so that organisations could start their projects. |
| Importance / role of the stakeholder within the territory in the context of the chosen policy focus | The most relevant policy area for Reach for Change is **youth employment and entrepreneurship. Digital transition and new skills** as well as **support of innovations** (social innovations in particular) are also relevant.

The activities of Reach for Change are very popular in the country, because they receive intensive media coverage by one of the major TV channels in Bulgaria, which is a media partner of the initiative. Therefore, in addition to supporting innovative social entrepreneurs, the organisation promotes social entrepreneurship among the wider public. Last, but not least, its experts are very well aware of the challenges in the field of youth employment and entrepreneurship. |
| Relevance of the stakeholder to the objectives of RRI-LEADERS. | ■ Stakeholder with high levels of interest in relation to RRI in practice
■ Stakeholders with high levels of influence on RRI in practice |
| How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance? | Reach for Change supports social entrepreneurs during the development of their ideas into operational and successful social initiatives. In this role, the Foundation is able to contribute by promoting the RRI and AIRR principles into the social innovation eco-system. |
| Website of the organisation | https://bulgaria.reachforchange.org/bg/ |

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Name of stakeholder organisation (and abbreviation): **SOfiaGREEN project**	
Profile of the organisation	The project "SOfiaGREEN" was initiated by the Mayor of Sofia and Sofia Development Association in 2016 with the aim to coordinate and streamline all of Sofia Municipality's policies, related to sustainable development. The objective was to: i) improve the overall quality of life of citizens and ii) put forward a successful bid for Sofia in the European Green Capital[21] contest, organised by the European Commission.
	SOfiaGREEN's team is gathering information and conducting analysis across a variety of sustainability indicators in order to propose short-term and long-term measures for improving the city's performance and the quality of life. Parallel to this activity, a number of pilot projects, related to air quality, mobility and waste management, are being executed.
	The objectives of the project include:
	■ Developing Sofia's candidacy for the European Green Capital competition.
	■ Promoting sustainable and green policies within Sofia Municipality.
	■ Encouraging stakeholders to come together and engage in elaboration of solutions.
	■ Improving the communication between the municipality and other stakeholders for green and sustainable development of the city.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI framework is relevant to the activities of SOfiaGREEN project. The team of SOfiaGREEN is working on creating a common database where open data will be freely available to the wider public. This initiative is still ongoing, but the data available in the database will be collected and stored in formats that will be applicable to the work of researchers, analysts and businesses.
	Data is also collected and compared as a result of the elaboration of the application of Sofia for the green capital competition. The next step is to make this data more widely available. This evinces that the RRI framework, especially the open access key, is of high relevance to the activities of the SOfiaGREEN project.
Relevance of RRI keys to the stakeholder	**Public engagement** is implemented as all the activities of SOfiaGREEN are oriented towards user-centred results. Their main purpose is to inform and engage the citizens in activities that will improve the quality of life in Sofia and make the city greener and more sustainable.
	Open access is widely supported. All the information about the activities and results is available on the project's website.

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[21] *The European Green Capital Award (EGCA) is an initiative of the European Commission, aiming to reward cities that make efforts to improve the urban environment by creating healthier and sustainable living areas. Over 75% of the European population lives in cities, which poses great challenged for city authorities. Past winners of the EGCA include Stockholm, Hamburg, Copenhagen and Ljubljana.*

Relevance of AIRR dimensions to the stakeholder	**Anticipation, inclusiveness and responsiveness** are important for the activities of the SOfiaGREEN project. Inclusion can be achieved in different ways such as discussing and identifying problems together with stakeholders. Public participation should be ensured in policy-making, policy implementation and in elaborating solutions. Inclusion is a continuing process in the whole policy cycle – from generation of ideas and development of policies to their implementation.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	Sustainable urban development is the main area the SOfiaGREEN project is focused on, but support for innovation, digital transformation and youth employment and entrepreneurship through start-up projects are also relevant foci for SOfiaGREEN. Since the project was initiated by the Mayor's office and is being implemented by the municipality's resource centre for research, analysis and innovations, namely Sofia Development Association, it has a primary importance within the territory in the context of the selected policy foci within the RRI-LEADERS project.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice ■ Stakeholders with high levels of power
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As the project was initiated by the Mayor of Sofia and is being implemented by Sofia Development Association, which encourages the dialogue among civil society, businesses, Sofia Municipality and academic institutions, the team of SOfiaGREEN has the opportunity to promote the adoption of RRI principles and AIRR dimensions in their work.
Website of the organisation	https://www.sofia-da.eu/en/current/project-%E2%80%9Csofiagreen%E2%80%9D.html

■ **Business**

Name of stakeholder organisation (and abbreviation): **Health and Life Science Cluster Bulgaria** (HLSCB)
Profile of the organisation

Profile of the organisation	The Health & Life Science Cluster Bulgaria is a non-profit organisation which unites innovative companies operating in the field of life sciences and health, such as businesses in drug discovery, genetic research, 3D human tissue printing, software solutions for medical and outpatient care, drug manufacturing, nutrition supplements, green technologies, bio-based technology, food-tech, agri-tech, etc. The cluster facilitates relationships and promotes cross-disciplinary and international partnerships in order to strengthen innovation activities within life sciences. The Cluster:

	■ Catalyses innovation by facilitating cooperation between public and private stakeholders within life sciences. ■ Brings smaller companies into the spotlight and inspires cross disciplinary collaborations and public-private synergy. ■ Supports the development of professional competences in innovation and foresight. The Cluster participates in the Management Boards of the Bulgarian Bioscientific Society and the Bulgarian Employers' Association for Innovation and Technology (www.brait.bg).
Relevance of Responsible Research and Innovation to the stakeholder	The RRI framework could provide an adequate response to several challenges the HLSCB cluster is facing. The RRI concept could be further expanded to include the local context for supporting entrepreneurship, development of spin-offs, and intellectual property protection.
Relevance of RRI keys to the stakeholder	The mission of the HLSCB Cluster is to improve quality in health treatment and care by enhancing the members' capabilities to develop and put on the market world-class health care solutions. The Cluster facilitates confidence-building in interpersonal relations to fulfil the needs of its stakeholders for strengthening innovation through cross disciplinary and international partnerships. HLSCB also strives to bring smaller companies, public/private synergy and internationalisation into the spotlight. Therefore, **stakeholder and public engagement** is a highly important aspect of its work. Support for the development of professional competences of the Cluster members is another objective of HLSCB. In this way, the Cluster contributes to **science education** in the area of life and health sciences. **Collection and access to data** is crucial for successful development of innovations in the health care sector.
Relevance of AIRR dimensions to the stakeholder	All of the **AIRR dimensions** are important for the governance of research and science in digital transition, biotech and healthcare, but other aspects are also important, namely: ■ Awareness of existing problems and issues. ■ Scalability, long-term strategic planning, predictability (as part of anticipatory governance). ■ Targeted investments within three- to five-year time-frames.
Importance of the stakeholder within the territory in the context of chosen policy focus	As the Cluster is involved with innovations in health, biotech and artificial intelligence, its activities are related to the policy focus of **digital transition and skills**, **innovation support** and **youth employment and entrepreneurship**. Apart from its members, HLSCB works with Sofia Municipality and Sofia Tech Park.
Relevance of the stakeholder to objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice in companies in health and life sciences

How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The cluster provides a meeting point of businesses, working in the field of health and life sciences. Therefore, it has the ability to promote the adoption of the RRI principles and AIRR dimensions in their company practices.
Website of the organisation	https://www.biocluster.bg

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Name of stakeholder organisation (and abbreviation): **Electric Vehicles Industrial Cluster** (EVIC)	
Profile of the organisation	The Electric Vehicles Industrial Cluster (EVIC) was registered as a cluster organisation in November 2009. It was established by seven Bulgarian companies as the first industrial association for electro mobility in the country. EVIC supports its members in their industrial, technological, business and strategic development, to propose legislative changes, and to provide higher and vocational education and training. EVIC is a member of the Bulgarian Industrial Association. The **objectives** of EVIC include: ■ To create and develop the electro-mobility sector in Bulgaria. ■ To support new industries in order to raise the competitiveness of European and world markets in the sector of electrical mobility. ■ To unite the efforts of its members to set up National Charging Infrastructure – BULCHARGE. ■ To cooperate with public bodies to introduce rules, norms and standards in the sector. ■ To contribute to setting up sustainable educational models. ■ To integrate renewable, hydrogen and energy-saving sources. ■ To ensure the sustainable competitiveness of EVIC's members. ■ To introduce electric buses as mass urban transport. ■ To implement industrial investment projects for technological renewal and innovations, aiming to reduce the energy intensity of transport schemes. ■ To develop investment projects, aiming to increase energy efficiency and to introduce the production of alternative energy. ■ To support the protection of the environment according to national and regional priorities and EU requirements.
Relevance of Responsible Research and Innovation to the stakeholder	Although EVIC does not perform R&D by itself, the objectives of the organisation are closely related to research and innovation in the field of electro mobility, therefore, the RRI framework is relevant to its activities as well as the activities of its members. Responsibility for EVIC means following strict standards for quality, technical specifications, requirements for the new type of mobility in a fair business environment.

	EVIC has internal regulations that allow cluster members to cooperate effectively. Each year EVIC gives an award for high achievements.
Relevance of RRI keys to the stakeholder	All five RRI keys are important to EVIC. **Stakeholder engagement** is essential, because one of EVIC's priorities is to connect the main actors, namely business, academia and public administration, and to initiate a dialogue among them in order to develop a common vision and priorities, as well as to co-design policies in the field of electro mobility. **Open access** is necessary for managing the e-mobility infrastructure and networks, because these electronic systems require open source software and open data in order to be able to link e-mobility with the other transport modes. **Ethics and gender equality** are important when deliberating issues in the field of environment/ecology, which is closely linked to the electrical mobility sector. **Science education** is key for overall business progress across all sectors, including the electrical mobility area as well.
Relevance of AIRR dimensions to the stakeholder	Since electrical mobility is a new sector, **anticipation, inclusiveness, reflexivity and responsiveness** are all important for its proper development and sustainability over time. A long-term vision on how to innovate and how to use innovations from other sectors is needed. Different decision-making methods are applied by businesses and public authorities and collaboration among them is of crucial importance. Organisations like EVIC need to be consulted by the municipal authorities when sector-specific policies are being developed.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	Since e-mobility is directly linked to **sustainable urban development**, EVIC is an important stakeholder in this context. In the area of **youth employment and entrepreneurship**, the cluster cooperates with academia in order to develop educational programmes that will lead to skilled workforce. In cooperation with the Ministry of Education and Science, EVIC is implementing vocational training programmes in high schools, aiming at preparing young people for the new jobs needed in the electromobility sector. EVIC also promotes and **supports the innovation** activities of its members and works with technology developers in order to build a system of charging stations. To create **digital transformation** and acquisition of new digital skills that are required for each segment of the e-mobility system, elements of the system, such as (smart grids, e-vehicles, charging systems, should be linked in order to encourage investments.

Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	By adapting RRI principles and AIRR dimensions, EVIC can contribute to development of Sofia municipality in the following ways: ■ the cluster members are Bulgarian companies, developing strategic innovations, and as such their adherence to the RRI principles is of primary importance for the whole innovation eco-system and the society and will lead to a more transparent, inclusive and ethical R&D process; ■ representatives of the scientific and educational community, including the Bulgarian Academy of Sciences, participate in EVIC and thus, the cluster could promote RRI into this community as well; ■ EVIC cooperates with public authorities in order to establish rules, norms and standards in the electric vehicles industry, which is an opportunity to promote the acceptance of the RRI principles and develop policies that are in line with the RRI principles and AIRR dimensions.
Website of the organisation	http://www.emic-bg.org/?lang_id=2

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Name of stakeholder organisation (and abbreviation): **Innovation Capital**	
Profile of the organisation	Innovation Capital is a venture capital fund, established to provide access to equity and quasi-equity funding to start-ups in Bulgaria. The organisation focuses on key high-priority sectors in the local economy with high potential for disruptive and scalable innovation. Innovation Capital supports the transformation of these sectors through professional innovation management in high-potential start-up and scale-up businesses. The end goal is to grow these businesses to scale and to establish integration with renowned international companies and innovation leaders.
Relevance of Responsible Research and Innovation to the stakeholder	Innovation Capital supports innovative start-ups, where the application of the RRI framework is perceived of primary importance, therefore, in this specific context, RRI is relevant to Innovation Capital as well.
Relevance of RRI keys to the stakeholder	**Ethical** standards are applied rigorously in the selection of projects, supported by Innovation Capital. No support is provided to initiatives that could have a detrimental effect on society, environment, people or cause harm in any other way.

	All supported projects have a pronounced **engagement aspect**. A wide range of stakeholders are directly involved either as members of the project evaluation jury, as participants, or they provide feedback. The **educational aspect** is also present, because work on a project always involves acquisition of new knowledge. **Gender-based** discrimination is not possible, and whether a project is managed by a woman or a man is not important. Overall, all RRI principles are present to a great extent, either formally or informally, in the work processes and practices at Innovation Capital.
Relevance of AIRR dimensions to the stakeholder	**Anticipation** is obligatory for research and innovation – it is essential to be able to look forward and anticipate possible pathways for future developments. When Innovation Capital assesses a project, this is not done only in the Bulgarian context, but is compared to the global situation. This is important to establish the gap (or delay) between Bulgaria and other countries and to understand the global development trends. **Inclusiveness** is also an important aspect. The more open and inclusive the processes are, the better the chance to deliver applicable and meaningful policies that can produce a real impact. Innovation Capital team has regular presentations and trainings in different cities across Bulgaria, meeting the local eco-system stakeholders, and establishing contacts. **Reflection** involves using different KPIs and is closely related to principal managerial skills. Innovation Capital always brings the attention of their beneficiaries to the importance of self-assessment and self-reflection. **Responsiveness/adaptability** are important – policies should be discussed and coordinated with beneficiaries they are targeting.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The most relevant to the activities of Innovation Capital policy areas are **digital transition**, **support to innovation** and **youth employment and entrepreneurship**. The RRI keys that are important for these policy fields are open access and research ethics, followed by science education.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Innovation Capital's role in facilitating the adoption of the RRI principles and AIRR dimensions is related to the fact that it supports innovative Bulgarian start-up companies in key high-priority sectors of the economy with high potential for disruptive and scalable innovation. Therefore, promoting these principles among innovative start-ups will

	lead to their endorsement by other actors in the business and innovation eco-system in the country.
Website of the organisation	https://www.innovationcapital.bg

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Name of stakeholder organisation (and abbreviation): **Virtech Ltd**.	
Profile of the organisation	Virtech is a research and development company specialising in applications of the advanced information and communication technologies. The company applies the knowledge and experience of international research and development into a wide range of services, consultancy, training and developments. Its competences are smart sensors, cloud computing and Internet of Things (IoT) services; smartphone and tablet applications; serious gaming and interactive multimedia design and development, storytelling tools; digital repositories implementation and enrichment with semantic-based innovative services; data mining and business intelligence; e-learning and competence development methodology, tools and services.
Relevance of Responsible Research and Innovation to the stakeholder	The RRI framework is an important driver of progress and contributes to adapting to the rapid technological development. RRI can help companies to be proactive and stay ahead of the innovation process, improving their competitiveness.
Relevance of RRI keys to the stakeholder	1. Wide **inclusion of all stakeholders** is important in the process of software development for Virtech. The agile model of product development requires that end users and stakeholders are involved in co-creation and co-design from the get-go. 2. **Research ethics** is considered critical especially when third parties are involved in data sharing, which is also a question of data security and responsibility. 3. **Open access** is vital for Virtech, emphasising the need for administrations to provide open access to data is key to economic development and experimentation.
Relevance of AIRR dimensions to the stakeholder	All **AIRR dimensions** are important and there is a variety of instruments to implement them. What is needed in the Bulgarian context is the aspiration to align with and to follow developments at EU level.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	For Virtech, the most relevant policy area is **digital transformation**, because the company is a leading partner in VirtSOI LL – the Virtual Services and Open Innovation Living Lab. The Lab was established in Sofia in 2008 in partnership with the Centre of Information Society Technologies at Sofia University, the Institute of Technology and Development and eight more professional associations and NGOs in

	the ICT field. VirtSOI LL has been a member of the European Network of Living Labs since 2008. According to the website of the living lab [VirtSOI Living Lab: Virtual Services and Open Innovation (Sofia) (virtech-bg.com)](), VirtSOI LL aims to integrate a broad vision for development and implementation of virtual services in the following areas: e-Learning, e-Work, e-Government, e-Health, e-Business, e-Content, e-Inclusion, Mobile Technology Applications, Web 2.0 and Virtual Worlds, Open Innovation, Interoperability and Security, Knowledge Management; ICT for Sustainable Development, etc. The objective of VirtSOI LL is to become a marketplace platform for both providers and seekers of regional innovation/expertise. After maturing enough, its aim is to become an incubator for service-oriented living labs, targeting various public and industrial sectors. In addition, since Virtech is an R&D company, which specialises in applications of the advanced ICT, it contributes to the overall digital transformation and youth employment.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Virtech has a large network of partners and could promote the RRI-AIRR framework to them, thus enhancing their innovation activities adhering to the principles of stakeholder engagement, research ethics and open access.
Website of the organisation	http://www.virtech-bg.com/

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Name of stakeholder organisation (and abbreviation): **Microsoft Bulgaria**	
Profile of the organisation	Microsoft Bulgaria, established in 1999, is the Bulgarian branch of the global IT giant. The company develops, manufactures, licenses and supports a variety of computing products used by consumers and businesses. Microsoft Bulgaria is the biggest investor in Bulgarian education from the private sector.
Relevance of Responsible Research and Innovation to the stakeholder	Microsoft has a specialised unit for research, development and innovation activities. In recent years, the company has focused on educational technologies, targeting various learning disabilities. For example, lately the company has been working on immersive technologies in order to support learners with educational deficits and special needs such as dyslexia, kids with cerebral palsy, etc. Microsoft is proactive in this respect, and it is a market leader in such technologies, aiming to respond to public needs immediately.

	In 2020, due to the COVID-19 situation, Microsoft has focused on online education and especially the Teams platform, which was primarily used as a business platform, but was rapidly transformed to aid online schooling and teachers.
	Furthermore, the company is aware that it cannot succeed without collaborating with universities and businesses. Regarding responsibility, the company's compliance policies are stringent. Microsoft has always been an extremely responsible and reliable partner.
Relevance of RRI keys to the stakeholder	**Public engagement** has always been important for Microsoft. The company is working with many organisations, constantly consulting with various stakeholders on how to design and improve software. In addition to developing software for teachers and students, the company is also leading global initiatives for digital skills for parents.
	Open access to data is also very important.
	Gender equality is important for the company on all levels.
	The view of Microsoft is that **making science accessible** by making scientific language understandable to the general public is important in order to improve the overall public literacy about technologies and digital tools.
	The most important **ethical** concerns at Microsoft are related to making all research and innovation results public. Policy-makers need to have access to this information. Publicity, transparency, protection of personal data and security of information are key values to which the company adheres. Microsoft has a strategy for corporate social responsibility, Microsoft Citizenship, which includes objectives like becoming a carbon-free company, making responsible use of resources and sustainable development measures.
Relevance of AIRR dimensions to the stakeholder	All of the AIRR dimensions are important for Microsoft in order for the company to stay competitive on the global market. However, the focus is on **anticipation** (e.g. the company's innovation strategy) and **inclusiveness**, especially with regard to the corporate business strategies, which are developed with the involvement of external stakeholders. Microsoft usually engages public figures and organisations in designing programmes and documents such as the Global Training Partners Programme, where all international partners of the company are involved.
	In addition to external stakeholders, Microsoft also involves its employees in strategy development. The company is regularly asking staff members for feedback. Moreover, employees are engaged in the process of developing both strategies and products. This is executed through cycles of internal testing, evaluation and validation of products and processes.

Importance / role of the stakeholder within the territory in the context of the chosen policy focus	As an IT company, Microsoft is of huge relevance and is very interested in **digital transformation**. Furthermore, as it is involved in educational technologies, it has a well-formulated position on **educational policies**.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As Microsoft is one of the biggest companies in the IT sector, it can serve as a good practice example to other businesses, especially in the IT field. Although not formally adopted as part of the company's policy, the RRI principles play an important role in Microsoft, above all, open access and ethics. Microsoft's strategy for corporate social responsibility (Microsoft Citizenship) can be highlighted as an excellent example of adoption of RRI principles in the business sector.
Website of the organisation	https://www.microsoft.com/bg-bg

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Name of stakeholder organisation (and abbreviation): **Bulgarian Start-up Association** (BESCO)	
Profile of the organisation	The Bulgarian start-up association (BESCO) is a non-governmental organisation that acts as a bridge between start-ups, private and institutional investors, the government and other stakeholders. BESCO's mission is to upgrade existing Bulgarian legislation with contemporary market-based policies, focusing on innovation. BESCO's team believes that the Bulgarian economy should be shaped by activities, which are based on R&D, innovation and entrepreneurship. To achieve its vision, BESCO is involved in: ■ Developing and strengthening start-up incubation in Bulgaria. ■ Working with public institutions, making recommendations for policy developments, proposing legislative changes (e.g. a start-up visa for entrepreneurs from third countries, willing to start their innovative business in Bulgaria). ■ Creating a supportive environment and community of start-up businesses. ■ Offering multi-level support to the start-up community. Last, but not least, BESCO offers membership to Bulgarian companies from various economic fields, thus creating a network of proactive and successful businesses, which get the opportunity to network with each other, to support innovative and progressive legislation that aims to improve Bulgaria's economy as well as to get access to value-added services, such as lawyers, consultations with accountants with experience in working with start-up companies, media contacts,

	contacts with PR and marketing agencies, references to funds and angel investors, ad-hoc services and offers from partner organisations.
Relevance of Responsible Research and Innovation to the stakeholder	Although BESCO has no innovation activity by itself, the association is involved in different research projects. For example, recently BESCO conducted a research on entrepreneurship education in 15 Bulgarian universities. Furthermore, one of the major objectives of BESCO is to support innovative start-ups, which are engaged in R&D and innovation activities and it is in this regard that RRI is relevant to its activities.
Relevance of RRI keys to the stakeholder	**Public engagement** is very important to BESCO and because of that, its team constantly communicates with stakeholders (seeking feedback from partners, policy and decision makers, the National Assembly, the municipality, representatives of political parties and the industry sector, with regard to their policy and legislative initiatives. **Open access** is crucial – information is shared internally and externally with other interested parties. BESCO also encourages sharing among the organisation's members. There are no problems regarding **gender equality** in BESCO. **Science education** is important in the long-term. BESCO is focused on supporting science-based innovations. The *Start-up Bushido* is the **ethics code** of BESCO. **Ethics** is key to BESCO's success. The most important criterion for accepting new members is the ethical behaviour and responsibility of the company. BESCO requires companies to follow strict ethical principles in their work. If a company wants to become a member, it first has to confirm its adherence to the ethics code by signing it.
Relevance of AIRR dimensions to the stakeholder	**Inclusiveness and responsiveness** are very important aspects in BESCO's activities. Regarding **self-assessment/reflexivity,** it is performed during weekly office meetings. There is an Advisory Board meeting on a quarterly basis, where BESCO reports its achievements and gets feedback from the Board. Another important aspect is related to evaluating the future social impact of innovations. At organisational level, BESCO follows three basic criteria: 1. Identification of the needs of the start-up environment/system. 2. New trends in the field internationally. 3. Consultations with the organisation's members.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	BESCO is an important stakeholder in Sofia, because many of the successful businesses in the city are its members. Moreover, it supports innovative start-ups with potential to become successful businesses, dealing with innovations and R&D in various economic sectors. Also, it works with relevant public bodies/institutions and other actors in the innovation system. In its role as a bridge and a mediator between all

	these stakeholders, it has a central role in the eco-system. Being such an important player, BESCO is able to contribute to policy developments in the **innovation support** and the **digital transformation** policy areas, which are the two policy foci, relevant to its activities.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	BESCO acts as a bridge between start-ups, private and institutional investors, the government and other stakeholders in the innovation industry. It has the capacity to promote RRI and AIRR principles among all these actors, thus contributing to the spread of the RRI principles and AIRR dimensions within the whole innovation eco-system, including relevant state institutions.
Website of the organisation	https://besco.bg/

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Name of stakeholder organisation (and abbreviation): **Lime**	
Profile of the organisation	Lime is a company, based in San Francisco, USA, offering the shared use of light e-vehicles such as mopeds, scooters and bikes in various cities around the world, including Sofia.
	The innovation activities of the company are focused on the development of new products. Lime's innovation strategy is linked to its business plans as well as the development and marketing of new products.
	The research team of Lime is based in China.
	In April 2021, Lime was listed by the "TIME" Magazine as one of the 100 Most Influential Companies of the year.
Relevance of Responsible Research and Innovation to the stakeholder	Responsibility is defined as being aware of the latest trends and challenges in the urban policies and develop innovative products and services that can answer these challenges. Responsibility for Lime also means to lead information campaigns regarding safe use of their products as an answer to concerns in the society and municipal administration regarding the safety of e-scooters.
	Corporate-social responsibility of Lime is at the focus of the company's commitment and obligations towards the city of Sofia. For example, as part of the efforts to limit the spread of COVID-19, Lime temporarily suspended its scooter service.
Relevance of RRI keys to the stakeholder	Only one RRI key is fully relevant to Lime, namely **stakeholder engagement.** The city administration is Lime's most important

	stakeholder as the company's products are used in public spaces, and their safe usage is an important public concern. Lime involves a variety of other stakeholders to inform the public where and how to use the scooters safely and responsibly.
	The main **ethical issues** are related to the safe use of scooters and the protection of the environment, e.g., recycling of electrical batteries of scooters. Also, Lime has an internal code for employees about working with hazardous materials and substances.
Relevance of AIRR dimensions to the stakeholder	As a high-tech company, Lime considers **anticipation** to be an important dimension so that the company can develop new products that are in line with future trends/developments. For Lime, anticipation is related to urban development and societal needs, and it is crucial for the company in order to stay ahead of potential competition and continue being the leader in its market niche.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	The most relevant area for Lime is **sustainable urban development**. Lime's importance for Sofia is in its proactive market position, as the company is changing the overall environment and introducing new ways of thinking and doing things. For example, Lime was the first company that introduced the shared use of light e-vehicles to the Bulgarian market. Furthermore, its mission is to reduce car travel, thus improving the quality of life and ensuring the protection of the environment. Lime contributes directly to making Sofia a greener and cleaner city, which coincides with the goal for sustainable urban development.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As the company operates in more than 120 cities in about 30 countries, it has the capacity to promote the RRI and AIRR principles not only in Bulgaria, but worldwide. Locally, by being a proactive game changer, it is able to enhance the application of RRI and AIRR principles, thus influencing positively the whole innovation eco-system.
Website of the organisation	https://help.li.me/hc/bg

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Name of stakeholder organisation (and abbreviation): **Obecto Digital Cooperative**	
Profile of the organisation	Obecto is fast-growing and entrepreneurial software development digital cooperative based in Sofia. It was founded in 2008, based on the belief that software development should be more than a way of delivering features, but should bring valuable change to the world. Its team consists of world-class professionals in building software products for a large variety of start-ups and companies around the world. Obecto is driven by the passion to create amazing technology and solve complex problems. Obecto has a structure governed by transparency, in which decisions are taken with solid arguments and the voice of the team. Obecto is not only developing software, such as web, mobile, gaming, big data and machine learning software products, for their clients, start-up companies, but also acts as their strategic partner, investing in their success. By sharing the risks, Obecto creates a relationship where both parties are fully invested in the success of the venture. Obecto's team assists the start-ups in the development of their business idea, and then collaborates with them until the idea turns into a profitable activity.
Relevance of Responsible Research and Innovation to the stakeholder	Obecto carries out innovation activities – it has a unit responsible for innovations and a research team, which is focused on cutting-edge IT solutions and products. Obecto has clearly formulated innovation objectives, which the team aims to achieve. These objectives are also aligned with new developments in the field. Its experts are authors of scholarly publications. They cooperate with the Bulgarian Academy of Sciences (BAS) and its Summer Research School. Experts from Obecto are student mentors participating in international competitions. Therefore, RRI is very relevant in the context of Obecto's activities.
Relevance of RRI keys to the stakeholder	Overall, all RRI keys are relevant and followed by the company. The most important one is **science education**. Obecto and BAS are partners in the Summer Research School – a programme for school students. Many of the students are involved in the development of innovations in the company. Also, Obecto has signed a formal agreement with BAS for the development of a school science centre. No major **ethical challenges** have been identified at Obecto so far. The company strives to develop solutions/innovations in ways that reduce potential damage.
Relevance of AIRR dimensions to the stakeholder	**Inclusiveness** is practiced at Obecto by engaging its employees in developing innovation and research strategies. The mechanism of distributed knowledge is very important – the company follows this principle and knowledge is shared among team members.

	Communication between all units is crucial. Business goals are discussed, and decisions are taken with the participation of the whole team.
	As it relates to **assessing future social impact of innovations**, the philosophy of Obecto is decentralisation, and team member has personal responsibility.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus	**Youth employment and entrepreneurship**, **support for innovation**, and **digital transformation** are all policy foci that are relevant for Obecto's activities.
	Obecto's relevance stems from the fact that it mobilises young entrepreneurs who are very proactive and do not seek only profit but are committed to making a positive impact. Furthermore, the company treats its customers as partners and shares the risk of their venture. Obecto makes a profit only when the founders of the company they are working with makes a profit, which is a business model that has included not only market-based objectives, but a positive social element as well. Thus, Obecto contributes to the development of the entrepreneurship culture in Sofia by ensuring support to youth employment and entrepreneurship, innovation development and digital transformation.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	As Obecto is a software development company, involved in developing innovations, it is important to adhere to the RRI principles. Some of them, especially science education and inclusiveness, are prominent in Obecto's practices. To further enhance such practices, Obecto might institutionalise them by developing a formal strategy, including the RRI and AIRR aspects, which will potentially lead to their promotion within their partners.
Website of the organisation	http://www.obecto.com/

9.3 Mapped RRI stakeholders in the Municipality of Thalwil

- **Policy makers**

Name of stakeholder organisation (and abbreviation): **Federal Department of the Environment, Transport, Energy and Communications DETEC**	
Profile of the organisation	DETEC deals with infrastructure and environmental matters. Modern transport routes, communication networks, and the power grid all fall under its remit. However, DETEC also deals with issues relating to the environment and health and safety. DETEC's task is to ensure sustainable development and the provision of basic public services in the interests of society, the environment, and the economy. Located at the heart of Europe, Switzerland is dependent on modern transport infrastructure, efficient communications and electricity networks. The Swiss Federal Office of Energy (SFOE) is the office responsible for all questions relating to energy supply and energy use within the Federal Department of the Environment, Transport, Energy and Communication (DETEC) of Switzerland. The Energy Buildings Section of the Swiss Federal Office of Energy supports cantonal projects and municipalities.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant for DETEC because its basic principles include transparency in strategic and spatial planning and the possibility for citizens and experts to participate in a dialogue on energy measures. DETEC is a state department that is concretely involved in promoting activities in the municipalities, and in offerings advice. DETEC assumes that in the context of the energy transition, everyone has a responsibility, starting with the institutions and ending with the citizens.
Relevance of RRI keys to the stakeholder organisation	**Public engagement** is central to the ministry, the administration, and the energy transition. Currently, work is being done in the municipalities to involve multiple stakeholders in the administration and thus to anchor environmental policy issues more firmly. **Gender**: A lot of emphasis is being placed on gender balance in the administration, and the recruitment process is being changed to achieve this.
Relevance of AIRR dimensions to the stakeholder organisation	For an authority, the AIRR dimensions are a central anchor. DETEC also develops future models at the political level and tries to bring them to the communities for application. This process is fundamentally critical to finding solutions for the energy transition. Nevertheless, the agency evaluates and develops activities and policy processes in a standardised manner.

Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	DETEC is responsible at the federal level for providing the new CO2 law and at the government level for promoting the corresponding activities to put the law into practice. DETEC also provides roadshows and specific support in the field of energy transition and could support Thalwil with specific funding.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	On a macro level, the authority could indirectly support the AIRR dimensions in a municipality like Thalwil by providing laws and guidelines that the municipalities have to comply with. However, it also creates a strong future orientation of climate policy in the municipalities through financial incentives.
Website of the organisation	https://www.uvek.admin.ch/uvek/en/home.html

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Name of stakeholder organisation (and abbreviation): **Green Party and Oekopolis**	
Profile of the organisation	Association that deals with sustainability processes. Founded 20 years ago. At that time, the city government established a sustainability steering group, which is still influenced by Oekopolis. Oekopolis is an important regional association that bundles civic engagement in the field of environmental policy and plans and develops numerous activities in Thalwil in the field of energy transition.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to the respondent's involvement in the association (Oekopolis). The task of the association is also to create transparency about the activities in the Zimmerberg region (around Thalwil) about sustainability and energy transition projects and to mediate between local companies and citizens' initiatives.
Relevance of RRI keys to the stakeholder organisation	Although Oekopolis is not familiar with the RRI framework, the principles are of great importance for the ecological association in Thalwil. From the information provided Oekopolis, **ethics** in the moral sense of sustainability is the overarching goal of the association's activities. The association is active in promoting **public engagement** and regularly organises activities in different areas of the community to strengthen the aspect of sustainability among citizens. The association tries to have women on the board of directors, thus promoting **gender equality**. Gender must be considered as an ethical goal, according to the interviewee.

	Science education plays an important role as Oekopolis works against so-called "fake news" and is focused on educating citizens about their sustainable actions. The association tries to argue logically and factually. The association is more technically and scientifically oriented. There is a newsletter twice a year with different sustainability topics.
Relevance of AIRR dimensions to the stakeholder organisation	Oekopolis considers AIRR dimensions, especially anticipation, as key to find long-term energy solutions for the community, especially through future scenarios in different areas such as housing or mobility. These models are necessary to integrate social aspects in the innovation process to make them feasible in the community. In particular, the association aims to increase the activation of people who are outside the association. Reflection can help to reflect on which people are still excluded from innovation processes in the community. This promotes a learning process and thus the energy transition.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	The association is crucial for the RRI Leader project. In the community, the association acts as a thought leader for the energy transition through his many involvements.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Through its network, through its task in the community, the association can increasingly stimulate participatory and reflexive action and thus strongly influence the sustainability processes in the community and administration.
Website of the organisation	https://gruene-zh.ch/grüne-thalwil

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Name of stakeholder organisation (and abbreviation): **Christian Democratic Party CVP - Thalwil**	
Profile of the organisation	The Christian Democratic Party of Switzerland (CVP) is a political party in Switzerland. In its party programme, the CVP described its position as liberal-social, whereby it wanted to combine liberal principles and guarantee basic social rights in the context of the so-called social market economy. The CVP is seen as a representative for families and small and medium-sized enterprises. It is elected by about 6% of the population in the national elections but provides a vice-councillor and thus has great influence in the municipality.

Relevance of Responsible Research and Innovation to the stakeholder organisation	The CVP is active in local and city government. According to the CVP, the energy transition must be tackled at all levels. Not only from the top down, but also from the bottom up, e.g., through citizens' initiatives. The CVP sees itself as a driving force for the energy turnaround. In particular, the way to reach the Energy City label (see Best Practices) is closely linked and based on the principles of RRI.
Relevance of RRI keys to the stakeholder organisation	The party is strongly oriented toward certain RRI keys. In particular, the topic of citizen participation and communication is a central component of the party's political work. According to CVP, better evaluation strategies in the municipality are needed to ensure the quality of political projects and their implementation. Ethics and openness: The CVP emphasise that ethics and openness are important in political activity and that politicians must deal with the facts together with the population. In addition, the community is increasingly incorporating science education and perspective into its work through the work of sustainability commissions, especially on sustainability issues. Public engagement, participatory processes are very much motivated by the party. E.g., lakefront planning is a workshop with a very different political process. Here citizens were able to contribute their thoughts. Gender is a big issue for the party as it tries to include all people, regardless of gender, in the political process. The party sees itself as a driver of open access, especially when it comes to public data.
Relevance of AIRR dimensions to the stakeholder organisation	All AIRR aspects are considered important for CVP.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	CVP, as a political party with a focus on housing, can play a very important role in the energy transition issue because it can adopt and implement measures on open access and the promotion of alternative energy technologies.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with medium levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The involvement and shaping of the political process in Thalwil are an important task of the party. The CVP is an important stakeholder for the project that it has direct influence on the shaping of administration and politics. In particular, the topic of energy transition can be further anchored in the community by the party, in its various committees, and thus AIRR dimensions can be developed.
Website of the organisation	https://cvp-thalwil.ch

Name of stakeholder organisation (and abbreviation): **The liberal party Function Municipal President Party FDP Thalwil**	
Profile of the organisation	The party's core demands are more and better jobs, stronger national cohesion, secure social services, and a lean and citizen-friendly state. Their motto "The liberal original - since 1848" is intended to express that the FDP, together with its liberal predecessor movements, has helped shape Swiss political life since the founding of the federal state in1848. The FDP also wants to promote novel and highly cost-effective environmental technologies that reduce climate-damaging greenhouse gas emissions by technically removing carbon dioxide (CO_2) from the air. This can be achieved either with permanent elimination through negative emission technologies, e.g., CO_2 binding to rocks used as a raw material, or with periodic reuse with CO_2 recycling and chemical conversion into fuels, such as kerosene and methane gas, which thereby become CO_2-neutral.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to the CVP as a political party because it implements transparency, public engagement, ethics. The FDP is very successful in the community. Political parties need to develop the RRI principles if they want to be successful and lead the citizens well in a community. The interviewee also leads the sustainability group in the community, which has discovered anticipation, especially scenario testing, as a very important tool for the energy transition. With its contributions, the steering group is an important player for the energy transition in Thalwil.
Relevance of RRI keys to the stakeholder organisation	Although the interviewee is not familiar with the RRI concept, it is very important to his work in the community. **Public engagement** In addition to various activities in the community, the interviewee tries to unite companies, citizens and administration. Broad citizen engagement plays a major role in the party's goals and their implementation. The party must explain its activities and share them with citizens.
Relevance of AIRR dimensions to the stakeholder organisation	**Anticipation** is practiced by the community leadership in various areas, e.g., in the administration or in many commissions. In view of technological developments and decisions of the legislator at the cantonal level, it is very important to plan and to define the budget and the scope of the municipality. **Reflection,** the local government makes every four years a profilogramme of activities in the field of energy transition with 120 questions. All activities of the municipality are previously assessed from the point of view of sustainability and then evaluated so that the citizen can see what has been achieved.

Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transfer	The party is very important for the RRI Leader project and above all plays a central role for the commitment to energy transition in the municipality of Thalwil, a mediator between the wishes of the population, the economy, and the climate goals.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The party has a shaping power for all RRI keys within the territorial policy and can also initiate new activities guided by RRI-keys.
Website of the organisation	https://cvp-thalwil.ch

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Name of stakeholder organisation (and abbreviation): **Kanton Zürich the Construction Directorate. Office for Waste, Water, Energy and Air**	
Profile of the organisation	The Energy Department prepares all the decisions that are adopted by the Federal Council and then transfers them into practice. According to its own statements, the office is on the side of the legislator and responsible for energy improvements in various areas like buildings. The Department ensures the protection and sustainable use of natural resources in the Canton of Zurich. As a supervisory authority, it also ensures the supply of clean drinking water and electrical energy, the environmentally sound disposal of waste and wastewater, and protection against flooding.
Relevance of Responsible Research and Innovation to the stakeholder organisation	RRI is critical for the agency to chart a legal course based on AIRR dimensions such as anticipation, reflection, and adaptability, and then help implement it. According to the department, the main actor for the energy transition is the state, and the administration, which should make the most of the framework within the framework of state laws. The government must draw the framework for the industry and develop new technologies and future scenarios and involve from science. As further tasks are consulting - this is firstly the framework with the law as well as the enforcement, then the training of experts, the financial support the third level is the consulting of private individuals and of craftsmen (implementers).

Relevance of RRI keys to the stakeholder organisation	The RRI keys indirectly play a major role in the daily work of the office. For example, **public engagement** is important because life cycles (e.g., for heating systems) are particularly long in the building sector. Therefore, in the case of heating, it is critical to make the right investments now. The Department is trying to make municipalities aware of these issues and is offering direct incentives. Cost and benefit calculations must be publicly available, so open access is very important. According to the department, it is important that there is a wide range of investments in the field of energy production, home renovation to develop durable and resource-efficient systems. Therefore, prototypes need to be showcased and information needs to be available to stakeholders. **Open access:** to achieve these goals, funding incentives, and current data should be made transparent to both homeowners and tradespeople as it relates to. The department performs these tasks and is guided by the RRI keys.
Relevance of AIRR dimensions to the stakeholder organisation	The AIRR dimensions ´reflectivity´ and ´anticipation´ are seen as steps in the work to evaluate future perspectives. There are also specific evaluation tools that ensure a standardised reflection process on ongoing projects and thus contribute to the quality management of the agency.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	Society does not yet see the dimensions of climate change issue. If there are problems with heating, for example, people simply buy an existing system out of their comfort zone. The department offers incentives, financing, and consulting services for communities like Thalwil, where the so-called roadshows are also offered to inform investors and homeowners. Building Directorate Office for Waste, Water, Energy and Air support the development of sustainable buildings with low energy requirements and high value retention. To this end, they advise and inform the population with information events in the communities. With practical energy seminars, they ensure the transfer of knowledge to experts. They certify energy buildings in the canton and grant subsidies to promote energy-saving measures on buildings.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	A road show with heating experts is organised, and then roadshows are held in the communities and municipalities to present different options. Scientific education is considered a priority as the building technology is becoming more complex, and installers need to be well-trained. The department supports thorough research and educates itself in the industry. The department offers very concrete support and

	incentives for the municipality of Thalwil, but it can also call for participation, documentation and reflection.
Website of the organisation	https://www.zh.ch/content/dam/zhweb/bilder-dokumente/organisation/baudirektion

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Name of stakeholder organisation (and abbreviation): **Protestant Party Thalwil**	
Profile of the organisation	Protestant Party Thalwil is a political party in Thalwil that is committed to Christian values and participates in the political process in Thalwil.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The Evangelical Party Thalwil tries to develop its own approaches and ideas also in the field of energy transition, indirectly relying on the RRI keys.
Relevance of RRI keys to the stakeholder organisation	The RRI approach is unknown to the representative of the Protestant party, yet the party acts in modus operandi according to the rules of the RRI concept. For a political party, public engagement is important because, on the one hand, it must reflect the needs of the population in its activities, and on the other hand, it must communicate its ideas and measures to the population. The Evangelical Party Thalwil is also committed to regularly updating the population by providing data on political issues and information via social media, which also relates to the RRI key "open access". Gender is an issue in the composition of the leadership of the Evangelical Party, they try to work on strategies that promote gender balance in the leadership of the party.
Relevance of AIRR dimensions to the stakeholder organisation	Anticipation: The Protestant Party Thalwil tries to interweave current problems and innovative future solutions via future scenarios. This is an essential part of the political work of a party on the topic of climate change and energy transition. Inclusion: In addition, from the perspective of the Evangelical Party Thalwil, it is also important to offer events that involve various social groups in the solution process.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy Transition	Although the party currently has no great political significance for the community, as it can only muster a few votes, the Evangelical Party Thalwil nevertheless supports the energy turnaround and thus stimulates discourse within the community. The party is an important anchor of political discourse on ecological issues in the community.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with low levels of experience in RRI ■ Stakeholders with low levels of influence on RRI in practice
How can stakeholder contribute to the adoption of	Thus, the stakeholder can conditionally contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance.

RRI principles and the AIRR dimensions within territorial governance?	Currently, the party is not sufficiently represented in the governance and administration of the municipality, yet the party can help shape the political process in the municipality and raise awareness of energy transition issues among its constituency through public activities.
Website of the organisation	https://evp-thalwil.ch/home

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Name of stakeholder organisation (and abbreviation): **Social Democratic Party of Thalwil**	
Profile of the organisation	The Social Democratic Party of Thalwil (SP) is committed to social justice and democracy, decent working and living conditions, solidarity with the disadvantaged, and ecologically responsible action. The party fulfils this task through political information, actions, education, active community politics and the nomination of candidates for public offices. In the 2019 National Council elections, the SP had captured 15.18% voter share in Thalwil, having support from one in five voters. In its current policies, the SP represents classic social democratic positions. These include its advocacy for a strong state and public service, against far-reaching economic liberalisation but in favour of social liberalization, for more environmental and climate protection, for an opening of Switzerland in foreign policy, and a pacifist security policy
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to Social Democratic Party because its key principles include transparency in strategic and spatial planning as well as opportunities for citizens and experts' participation in a dialogue about energy actions. However, starting with the institutions, interested parties should take responsibility in the overall process. The party provides input, to the municipal council and to commissions.
Relevance of RRI keys to the stakeholder organisation	Although SP politicians are not familiar with the RRI framework, the party's modus operandi is close to RRI principles in practice. The application of the RRI keys at the SP relates primarily to political topics around energy transition, social family policy and shaping political work in the municipality of Thalwil.
	Ethics is ensured as the party understands energy-transition as an act of strength that has to be morally justified and achieved in a socially responsible manner. Social principles are considered to be very important. According to the SP, the energy transition should be implemented in a socially responsible manner.
	Gender equality is applied as the representatives of the SP assume that women should also be involved in politics at all levels. However, what is often not seen alongside gender is the integration of young people. Gender strategies are launched top-down in the party.

	Open access is supported as SP assumes, transparency to be very important for communities. Data should be freely available to the public.
	The party advocates for various formats to promote **public engagement**. Citizen forums do not yet exist. For important issues there are consultations and workshops lakefront planning. Public workshops are open for everyone who wants to participate and bring inputs.
Relevance of AIRR dimensions to the stakeholder organisation	All AIRR aspects are important for SP. **Anticipation** is practiced at various levels in dealing with the topic of energy transition, e.g. the sustainability commission is supported.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	All four areas are relevant and connected to the work of the SP. The Social Party is not of major importance, as only every fifth voter opts for this party. Nevertheless, the party is currently involved in shaping the energy transition plan, and has explicitly integrated this topic into its election programme.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Political parties should involve business and society in the energy transition. The community has to set concrete goals; we need an overarching goal (CO2-free). In doing so, the party can have an important influence on the political decision-making process in the community, based on AIRR dimensions. If that would be in the community bylaws, then the community needs to do that.
Website of the organisation	https://thalwil.spkantonzh.ch

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Name of stakeholder organisation (and abbreviation): Sustainability Steering Committee	
Profile of the organisation	The Sustainability Steering Committee consists of members of the municipal council (one member acts as president) and other members elected by the municipal council.
	The Sustainability Steering Committee does not primarily initiate its projects but ensures that the aspects of sustainability are considered in planned projects. It therefore has mainly an initiating and controlling function. It delegates experts to work with the planning groups.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The Sustainability Steering Committee has the specific goal of firmly anchoring sustainability in Thalwil, for example applying for the Energy City label. The RRI approach helps to think of sustainability as an overall

	concept in such a way that various actors are anchored under the topic of sustainability.
Relevance of RRI keys to the stakeholder organisation	There is familiarity with the RRI approach, especially through her research activities. The Sustainability Steering Group strictly adheres to the approaches and ideas of the RRI approach. Regarding the RRI keys, the topic of gender equality is often still given too little attention when it comes to planning new measures. Open access to data is an important issue for the Committee because this is a prerequisite for the Committee's work. At the same time, the decisions and plans of the Committee are communicated to the population, which requires open access to data and information. The Committee would like to initiate an active exchange among citizens in the sense of public engagement.
Relevance of AIRR dimensions to the stakeholder organisation	**Anticipation**: The Sustainability Steering Committee undertakes many projects and activities to anticipate the effects of climate change, such as currently participating in a project on research approaches for automated driving. This makes approaches to community solutions feasible at an earlier testing stage. The Sustainability Steering Committee is part of a forum for participation in the policy anticipation process. From the perspective of the Sustainability Steering Committee, the issue of sustainability not only encompasses environmental aspects, but is also thought of in social dimensions in the Commission. For the Committee, the involvement of various stakeholder groups from the local community is a prerequisite for finding new solutions and advancing the energy transition. At the moment the involvement of the Committee in policy decisions is decided on a case-by-case basis. There is currently no automatic mechanism that involves the body in all political processes in the community.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	The Sustainability Steering Committee has a great role for the RRI-LEADERS project and for the topic of energy transfer in the municipality of Thalwil, as it exerts an influence on the political decision-making process. In the future, all political decisions should be examined by the committee for their added value for the topic of sustainability, so that the committee strongly promotes the topic of sustainability and especially the topic of energy transfer in the community.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR	Since the Commission is a part of the community's policy-making body, their participation in the adoption of the RRI and AIRR principles will have a direct positive impact on the development and implementation of strategic and spatial planning policies at the community level.

dimensions within territorial governance?	
Website of the organisation	https://www.thalwil.ch/nachhaltigeentwicklung

■ **Civil society**

Name of stakeholder: **C. E.**	
Profile of the stakeholder (person)	Working-age citizen living in the municipality of Thalwil, managing director of an IT consulting company.
Relevance of Responsible Research and Innovation to the stakeholder	The interviewee does not know the RRI concept, but he deems many elements important.
Relevance of RRI keys to the stakeholder	**Education**: The civic member sees education as the crucial approach for the energy transition and thus very important for the community of Thalwil. Following the opinion of the civil society member, education (cantonal task) must also be influenced on a local level, e.g., through excursions or additional offers. In his opinion, children are still very receptive to the topic of sustainability and already understand the scope of the problems of the future. They also have the potential to contribute to climate neutrality and influence their parents. Overall, he thinks the community needs to reach out to "all citizens," plan information sessions and science education. He thinks it would be important to try to reach many people in the community, e.g., develop a platform for exchange.
	Public engagement: When it comes to the topic of citizen participation, according to the civic member, it is up to the municipality and the city council to provide a platform to engage with things. From the perspective of the civic actor, this is an important lever to drive the energy transition.
	Ethics: According to the civic member, ethics is important at the local level and must also be firmly anchored in the education sector. He sees ethics as a control and evaluation key at the same time. Therefore, ethical approaches are only possible if one has an idea of how our society functions, here the civic member sees the task of politics to break this down to the municipality.
Relevance of AIRR dimensions to the stakeholder	**Anticipation**: There is a positive attitude towards the AIRR dimensions of community organisation. A difficulty is detected in the fact that if people do not act today, more efforts will be needed in 10 years to act on the energy transition. Participation is the right key to move forward in the energy transition. Knowing how the population of the municipality will develop - will the city need new buses, new railway lines. Forward thinking is necessary to plan ahead in spatial planning,

	where many changes are necessary to get on track with the energy transition.
	Inclusiveness: The civic member thinks that without having the people on board, the municipality cannot change anything in terms of energy transition. The people of the municipality need to be involved and the municipality needs to open multimedia channels to reach out and get the community on board. Inclusion is a key factor for the energy transition, from the perspective of civil society.
Importance / role of the stakeholder within the territory in the context of the chosen policy focus: Energy Transition	Civil society is very important for the energy transition, because it can only be supported and implemented by a broad population initiative.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: ■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI ■ **Stakeholders with high levels of power** ■ Stakeholders with high levels of influence on RRI in practice (As whole stakeholder group, not the single civic member)
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	■ Through civil society organisations ■ Through political initiatives ■ Through voting behaviour
Website of the organisation	

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Name of stakeholder: **R. G.**	
Profile of the stakeholder (person)	Working-age citizen with ties to the municipality of Thalwil.
Relevance of Responsible Research and Innovation to the stakeholder	Low relevance for the stakeholder as citizen, but relevant to her in her role as an employed person since she works for a regional planning and energy consulting firm.
Relevance of RRI keys to the stakeholder	For the respondent as a civil society actor, the RRI keys are relevant - in relation to the energy transition, especially public engagement, open access and science education. Open access can be used to address upcoming challenges, set new goals and accelerate them into society.
Relevance of AIRR dimensions to the stakeholder	The AIRR dimensions are hardly relevant and tangible for the respondent. The person has thought about the RRI dimensions on a

	very abstract level and has not seen any reference to their social engagement.
	For the interviewee's work, however, anticipation plays the most important role. Here she understands, on the one hand, the informing character of future models. "But it can also be overwhelming and cause the individual to reject them". In particular, the interviewee sees a dependency between anticipation and power. Only people with decision-making power could implement anticipated solutions. "Is it the level of the community? Or the level of the individual? It's not the same". **Inclusiveness**: If the population is involved in the development of a goal, they are more likely to support it in the end, including the measures that are derived from it.
	Responsiveness is perceived by respondents as important at the individual level, but even more important at the community level.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy Transition	Important role – especially in Thalwil, civil society has shown its strength and influence (mostly through the civil society organisation. In Thalwil, the civil population has already had great influence and impact by exerting pressure on politics and has been able to demonstrate success in various sustainability issues over the past 20 years.
Relevance of the stakeholder to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: ■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI ■ **Stakeholders with high levels of power** ■ Stakeholders with high levels of influence on RRI in practice (as whole stakeholder group, not the single person)
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	■ Through civil society organisations ■ Through political initiatives ■ Through voting behaviour
Website of the organisation	

■ Research and Academia

Name of stakeholder organisation (and abbreviation): ETHZ- Institute for Traffic Planning and Transportation Systems	
Profile of the organisation	The Institute for Traffic Planning and Transportation Systems (ETHZ) generates new knowledge for planning, design, safety, operation, and maintenance of transport systems. transport planning, transport modelling, agent-based modelling, transport systems, traffic engineering and autonomous vehicles. ETHZ is one of the most prestigious universities in the world and regularly occupies top positions in university rankings. Numerous advanced studies for a doctorate in the technical, mathematical and natural sciences are possible. Currently, around 23,000 students and doctoral students are enrolled.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI-framework plays a major role for ETHZ in all respects. On the one hand, it is a matter of aligning one's own institute in such a way that it corresponds to the perspectives of RRI, RRI keys and AIRR dimensions, and on the other hand, ETHZ applies to many EU projects and integrates RRI also on the research side.
Relevance of RRI keys to the stakeholder organisation	While most keys describe the work process at a modern university in operational terms, some aspects of RRI play a special role: **Gender** is also an issue in research, e.g., when it comes to how the household organises mobility itself. Within the department, efforts are made to achieve a gender balance among staff. Currently there are 1/3 female PhDs, but few female postdocs. In the technical areas, there are often still too few female postdocs. Regarding **open access** to data and publications. While publications are now mostly open access and there is a budget for them, they have mostly been available on homepages for longer. In addition, the department is involved in standardization processes that set a standard for society.
Relevance of AIRR dimensions to the stakeholder organisation	All AIRR aspects are important for ETHZ. **Anticipation** is practiced to a certain extent since new research frameworks must also be found for future research. The department tries to integrate different resources for this purpose and to cooperate too much with other experts. **Reflection** is related to evaluating teaching, promotion as well the research and is regularly reflected and the growth goals of the staff are evaluated.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus:	]Although the department is not directly linked to the municipality of Thalwil, there is generally a lively exchange between ETHZ and the civilian population and with the municipality of Thalwil. In Thalwil, some ETHZ scientists also work in the municipal administration, and both develop their projects or advise them with their scientific expertise.

- Energy transition	
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	While the work of the department tends to be basic research, which means that there are few resources for direct consulting projects. Nevertheless, research provides important information for the sustainable design of permissible infrastructure projects. The community of Thalwil also benefits directly or indirectly from this research.
Website of the organisation	https://www.ivt.ethz.ch

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Name of stakeholder organisation (and abbreviation): University of Zurich, Digital Society Initiative, Ethical Research Department	
Profile of the organisation	Research areas of the department are ethics of information and communication systems, neuro-, and empirical ethics. Digital society, the impact of digital transformation on research and innovation outreach activities with external stakeholders, plus focus digital intelligence group, normative and empirical research, experiment, reaction.
Relevance of Responsible Research and Innovation to the stakeholder organisation	RRI is part of the research conducted by the Ethics Department. Researchers are intensively involved in ethical issues in various research areas and the application of ethics in the design of university research.
Relevance of RRI keys to the stakeholder organisation	Although RRI as a concept is unfamiliar, the RRI keys are of great importance to the research and operations of the department. E.g., open access to data is encouraged by university policy, especially the so-called green path, which requires open access publication of research results. Ethics, is also part of the department's research theme. The department is currently researching ethical issues in the field of digitization.
Relevance of AIRR dimensions to the stakeholder organisation	The AIRR dimensions are important to how the working group operates. The following example is considered a good measure of reflection: Twice a year, the department organises a day to reflect on current work practices and current issues. Retreat: twice a year the department organises a day outside the usual agenda. In terms of anticipation: new research topics are defined and identified in advance, based on current research trends and trends in society.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: - Energy transition	By taking a scientific point of view, the department could take on an advisory role on how issues of the policy topic can be further implemented in society from an ethical point of view and how the interaction between the various actors can be improved.

Relevance of the stakeholder organisation to the objectives of RRI-LEADERS	■ Stakeholders with high levels of experience in RRI ■ Stakeholders with low levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	An advisory role with a scientific perspective.
Website of the organisation	https://www.dsi.uzh.ch/en/about/team/management/mchristen.html

■ **Business**

Name of stakeholder organisation (and abbreviation): Electricity Utilities of the Canton of Zurich (EKZ)	
Profile of the organisation	EKZ is a Swiss energy supply company. EKZ employs around 1324 people and has a pipeline network of about 15,000-kilometres. It is an independent institution under cantonal public law. EKZ covers around 9% of Switzerland's total electricity demand.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is highly relevant, even though the EKZ was not aware of the RRI framework. But many of the elements of the framework are highly relevant to this stakeholder. They do not have a large research department themselves, but as a large energy supplier, the EKZ have their own innovation strategy and they take care of responsible business and are in active exchange with their stakeholders.
Relevance of RRI keys to the stakeholder organisation	EKZ considers all keys relevant. **Ethics**: very relevant, especially because of the political (owned by the canton and politicians have seats on the board of directors) and public exposure (company provides basic service to the whole society) of the company. **Open access**: a bit less relevant, however, the company is starting to consider the status of this RRI key more closely. **Public engagement**: very high relevance, there is even a separate department taking care of this. **Gender equality**: the company is officially "non-discriminatory", with equal wages for equal work and with differences among gender types of less than 5%. In terms of the industry, however, EKZ tends to be male-heavy, but being non-discriminatory is in the DNA of the company. **Scientific education**: also, relevant and it is being promoted through a university fund, through projects, through "social sponsorships", and by enabling and promoting further training among employees.

Relevance of AIRR dimensions to the stakeholder organisation	In general: high relevance. **Diversion/inclusion**: high relevance. E.g., there is a whole working group working on the topic diversity and gender equality. Additionally, the voting population of the area with their values and interests are actually indirectly represented at the very top of the company. Politicians legitimacy sit on the company's board of directors. **Anticipation**: Important, mostly through the topic of innovation. Innovation should certainly not be an end for EKZ. EKZ observes what other players in the same industry are doing. EKZ is not a first mover, but they observe, and if there is a new development (and a promising business case) on the horizon, they will be there. But they cannot afford to just invest and hope it will not be a loss, because they have an obligation towards the taxpayers as they are publicly owned. If they do F&I, then it has to correspond with an overriding mission/goal of the whole company. **Reactivity**: in terms of alignment with the changing needs of society. EKZ's Board of Directors is mostly represented by politicians elected by the people, so in this way the company responds to the changing will/needs of society. In addition, the company monitors current developments and checks how relevant they are.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy Transition	High importance for the project, since EKZ covers around 9% of Switzerland's total electricity demand.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: ■ Stakeholders with high levels of power (1) ■ Stakeholders with high levels of influence on RRI in practice (2)
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	EKZ can make a valuable contribution to shaping the future of energy supply in the community in line with the AIRR dimensions. Examples given above.
Website of the organisation	https://www.ekz.ch/de/privatkunden.html

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Name of stakeholder organisation (and abbreviation): Energie 360° (e360)	
Profile of the organisation	Energie 360° (e360) is a Swiss company owned by the public sector. The main owner is the city of Zurich. It offers energy and e-mobility solutions nationwide. These include solutions for heating, cooling, electricity, grid services, and gas filling stations as well as electric charging stations and wood pellets. E360 implements energy networks based on renewable energy throughout Switzerland. Regionally, in addition to the city of Zurich, the company supplies natural gas and biogas to around 40 other municipalities in the canton of Zurich as well as 19 independent gas utilities. Energie 360° is the largest biogas reseller in Switzerland. The company employs around 290 people and operates a 1'300-kilometer gas pipeline network.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The company assesses the relevance of Responsible Research and Innovation for the stakeholder organisation as Highly relevant. but the company was not aware of the RRI framework at the beginning of the conversation. Then the respondent realised that many elements of the framework are very relevant to this stakeholder. See below for details.
Relevance of RRI keys to the stakeholder organisation	**Ethics:** Energie 360° has only recently adopted a new Code of Conduct, thus expanding the topic of ethics. Therefore, a new compliance officer (a lawyer) was hired specifically for the area of ethics, who also supports the employees in ethical issues. Open access: Relevant, but it is a challenge for Energie 360° and the topic of data security is generally a big challenge in Switzerland due to different national regulations. The company itself has built up a certain amount of data over the years, which is already accessible internally. But there are increasing challenges in accessing building-related energy data that would be important for the region. Some of this data is held by the federal government, some by the canton, and some by the municipal inspectors. Unfortunately, Energie 360° cannot access all the data it would like to offer the best solution for customers. Scientific education: important for the company for several reasons: it enables the company to further qualify its employees and the company has recognised that this also has great economic potential. From the company's point of view, it is difficult for the company to sell certain (sustainable) products to customers because customers/society are not yet sufficiently informed. In the company's view, there is a need for scientific education of the population about sustainability. Gender equality: There are far more men than women in the technical fields. Internally, this is a big issue, as Energie 360° would like to attract more women to the industry. But the company is officially non-discriminatory in terms of wages.

Relevance of AIRR dimensions to the stakeholder organisation	In general, the AIRR dimensions have high relevance for the stakeholder organisation. **Anticipation** was seen as particularly important by the respondents and is part of the company's DNA. The company perceives itself as particularly proactive and tries to offer solutions before the need for them arises. For example, it used to be a pure "natural gas" company, but at some point, the company realised that it would eventually cease to exist with this business model, so it deliberately launched a diversification strategy. Today, innovation is handled quite strategically, and the company has become more future-oriented, which is quite relevant. Equality and diversity are relevant issues in the company. Strict attention is paid to gender-equitable wage payments and attempts are made to keep an eye on the ratio of men and women.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy Transition	The stakeholder organisation has a high importance within the area within the chosen policy focus, as it is an energy supplier used by many residents, especially in the municipality of Thalwil. Therefore, the company plays a direct role in the energy transition.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: ■ Stakeholders with high levels of power (1) ■ Stakeholders with high levels of influence on RRI in practice (2)
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	See examples above (RRI key / dimensions). The company must be seen as a direct stakeholder in the energy transition in Thalwil, i.e. it has to be directly involved in the community's anticipation processes on the topic of energy-saving and energy production.
Website of the organisation	https://www.energie360.ch/de/unternehmen/

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Name of stakeholder organisation (and abbreviation): Energy Cooperative "Zimmerberg" (EGZ)	
Profile of the organisation	The "Energy Cooperative Zimmerberg" (EGZ) is a SME, or rather a small non-profit cooperative with fewer than 10 employees based in the Canton of Zurich. The purpose of EGZ is the regional distribution and use of renewable and sustainable energy sources for the generation and promotion of environmentally friendly heat, electricity, and mobility. EGZ is committed to the rational and efficient use of energy and the reduction of greenhouse gases in the Zimmerberg region. The economic activities of the cooperative are serving the common good. The concerns of environmental, landscape, nature and heritage protection are

	considered within the framework of the cooperative's purpose. To achieve its goals, the EGZ essentially sets itself the following tasks:
	■ Regional value chain for renewable and sustainable energy products.
	■ Provision of services such as consulting, conception, planning and operational optimization of plants and the like.
	■ Realization of own renewable energy production plants.
	■ Participation in third-party plants as well as financing support for third-party plants.
	■ Implementation of innovative mobility concepts.
	■ Promotion of resource efficiency.
	■ Dealing with technical and energy policy issues and providing communication services.
	With its services, the cooperative addresses private individuals, organisations, companies, and municipalities.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI concept was not known to the EGZ. However, the company considers many elements of the concept seem to be very relevant to its daily business.
Relevance of RRI keys to the stakeholder organisation	The RRI keys are relevant because the company considers them important for the energy transition and therefore, they are also relevant for the company itself.
	For example, the company conducted a survey among members of the community on the topic of the energy transition, which is an example of public engagement. The results are then fed back into marketing and product development. For other keys that do not have the same relevance to the energy transition at the local level, the company does not have the resources to deliberately address them, for example so far not much has been done regarding gender equality.
Relevance of AIRR dimensions to the stakeholder organisation	The dimensions are relevant but not coped with consciously.
	With their products the company reacts to needs, anticipates needs, includes different stakeholders, etc.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: energy transition	The company is providing products/solutions which promote energy transition on a local level, where it is an important stakeholder.
	It could contribute to the transformative outlook through its product/solutions which basically all are in a way "best-practices".
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice in the community of Thalwil.
How can stakeholder contribute to the adoption of RRI principles and the AIRR	The contribution is twofold: The energy cooperative "Zimmerberg" contributes to the (faster) energy transition and, as an economic actor, can further integrate elements from the RRI concept into the company

dimensions within territorial governance?	and make RRI effective in the region. The company's products are part of the future planning and anticipation of energy supply in the community.
Website of the organisation	https://e-zimmerberg.ch/

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Name of stakeholder organisation (and abbreviation): Gas supply Thalwil	
Profile of the organisation	Gas supply Thalwil is an institution/company under public law. It supplies natural gas and biogas via the underground supply network to customers in different municipalities of the Canton of Zurich.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI concept was not known. However, some elements of the concept are considered to be relevant for the company. For example, the topic "net zero emissions by 2050" is a focus of the institution. The society of the municipalities which are provided by gas supply Thalwil can only comply with the 2050 target, if the municipality and its institutions provide the means to achieve this, e.g., with regard to heating solutions.
Relevance of RRI keys to the stakeholder organisation	Some of RRI keys are relevant to the stakeholder organisation: **Gender equality**: Equality is already practiced within the company/institution. **Public engagement**: There is a commission structure within the company. Each political area has a commission made up of political partners from the people. This is the higher-level control body, so to speak. Key RRI issues are discussed there in a dialogue. Without it, the company would not be able to exist in public administration. **Open access**: The company buys in a lot of know-how. It cannot hire many specialists themselves. Accordingly, many studies, expert opinions, etc. are obtained from external sources. Depending on the area, these may or may not be available to the public. **Science education:** there is an initiative that indirectly requires science education for employees - at least certain elements of education.
Relevance of AIRR dimensions to the stakeholder organisation	**Responsiveness**: Relevant to specific questions that the company needs to know the answer to in the future. The company then goes to specialists for advice. Specialists and scientists then work out possible solutions and present them to the company, followed by a report. In addition, the evaluation processes in the company are becoming increasingly standardised, which helps the company to establish a high standard and practice quality management.
Importance / role of the stakeholder organisation within the territory in the	The role of stakeholder is very important, because as gas provider the company play a key role within the energy transition process.

context of the chosen policy focus: Energy Transition	
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of power (2) ■ Stakeholders with high levels of influence on RRI in practice (1)
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	By operating as a company under public law, "Gas Supply Thalwil" is closely linked to the civil society and can contribute considerably to the adoption of various RRI elements, for example through the products portfolio it offers to the citizens.
Website of the organisation	https://www.thalwil.ch/aemter/5754

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Name of stakeholder organisation (and abbreviation): Naef energietechnik	
Profile of the organisation	Naef energy management is a planning office for building services that has been in existence since 1995. It is a micro-business, started with one person and now it is the owner and two employees. Naef energy management stands for innovative solutions in the building services sector that reduce energy consumption. Knowing that the building stock is one of the main causes of global warming, Naef considers it a top responsibility to seek sustainable solutions in the long term. As a partner with building owners, architects, specialist planners and tradesmen, Naef seeks a balance between economic and ecological requirements. Energy-efficient new buildings as well as the renovation of old buildings is their main interest.
Relevance of Responsible Research and Innovation to the stakeholder organisation	There is no familiarity with the RRI framework and its keys are not considered as particularly relevant to this business.
Relevance of RRI keys to the stakeholder organisation	The company classifies the RRI keys as an increasing resource for the operational work of the company. In particular, the topic of open access is increasingly being addressed in the company and structures are being developed to deal with it in a standardised manner. Transparent communication is an important part of dealing with company partners and customers, and thus also a part of the company's strategy.
Relevance of AIRR dimensions to the stakeholder organisation	The company develops through anticipation and continuous development of products, through systematic reflexion and quality management to achieve better market readiness and customer satisfaction.
Importance / role of the stakeholder organisation	This stakeholder is very important to the issue of energy transition at the local level. The heating/energy issue is central to the climate change

within the territory in the context of the chosen policy focus: Energy Transition	journey, and ultimately it is the energy planners who play a critical role in deciding/planning/purchasing and installing/adapting the appropriate product for each building.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	This stakeholder is most likely to contribute to responsiveness because its company responds to changing conditions and customer needs and then plans, purchases, and installs adequate solutions locally. The company can also strengthen reflection and anticipation in the community as innovative services in the energy sector are developed and offered locally.
Website of the organisation	naef energietechnik (naef-energie.ch)

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Name of stakeholder organisation (and abbreviation): Precision Landing (limited liability company)	
Profile of the organisation	Precision Landing is an SME from Thalwil, a consulting company especially for sustainable solutions and specialised in cooperation with the public sector, with another offshoot in Germany.
Relevance of Responsible Research and Innovation to the stakeholder organisation	Precision landing does not know the concept of RRI but deems many elements relevant for the company, because the company must initiate change processes for their customers and teach them forward-looking leadership. And by acquiring and investing in companies that are moving into precisely this area of innovation.
Relevance of RRI keys to the stakeholder organisation	The company considers all keys to be relevant to its business. Open access is particularly important for customer contact. It is important for the company to be able to access public data for consulting assignments on the one hand and to be able to transparently communicate solutions for issues from the energy sector on the other. Gender plays a major role in that the company tries to hire employees without gender inequalities.
Relevance of AIRR dimensions to the stakeholder organisation	The AIRR dimension are important for stakeholders. In particular, the involvement and testing of specific customer groups is necessary to develop innovative products and solutions for which future models as well as the involvement of different stakeholder groups are crucial.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy Transition	It is important because the company is involved in sustainable innovation processes and contribute to finding sustainable solutions for different stakeholders (companies, the public sector, etc.).

Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	Please indicate one of the four areas of relevance: ■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	■ Through cooperation with public institutions, as they are specialised in this area ■ Through innovative productions, especially in the dimension "anticipation"
Website of the organisation	https://www.precision-landing.com/

9.4 Mapped RRI stakeholders in the City of Sabadell, Catalonia

■ **Policy-makers**

Name of stakeholder organisation (and abbreviation): **Generalitat de Catalunya, Department of Labour, Social Affairs and Families (**Regional government)	
Profile of the organisation (info taken from its website)	The Department of Labour, Social Affairs and Families has as its functions the policies of services, benefits and social protection of equality, youth, the elderly, families, children and adolescents, immigrants, gays, lesbians, bisexuals, transgender and intersex people, adoptions, people with disabilities and dependencies, as well as managing the care facilities of the social services network and establishing policies for social inclusion. It is also responsible for community action, coordinating and managing the network of civic and social facilities as well as civic and social awareness and support for organisations and volunteers.
	In the field of their work, the department has competences in the policies of labour relations and labour inspection, employment and labour intermediation, and in the social economy, the third sector, cooperatives and the self-employed.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The organisation is in charge of introducing and applying several RRI principles in regional policies, especially those in the social domain. RRI is considered a key factor in designing and implementing policies as a way of taking advantage of collective intelligence and wisdom of citizens and organisations in facing strategic risks and taking profit of emerging opportunities in achieving development objectives.
Relevance of RRI keys to the stakeholder organisation	RRI keys are very relevant to the Department due to their policy focus and scope of activities where ethics, gender and public engagement are the main drivers. Responsibility is perceived in terms of Corporate Social Responsibility.
Relevance of AIRR dimensions to the stakeholder organisation	**Anticipation** is highly relevant and important but challenging to apply to address a pressing.
	Inclusiveness is also considered important as it could help the department to promote projects, new ideas and actions, as well as to facilitate their implementation and success.
	Responsiveness and accountability are both crucial for the policy area of labour, social affairs and families.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation	The department is focused in social policies, specially focuses on social affairs and residences for the elderly people, with the following responsibilities:

(active ageing, circular economy, innovation in design, etc.)	■ To promote a strategic, global and systemic view of the social policies related to Corporate Social Responsibility of Generalitat de Catalunya. ■ To bring services, plans and strategies closer to the territory. ■ To become a reference agent in the territory regarding social policies. In this COVID 19 scenario, the management of elder residences vaccine planning and social action programmes coming from this department have a strong impact in active ageing. However, it is really interesting to know how the regional government implements RRI concepts in social policies, which at the same time can be interwoven with other regional policies like innovation ones.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The stakeholder can contribute to raising the visibility and awareness of the RRI principles through demonstrating their direct application in territorial social policy and the linkages of social policy with other regional policies.
Website of the organisation	https://treballiaferssocials.gencat.cat/ca/inici/index.html

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Name of stakeholder organisation (and abbreviation): **Actividades Integradas S.A. (Nodus Barberà)**	
Profile of the organisation	Nodus Barberà is a public company of the Barberà del Vallès City Council in charge of boosting business development.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to the organisation due to its status as an entity belonging to local public administration. In this sense, they understand responsibility as an active principle of public policies of the municipality that have to solve real needs of the industrial network and generate a change of the current paradigm in favour of the distribution of wealth and social welfare.
Relevance of RRI keys to the stakeholder organisation	RRI keys are relevant for the stakeholder organisation. It clearly uses public engagement and transparency. But in general, all RRI thematic keys are considered relevant for the social and economic development of the territory. RRI thematic key have to be in alignment in order to generate a positive impact on the territory and its people.
Relevance of AIRR dimensions to the stakeholder organisation	In relation to AIRR dimensions, anticipation is very relevant since it allows to stablish territorial strategies and dynamics in collaboration with other stakeholders.

	Inclusiveness also appears as a very important issue for the organisation. It is essential in the economic promotion projects, as well as to boost innovation. They try to include this dimension at the programmes and actions design. The organisation usually establishes a coordination forum/session integrated by all socioeconomic agents in order to integrate their points of view, which will decide the actions and working axis of the different innovation public policies. This aspect is clearly linked to a reflexive governance in order make decisions.
	Responsive and accountable governance is put in practice through two main ideas: private-public collaboration and the communication of actions. Public-private dynamics have been present in boosting their projects for a long time. They are important to share responsibility and co-governance of projects, at the same time to allow to get greater involvement of other strategic entities that contribute to the development of the territory. Besides, good communication is essential. It is necessary to explain to the public and to projects' beneficiaries all those actions that the organisation promotes as well as their purpose and results. Communication requires transparency so it allows participation of a large majority of citizens in the actions.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	The organisation has a direct relation to the territorial focus and with other stakeholders, especially companies, which have an important role in the smart specialization deployment.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Nodus Barberà can contribute to the adoption of RRI principles and AIRR dimensions due to its direct involvement in local policy. Not only do they have knowledge of the territory but are able to promote public-private synergies.
Website of the organisation	https://nodusbarbera.cat

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■ Civil Society Organisation

Name of stakeholder organisation (and abbreviation): **Cambra Oficial de Comerç, Indústria, Serveis i Navegació de Barcelona (Barcelona Trade Chamber)**	
Profile of the organisation	Barcelona Trade Chamber is a public law corporation that provides services to companies, contributing to the regeneration of the economic fabric and the creation of employment, and consecrating its function to the representation, promotion and defence of the general interests of trade, industry, services and navigation. However, according to law, its legal regime does not allow it to assume the representation and leadership of the business world. Its territorial area of influence is Barcelona province except Sabadell, Manresa i Terrassa cities which, for historical industrial reasons, have their own chamber of commerce.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to the Chamber because of its own nature, providing services to companies and defending the interests of trade, industry, services and navigation. Furthermore, it has a narrow relationship with many stakeholders in the territory, like private companies and public administrations.
Relevance of RRI keys to the stakeholder organisation	The RRI keys they implement are gender balance and company ethics, both necessary for fulfilling their tasks and objectives. They have the Observatori Dona Empresa Economia (Observatory Woman Business and Economy), a forum for reflection, study and proposals with the aim of highlighting the professional, entrepreneurial and entrepreneurial woman in today's economic world.
Relevance of AIRR dimensions to the stakeholder organisation	All the AIRR dimensions are addressed: ■ Anticipation, owing to the nature of this stakeholder, which has to develop and establish policies and lines of actions favouring business growth. ■ Inclusiveness Is ensures as the governing bodies of the Chamber are made up of representatives of the different business sectors and other business organisations. Furthermore, the Chamber has different commissions and working groups and a system of participative consultations with different stakeholders like companies and public bodies. ■ Reflexive governance Is applied as the Chamber has a Cabinet of Economic Studies, dedicated to provide relevant information on data, indicators, references or related analysis for obtaining elements of reflection and analysis in the field of economics and territorial development. ■ Responsible governance exists as the Chamber promotes a public-private relationship that guarantees maximum openness and equal access to information and services.

Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	They do not have a direct relation to the territorial focus. Its importance lies on the fact that it is a prestigious organisation in the Barcelona area system with close relationships with many firms and public administrations which could deal with any of the focus issues.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high level of influence ■ Stakeholder with high level of interest
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Barcelona Trade Chamber is a key stakeholder for implementing RRI in the territory since they have a lot of influence in private companies and in the public administration, owing to its role as a consultative and collaborative body.
Website of the organisation	https://www.cambrabcn.org

■ **Academia and Research**

Name of stakeholder organisation (and abbreviation): **ESDi Higher School of Design (ESDi)**	
Profile of the organisation	ESDi has been a pioneer centre in Design studies for almost 30 years. Affiliated to the Ramon Llull University, ESDi Higher School of Design is located in a historical building in the centre of Sabadell. As a leading school in formal design education, ESDi has been selected in the past two years as the best Catalan centre to study design, according to the prestigious BBVA ranking. It is the only centre within Spain to give academic training in six curricular disciplines of the Official Degree in Design: Fashion, Audiovisual, Product, Interior, Graphic and Design Management (Multidisciplinary Integration), and it is also a pioneer in Smart Design education.
Relevance of Responsible Research and Innovation to the stakeholder organisation	ESDi is well familiar with the RRI framework and fully aware of its application. RRI is perceived as crucial for design development and innovation.
Relevance of RRI keys to the stakeholder organisation	All RRI keys are relevant to ESDi. As a university centre specialised in design, designing and RRI implementation are understood with the involvement of all the agents and citizens in research and innovation from the beginning of the innovation process; persisting in achieving and ensuring gender equality in the research process and its content; increasing open access to research results; promoting science education,

	within the framework of design; finally, respecting the fundamental rights of all.
Relevance of AIRR dimensions to the stakeholder organisation	AIRR dimensions are all relevant, but more pronounced are: ■ Anticipation as key issue in ESDI´s research and innovation process, following the user experience methodology. ■ Inclusiveness. Citizens are included in their research methodology. ■ Reflexivity. In the academic programme of ESDi there is a subject called "design ethics" which is supported by the designer's decalogue for good practices.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	ESDi plays an important role in the deployment of the territorial innovation policies. It is closely lined with several stakeholders and is pioneering in innovation and research in design.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The stakeholder has been actively involved in different innovation processes in the territory of Sabadell. It plays an important role at the local level and has capacity to influence the adoption of RRI principles and AIRR dimensions on higher territorial levels.
Website of the organisation	https://esdi.es/en

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Name of stakeholder organisation (and abbreviation): **Barcelona Supercomputing Centre (BSC)**	
Profile of the organisation	Barcelona Supercomputing Centre - Centro Nacional de Supercomputación (BSC-CNS) is the national supercomputing centre in Spain located in Barcelona. A supercomputer is composed of thousands of processors working in parallel and it responds to the needs to process huge amounts of data in real time with quality and accuracy[22]. BSC is specialised in high-performance computing (HPC) and manages the MareNostrum, one of the most powerful supercomputers in Europe, at the service of the international scientific community and of industry that require HPC resources. Most of its research lines are developed within the framework of European Union research funding programmes,

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[22] https://ec.europa.eu/digital-single-market/en/blog/why-do-supercomputers-matter-your-everyday-life

	and the centre also performs basic and applied research in collaboration with leading companies[23].
Relevance of Responsible Research and Innovation to the stakeholder organisation	RRI is quite relevant for BSC because it develops its mission from the perspective of social responsibility, focused on paying back to society the investment made through public budgeting for scientific research. It also cooperates on a regular basis with other researchers and universities, industry and public administrations.
Relevance of RRI keys to the stakeholder organisation	The open access to its research activities data is guaranteed and science education programmes addressed to youngsters are developed on a regular basis, like the school visits to the centre[24] and the female-focused tours for primary schools. Likewise, the compulsory gender balance and diversity issues[25] and ethics in research are taken care of and included in the organisational formal plans.
Relevance of AIRR dimensions to the stakeholder organisation	Regarding the AIRR dimensions, the most worked *de facto* are those of anticipation, materialised in its strategic plan, and reflexivity through external scientific committees, panels of evaluation experts and infrastructure user committees which guarantee a critical evaluation of the activities and programmes of BSC. Owing to the technological complexity which supercomputing implies it is challenging to implement inclusiveness. Responsiveness is practiced but is based on their own reflections.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	BSC renders important services to research centres whose field of activities (Engineering, Biology, Medicine) are closely linked to the chosen policy focus.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholder with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Computing is one of the sectors of the present and the future and BSC gives an important service to other research centres and organisations, facilitating them to perform more accurate and faster tasks when conducting research. Besides, BSC is a prestigious organisation, with certain influence in the territory, which can act as a role-model for the organisations to which they provide their services.
Website of the organisation	https://www.bsc.es/

[23] https://www.bsc.es/discover-bsc/the-centre/what-we-do
[24] https://www.bsc.es/discover-bsc/computing-with-you/visits-for-primary-school, https://www.bsc.es/discover-bsc/computing-with-you/the-adventure-supercomputing-the-classroom
[25] https://www.bsc.es/join-us/gender-and-diversity-equality-plan

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Name of stakeholder organisation (and abbreviation): **ESADE**	
Profile of the organisation	ESADE is a global institution structured as a Business School, a Law School, and an Executive Education area known for the quality of its education, its international outlook, and its focus on holistic personal development. It has strong ties to the business world. ESADE conducts research projects and studies for regional government, companies and business organisations. It collaborates actively with other research centres and university research groups and also conducts specific activities for civil society.
Relevance of Responsible Research and Innovation to the stakeholder organisation	For ESADE, RRI is important, implementing the typical keys of a research and academia stakeholder, like ethics, open access and the compulsory gender balance. Apart from that, they have established relationships and regular collaborations with other stakeholders, like private companies, research centres and public administrations.
Relevance of RRI keys to the stakeholder organisation	Given that the main activities of ESADE are training, research and knowledge transfer, the RRI keys most implemented are Ethics and Integrity, open access and gender balance. ESADE has its own Ethics committee and carries out an assessment on the studies and research projects where humans are involved. Likewise, ESADE participates in a Horizon2020 project about gender equality plans for Social Sciences, Business & Management schools called www.equal4europe.eu. Their Research Office helps researchers with the dissemination of their works in open access and the Contents Department supports researchers in the dissemination of research results: articles, videos for general public, press releases, etc.
Relevance of AIRR dimensions to the stakeholder organisation	Anticipation and a light degree of inclusiveness are carried out in ESADE. Anticipation is applied in the design of their research proposals and some inclusiveness in certain social research studies, which by nature need the implication of people.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	They do not have a relation to the territorial focus. ESADE's interest in supporting RRI lies on the fact that it is a prestigious organisation in business and economy training, attracting students from all over the world. Those students can end up working or directing companies linked to the thematic focus of active ageing, circular economy or innovation in design.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high level of influence ■ Stakeholder with high level of interest

How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	ESADE is an organisation with a high international and national prestige and influence and can act as a role-model for other -similar or not- organisations. Besides, it has the potential capacity of training many current and next generation of business professionals in RRI values.
Website of the organisation	www.esade.edu

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Name of stakeholder organisation (and abbreviation): **Universitat Autònoma de Barcelona. Doctoral School.**	
Profile of the organisation	The Universitat Autònoma de Barcelona (UAB) is an institution governed by public law, with its own legal personality and assets and it operates with the autonomy granted to it by the law. The UAB wants to achieve a high level of excellence in university teaching, research, and knowledge transfer. Due to this commitment, the UAB works to guide research and academic activity towards a culture of peace, respect for human rights, equality and social progress, respect for the environment and sustainable development [1]. The Doctoral School at UAB has as its primary objective the organisation of the studies and activities of the PhD, with the firm commitment to develop continuous improvement and quality policies for the PhD Programmes.
Relevance of Responsible Research and Innovation to the stakeholder organisation	RRI is very important for the UAB Doctoral School. Since 2017 they organise informative sessions about it addressed to PhD students, senior researchers, and project managers. For them, it is relevant to transfer the RRI concepts to their employees to reflect about them and see if their research is aligned with them. They also have contacts with other stakeholders like companies and public administrations and they are members of CAPCIT (Catalan Parliament's Technology Assessment Council).
Relevance of RRI keys to the stakeholder organisation	As a public university, where the main activity is doing research, applying a good scientific practice and effectively transfer their research to society, the most relevant RRI keys are **open access**, **gender balance**, **ethics**, and **science education**. One example of that is the website about RRI keys. The application of the RRI keys has been mainly due to the work of the Strategic Projects Unit. Additionally, the Ethics Committee, the Observatory for Equality, the Strategic Research Communities (CORES UAB) and the Good Scientific Practice also have contributed to their implementation.
Relevance of AIRR dimensions to the stakeholder organisation	UAB addresses all the AIRR dimensions de facto:

	■ **Anticipation** is carried out because in all the research projects, the technological value, the horizons, the scenarios among other aspects are exhaustively evaluated.
	■ **Inclusiveness** is carried out through its participation in several citizen science projects such as App Plantees: Help us mapping allergy-causing plants, Citizen Co-Creating the City's Digital Cultural Heritage[2], or ARGO programme[3]. However, it is in a unidirectional way, not in the sense of co-creation.
	■ **Reflexivity** is carried out through the Internal Quality Assurance System, which monitors and reports the developed, the achieved and the pending actions and it also sets the objectives. Moreover, the reflexivity, is complemented by carrying out internal and external surveys to the different target groups.
	■ **Responsiveness,** as reflexivity¸ is achieved by the Internal Quality Assurance System, where the implementation of the new measures adopted are based on the established indicators and the analysis of the developed actions.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation)	They do not have a relation to the territorial focus. UAB's interest in supporting RRI lies on the fact that it is a prestigious organisation training, attracting Catalan students and from other places in Spain. Those students can end up doing research in centres or working for companies linked to the thematic focus of active ageing, circular economy or innovation in design.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholder with high levels of interest on RRI in practice ■ Stakeholder with high level of practice of RRI
How can stakeholder contribute to adoption of RRI and AIRR dimensions within territorial governance?	As a university, it trains the next generation of researchers in ethics, good scientific practices, codes. This experience can be transferred to other organisations or companies.
Website of the organisation	https://www.uab.cat/web/study-abroad/doctoral-school/the-doctoral-school-1345670651538.html

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Name of stakeholder organisation (and abbreviation): **Institut d'Investigació i Innovació Parc Taulí (Parc Taulí Research and Innovation Institute)**	
Profile of the organisation	The Parc Taulí Research and Innovation Institute (I3PT) is the result of the integration of excellence in knowledge and the innovative and improvement capacity of research groups, integrated into the lines of research and belonging to the constituent entities of the Institute: Parc Taulí Health Corporation, Fundació Parc Taulí, UDIAT Diagnostic Center,

	Sabadell Senior Citizen Service Center i Universitat Autònoma de Barcelona. Its mission statement consists of facilitating and promoting the activity linked to research and innovation, through a sustainable model, which promotes the translation of knowledge and results generated in society by providing value to contribute to well-being.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework is relevant to the Institute due to its own nature, having a direct impact on the society. It works through six agendas with the RRI principles: governance, ethics, science education, open science, gender equity and public engagement.
Relevance of RRI keys to the stakeholder organisation	RRI keys are relevant to the Institute which should be equally applied in all the R&I projects. However, ethics takes an important place in the organisation because they work with patients.
Relevance of AIRR dimensions to the stakeholder organisation	Concerning AIRR dimensions, anticipation is considered a key issue in strategic planning. Inclusiveness is also important for the organisation and is open to participation of various stakeholders. It maintains an important link with other organisations and companies of the territory in order to boost public-private collaborations. This dimension also includes citizens' engagement is of equal importance. Reflexivity is also taken into consideration by the organisation. They have been working through it by elaborating a compilation of all the activities done during 2020 so they could write a RRI action plan to be included in the new strategic plan 2021-2024. Responsiveness in terms of governance is also important and the organisation is trying to improve it. Currently, they are creating a Social Council that will be formed by citizens interested to research and innovation. In this sense, they are developing some good practices.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	The organisation has a direct relation to the territorial focus, due to its active relation with other relevant stakeholders. It actively participates in the territorial policy focused on active ageing, through its contribution in a specific project (Ininvallès),in collaboration with public administration, research institutions and citizens. However, they are very interested in applying RRI principles in other innovation policies that could be developed in the territory.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high level of influence ■ Stakeholder with high level of interest
How can stakeholder contribute to adoption of RRI and AIRR dimensions within territorial governance?	Institut d'Investigació i Innovació Parc Taulí is a key stakeholder for implementing RRI in the territory since it is well connected with other stakeholders and have knowledge of the territorial necessities and policies.
Website of the organisation	https://www.tauli.cat/en/

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Name of stakeholder organisation (and abbreviation): **CORE Smart and Sustainable Cities, UAB (University Autonoma of Barcelona)**	
Profile of the organisation (info taken from its website)	The research network of Smart and Sustainable Cities is a collaborative project where different research groups, departments, centres and campus infrastructures develop their joint capacities to create new multidisciplinary research activities.
	Smart and sustainable cities CORE initiative is located in the University Autonoma of Barcelona. It is a network composed by scientific specialists in areas related with the sustainable management of urban environments.
	Research interests cover a wide range of views from the economical and sociological aspects of industrial ecological design or the development of public urban design policies, to the application of specific technologies to innovative solutions for management of mobility and resources like energy, waste and water.
	The network has a flexible structure aiming to provide technological answers to specific social challenges. Its objective is to provide support to territorial needs improving current knowledge and tools.
	The CORE project wants to coordinate activities and share resources to support the research and technologic transference of the Sphere UABCie (Campus of International Excellence). It also wants to encourage these research activities into a European reference node.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The organisation was very familiar with the RRI concepts and fully aware of their application.
Relevance of RRI keys to the stakeholder organisation	The RRI framework is relevant to CORE (UAB) and all its thematic keys which should be equally applied in all the R&I projects. RRI should be understood with all its thematic keys as a whole. The following link was included with specific information about RRI at UAB: https://www.uab.cat/web/investigar/itineraris/la-recerca/recerca-i-innovacio-responsable-1345756307547.html
Relevance of AIRR dimensions to the stakeholder organisation	Anticipation is conceived as key issue in strategic planning. Inclusiveness also appears as a key issue for open innovation and RRI. Due to the fact that CORE programme works directly with territorial stakeholders, reflexivity is another key factor that is facilitated through the involvement of quadruple helix agents in the different research and innovation processes and to the maximum extent possible depending on the case.

Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	The stakeholder organisation plays an important role on the deployment of Smart Specialization policies since among their main objectives are: ■ Management of the community focused in smart, sustainable and inclusive city growth research and development. ■ Support the citizen participation policies in the smart city context. ■ Coordinate policy application efforts and applicable technologies with local, regional, national and international agents.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of interest in relation to RRI in practice ■ Stakeholders with high levels of experience in RRI
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The stakeholder has been actively involved in different innovation processes in the territory. CORE plays an important role at local and regional scale and has the capacity to further explore all the RRI principles and AIRR dimensions.
Website of the organisation	www.uab.cat/core-ciutats/

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Name of stakeholder organisation (and abbreviation): **Barcelona Institute for Global Health (ISGlobal)**	
Profile of the organisation	The Barcelona Institute for Global Health, ISGlobal, is the fruit of an innovative alliance between the "la Caixa" Foundation, academic institutions and government bodies to contribute to the efforts undertaken by the international community to address the challenges in global health. ISGlobal is a consolidated hub of excellence in research that has grown out of work first started in the world of health care by the Hospital Clínic and the Parc de Salut MAR and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the institute's Education and Policy and Global Development departments. Its ultimate goal is to help close the gaps in health disparities between and within different regions of the world.
Relevance of Responsible Research and Innovation to the stakeholder organisation	RRI is very important for the organisation, since one of its objectives is the analysis of current health issues for its ultimate transformation and the transfer of knowledge. Academia and research centres are very familiarised with RRI and they implement it as much as possible, especially ethics and science dissemination.
Relevance of RRI keys to the stakeholder organisation	The organisation has as its mission the transfer of knowledge generated by scientific research to practice. They carry out activities linked **to**

	scientific education and citizen science, aligned with two of the RRI keys: public participation and Science education, such as "The Parking Day of Barcelona" best practice.
	Likewise, they have set up regulations and committees to ensure **gender balance** and **ethics and integrity** in research in the organisation.
Relevance of AIRR dimensions to the stakeholder organisation	Since ISGlobal is a health think tank, it implements **anticipation** and **inclusiveness** though mainly in a single-directional way, from research to the public through outreach activities or projects engaging citizens. Indeed, ISGlobal obtains feedback and make their plans and studies appropriate to their needs and interests more could be done through more formal engagements, such as the inclusion of more stakeholders like firms, policy makers, civil society organisations, and setting up common working spaces and stimulating interaction amongst them.
	Reflexivity and responsiveness are addressed *de facto*, internally and externally by influencing policy-making and public administrations through studies and recommendations in a key sector like health.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	They address health, a key pillar of active ageing, with programmes dedicated to the application of scientific evidence, tools and indicators in the promotion of a sustainable and healthy urban development. Great attention is also paid to gaining knowledge of causes and risk factors of anti-microbe resistances and developing new medicines.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high level of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	ISGlobal's board comprises a mix of prestigious public and private organisations, with influence per se, that can act as a guiding lighthouse for RRI in the territory.
	Likewise, ISGlobal contribution to RRI principles and AIRR approach can be huge as it belongs to a key sector like health, with many companies, employees and important budget in the Catalan territory. Because of the COVID-19 pandemic, the society has become more aware of the necessity of keeping a strong health ecosystem that can provide quick and quality solutions to present and future challenges.
Website of the organisation	https://www.isglobal.org

■ Business

Name of stakeholder organisation (and abbreviation): **FI GROUP**	
Profile of the organisation	FI Group helps companies to get financing for innovation by obtaining funds for their research, development and technological innovation (RDI) activities. It advises its clients on how to optimise their R&D activities and boost company growth.
	They deliver services to local, regional, and public entities in the field of strategic innovation, socio-economic development, project management and EU funding.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The organisation performs research and innovation activities to be implemented in companies and public administrations, so RRI is deemed relevant to their activities.
Relevance of RRI keys to the stakeholder organisation	There is awareness of the RRI framework. Relevant RRI keys are gender equality, open access and ethics. All of them are incorporated in the modus operandi of the organisation, and they are internally supported by a code of conduct.
Relevance of AIRR dimensions to the stakeholder organisation	Diversity and non-discrimination are dealt with by the code of conduct of the organisation. These are key aspects for an international organisation like Fi which works with different cultures and opinions. In relation to reflexivity, the organisation has a performance appraisal system that includes appraisal of people from different areas. The set-up of multidisciplinary teams ("doughnut" teams) is encouraged to boost exchange, reflection and generation of new ideas.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	This organisation works on supporting the development of innovation policies in public administration. Thus, public administration in charge of innovation policies can be assessed by FI. Although FI has an indirect impact on territorial innovation policies, due to the nature of its activities outlined above can play a role in the deployment of future innovation policies.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The stakeholder can contribute to make visible RRI principles through its direct assessment of public administrations and other companies.
Website of the organisation	www.figroup.com

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Name of stakeholder organisation (and abbreviation): **Inèdit**	
Profile of the organisation	Inèdit is a strategical eco-innovation studio working towards the transition to a smart, prosperous and sustainable future. They engage with organisations of tomorrow and support them as they manage the changes that the circular economy brings.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The organisation was not very familiar with the RRI concepts, although some of them are definitely applied in their activity deployment.
Relevance of RRI keys to the stakeholder organisation	At Inèdit social and environmental responsibility are considered crucial to the innovation development. Thus, RRI keys are relevant to implementing new eco-innovation strategies.
Relevance of AIRR dimensions to the stakeholder organisation	Anticipation is crucial in order to implement innovation strategies.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (active ageing, circular economy, innovation in design, etc.)	The organisation stakeholder plays an important role on the deployment of territorial innovation policies. The business provides consultancy to different stakeholders who want to develop Circular Economy strategies. Thus, the organisation plays the important role of an advisor on the deployment of innovative practices.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high levels of influence on RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	The stakeholder has been actively involved in the consultancy for developing circular economy strategies in the territory. Thus, it has knowledge not only about the policy focus but about the region.
Website of the organisation	www.ineditinnova.com

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Name of stakeholder organisation (and abbreviation): **ADASA Sistemas S.A.U**	
Profile of the organisation	ADASA Systems is a private company dedicated to water management. It is a global leader at driving innovation in water, environmental and weather technologies. With more than 30 years' experience, they offer specialised knowledge through a wide range of sustainable, end-to-end solutions. Their testing, inspection and certification (TIC) services and data based on information about water quality and quantity contribute

	to assure sustainability and health protection[26]. They help public and private organisations around the world to solve the demands of integrated water resources management, urban water systems and water-related natural disasters.
Relevance of Responsible Research and Innovation to the stakeholder organisation	ADASA implements de facto certain aspects of RRI, despite the framework as such is unknown to them. They are open to know more possibilities and improve those keys and dimensions that are present in the organisation but not yet fully developed.
Relevance of RRI keys to the stakeholder organisation	They implement **gender equality**, company social **ethics** and isolated cases of science dissemination. Apart from a) ADASA's legal obligation to implement **gender equality**, research integrity, and b) its general **ethical** commitment to the welfare of the environment and of society which any firm dealing with strategic natural resources has to fulfil, they do not implement any other RRI key. However, they participate in projects which implement or have implemented activities of science dissemination with certain stakeholders such as public administration, research centres and other firms, such as IBATHWATER https://www.ibathwater.eu/?lang=es
Relevance of AIRR dimensions to the stakeholder organisation	Logically, anticipation, reflexivity and responsiveness are de facto implemented. These dimensions are an inherent part of the innovation process and assessment, especially in this sector, which is highly scrutinised by society and public authorities.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	Water treatment is basic for any territory and particularly in Catalonia, a region with endemic water scarcity. The firm is committed to finding sustainable solutions related to water issues. Tjsi way ADASA is contributing to support circular economy through optimising water consumption and maximizing its reuse and recycling, which affects companies operating in Sabadell and surrounding area, mainly textile firms.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholder with high level of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Water is key resource in any territory and a firm dedicated to its management can act as a role-model, thus influencing other ones to follow its example by adopting more and better sustainable measures, processes and products based on RRI principles and AIRR dimensions.
Website of the organisation	www.adasasistemas.com

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[26] https://www.adasasystems.com/en/our-purpose.html

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Name of stakeholder organisation (and abbreviation): **Barça Innovation Hub (Football Club Barcelona)**	
Profile of the organisation	Football Club Barcelona has an Innovation Hub whose objective is to form an ecosystem that fosters knowledge and innovation, based on a model that promotes a culture of excellence and collaboration with prestigious brands, universities, research centres, start-ups, entrepreneurs, students, athletes, investors and visionaries from around the world. The aim is to generate new knowledge and create new products and services, from which the athletes, partners, supporters and society in general can benefit. By detecting the innovations needs and promoting associations with relevant agents of the innovative ecosystem in the areas of health, sports, and fan engagement will be beneficial to the society as citizens can take advantage of these medical and sports innovations achieved through the club.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The organisation is not aware of RRI, however, they actually implement **inclusiveness**, **ethics** and **gender equality** as these principles are inherent in the Club's values and in the values of sports in general.
Relevance of RRI keys to the stakeholder organisation	They do not have any knowledge of the RRI thematic keys as such, however, they implement **ethics** and **gender equality** as per law. Currently, they are exploring some kind of **public engagement**, though at the moment nothing is concrete yet. **Ethics** plays a relevant role for the company, as the Club has a compliance department that takes care of ethics issues. In parallel, they have external collaborations with actors that perform their own more objective ethical evaluations. The protection of human rights and social benefits are key, and they try to incorporate the results in activity planning and organisation.
Relevance of AIRR dimensions to the stakeholder organisation	The AIRR dimension implemented is inclusiveness, due to the collaboration with the Barça Foundation, an organisation that gives support to vulnerable children and young people through sport and education on values. Inclusiveness is also indirectly addressed in their search for innovative products, services and technologies in the field of the sports medicine that can be used for the benefit of society. Likewise, a certain degree of anticipation and reflexivity is implemented when planning those activities, methodologies and programmes and their posterior analysis, also by establishing contacts and formal relationships with other stakeholders to fulfil the objectives of the hub.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy	Many studies have demonstrated the benefits of practising sports regularly for maintaining good physical and mental health. This is so also true for older people, whose special needs require adaptation of exercise routines, activities and training intensity. Sports is thus one of

focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	the pillars of active ageing, and Barça Innovation Hub is committed to finding innovative products, services or techniques related to sports medicine in order to contribute with its knowledge and long experience.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholders with high level of influence
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Sports is a key sector in promoting **gender equality**, **ethics** and **inclusiveness** in our society. FC Barcelona is one of the best football teams in the world, it is widely known and supported. It has a lot of influence, and prestige because it has one of the largest social media followings in the world. Integrating the RRI principles and the AIRR dimensions could be very useful as a role-model to be followed by other clubs or any other kind of companies.
Website of the organisation	https://barcainnovationhub.com/es/

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Name of stakeholder organisation (and abbreviation): **SEAT SA**	
Profile of the organisation	SEAT, S.A. (Sociedad Española de Automóviles de Turismo) is a Spanish automobile company founded by the National Industry Institute in 1950, a Spanish state-owned industrial holding company[27]. In 1986 the German group Volkswagen acquired a controlling stake in the company and since then SEAT belongs to Volkswagen like other well-known car companies such as Audi, Bentley, Bugatti, Ducati, Lamborghini, Porsche, Scania and Škoda. Inside its own group, SEAT has developed a group of filial companies, the SEAT Group, that provides services to the brand. SEAT is the only company designing, developing, manufacturing and commercializing their cars in Spain[28].
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework, though unknown as such, is important to SEAT, because it is committed to ethics, gender equality and transparency. It also has cooperation with public authorities and punctual contacts with citizens for testing certain solutions.
Relevance of RRI keys to the stakeholder organisation	The concept of RRI is not known, but they implement some of its keys, such as the typical **ethical** commitment of companies related to

[27] SEAT - Wikipedia
[28] https://es.wikipedia.org/wiki/SEAT

	product security, environmental protection and respect for human rights, included in its code of conduct[29]. In this context, they also organise punctual contacts with citizens for testing certain solutions, which can be regarded as an example of early-stage **inclusiveness**. Like the rest of the companies, it has implemented plans **of gender equality**, abiding by the Gender Equality Act. SEAT has regular contacts with other stakeholders such as public administrations to keep updated about the mobility plans and directives of the future, and to examine feasible solutions and agreements affecting the automobile sector.
Relevance of AIRR dimensions to the stakeholder organisation	**Anticipation, reflexivity and responsiveness** are someway *de facto* implemented when planning, designing and assessing innovative solutions and new products for the market. However, it must be considered that commercially-driven innovations give priority to economic impact and should not come into conflict with social priorities. Likewise, the usual practice it is to develop and launch the innovation product or service and to make effective adjustments afterwards, that is learning-while-doing.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	Automobile is a key sector in economy now under intense pressure by public administrations in favour of greener options, such as hydrogen-fuel cars and electric cars for contributing to sustainable mobility and reducing pollution and waste. SEAT is following that path, adapting to the new norms, and thus supporting the spirit of circular economy.
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholder with high levels of interest on RRI in practice ■ Stakeholder with high levels of power
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Likewise, SEAT is part of Volkswagen and one of the most important firms in Spain, with a lot of workers, prestige and influence, for which reason it can act as a role-model for other related or not companies or with public administrations in the territory with which it maintains high-level contacts and synergies.
Website of the organisation	www.seat.es

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[29] SEAT Código de Conducta 2020

Name of stakeholder organisation (and abbreviation): **SORIGUÉ**	
Profile of the organisation	The Sorigué group is active in the fields of water technology and engineering, construction and material, practicing circular economy with a clear bet for innovation and social return. It is one of the most important firms in this sector in Catalonia, occupying the 59th position in the sectorial sales ranking of Spanish firms. In 2018, Sorigué launched its 2020 Strategic Plan, Shared Value, which has responsible economic growth as a basic principle. Sorigué develops its business around innovation, knowledge management and sustainability.
Relevance of Responsible Research and Innovation to the stakeholder organisation	The RRI framework, though unknown as such, is important to Sorigué, because it is committed with ethics, gender equality and transparency. It also has cooperation and contracts with other stakeholders, such as like public administrations and other companies.
Relevance of RRI keys to the stakeholder organisation	The concept of RRI is unknown to Sorigué. Apart from the legal obligation regarding **gender equality** in the firm and a general **ethical** commitment with society, environment and quality, they do not implement any other RRI key. The company, though, has a channel for receiving external suggestions and ideas which can be regarded as a very basic way to implementation public involvement.
Relevance of AIRR dimensions to the stakeholder organisation	Regarding AIRR dimensions, **anticipation, reflexivity** and **responsiveness** are someway -and logically- implemented since they are an inherent part of the innovation process and assessment, especially in this field that is highly scrutinised by society and public authorities. However, it must be taken into account that commercially-driven innovations give priority to economic impact and should not be in conflict with social priorities. Likewise, the usual practice it is to develop and launch the innovation and to make effective adjustments afterwards, that is, learning-while-doing.
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Smart Specialisation (Circular economy, active ageing, design for innovation, etc.)	The construction industry sector is regarded as widely responsible for the consumption of natural resources and for environmental pollution[30], so they have a responsibility to stop the negative environmental impacts caused by the company's activities. Sorigué deals with issues like water management, construction and materials, and has a commitment to minimise environmental impact of their activities and products contributing, thus, to circular economy.

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[30] https://www.sciencedirect.com/science/article/pii/S187704281503791X

Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	■ Stakeholder with high levels of interest in relation to RRI in practice
How can stakeholder contribute to the adoption of RRI principles and the AIRR dimensions within territorial governance?	Sorigué is a powerful well-known firm in Catalonia, and can, as a role-model, influence other related or not companies. Likewise, having contracts with public administration, it can influence them in the adoption of RRI framework in their policies regarding public contracts, execution of construction works and social responsibility.
Website of the organisation	www.sorigue.com

10. Annex B. Mapped RRI good practices

10.1 Mapped RRI good practices in the Region of Western Macedonia

Good Practice: **Working Team for Coal Platform of Western Macedonia** Owner of the practice / responsible organisation or institution: Region of Western Macedonia	
About the practice (short description)	RWM is one of the 43 European regions with high dependence on solid fossil fuels. The transition to a low-carbon economy is imperative. The transition process of the region requires the formation of a transition roadmap and a mechanism/structure that in cooperation with policy-makers and social partners will co-create the strategy of transition, the projects and actions required for the implementation of energy transition in RWM.
Policy area of the practice	- Development of a stakeholder engagement strategy within the course of the post-coal transition roadmap. - Strengthen policy-making systems by involving different modes of territorial governance. - Development of a methodology aiming to a smooth and innovate transition.
Main objective of the practice	The development of a management mechanism/structure for the provision of technical support to local authorities for the preparation, monitoring and implementation of actions for the Western Macedonia transition to a low-carbon economy.
Geographical scope of the practice	Regional (Region of Western Macedonia).
Stakeholders involved	Region of Western Macedonia, Local Government Association of Western Macedonia, Municipalities of Western Macedonia, University of Western Macedonia, ANKO SA, Hellenic Government.
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Relevant to the RRI keys: public engagement and open access.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Relevant to the following AIRR dimensions: anticipation, inclusiveness, reflexivity and responsiveness.
Status of the practice	Running since 2018

Benefits of implementing the RRI practice	■ Creation of an electronic public dialogue platform for the submission of proposals by the social partners and the citizens of Western Macedonia. ■ Meetings, workshops and information events with policy-makers, institutions, social partners, businesses, etc. ■ Repository of studies - recording of good practices of already implemented projects.
Further information (link to websites, reports, press coverage)	www.pdm.gov.gr www.peddm.gov.gr https://pta.pdm.gr

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Good Practice: **DeCarb project**	
Owner of the practice / responsible organisation or institution: Regional Association of Local Governments of Western Macedonia (P6-LGA/WM)	
About the practice <u>(short description)</u>	The practice is implemented under DeCarb project, which is an Interreg Europe programme that supports public authorities to initiate efforts, join forces and exchange experiences to: a) identify growth strategies to mitigate the impact of decarbonisation, b) make the most of EU funds & financing tools and c) promote public dialogue on conflicting interests.
Policy area of the practice	1. Develop a stakeholder engagement strategy within the course of the post-coal transition roadmap. 2. Strengthen policy-making systems by involving different modes of territorial governance of the post-coal transition strategy. 3. Develop a methodology aiming to a smooth and innovative transition from the coal value chain towards an alternative development paradigm.
Main objective of the practice	DeCarb brings together nine partners (nine countries), to exchange experiences & transfer knowledge on how to transition from the carbon-intensive era towards the clean energy future. It will support regions to secure sustainable development, economic & societal stability and a role in the 2030 energy mix.
Geographical scope of the practice	**Specific European Union Countries / Regions** Bulgaria - Stara Zagora Poland - Lodzkie Region Hungary – Nyíregyháza Romania - Craiova Germany – Brandenburg Denmark - Aalborg Greece – Western Macedonia (Kozani) Slovenia - Velenje

	Spain - Badajoz
Stakeholders involved	Governance – Civil Society – Business Sector
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High relevance to the public engagement and open access keys.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High relevance to all four AIRR dimensions.
Status of the practice	Ongoing since the 1st of June 2018
Benefits of implementing the RRI practice	The main benefit from implementing the good practice will be the full adoption of the RRI keys in the region of Western Macedonia, which will be done through the development of a total post-coal transition strategy by mobilizing stakeholders from different sectors, thus including the perspectives of all actors involved (public governance, business sector, academia).

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Good Practice: **Just Development Transition Plan (JDTP) Steering Committee** Owner of the practice / responsible organisation or institution: Regional Association of Local Governments of Western Macedonia (P6-LGA/WM)	
About the practice (short description)	The practice is implemented within the Just Development Transition Plan (JDTP) project, which is an initiative taken under the development of the Special Transition Program, concerning primarily the Region of Western Macedonia in the lignite phase-out period. The JDTP Steering Committee evaluates development funds and investment proposals, which aim at: i) addressing the transition challenges, ii) mitigating the effects of unemployment and underdevelopment and iii) promoting development for the region in the long term.
Policy area of the practice	1. Develop a stakeholder engagement strategy within the course of the post-coal transition roadmap. 2. Strengthen policy-making systems involving different modes of territorial governance of the post-coal transition strategy. 3. Develop a methodology aiming to ensure a smooth and innovative transition from the coal value chain towards an alternative development paradigm.

Main objective of the practice	JDTP Steering Committee evaluates investment proposals submitted by financial and investment entities. The process of submission and pre-evaluation of the investment proposals and development plans will be performed with the systematic cooperation among the financial and investment bodies in sectors of mutual interest, in a fair and competitive environment and the appropriate, timely and sustainable preparation of the private and public sector. The proposals and plans, as far as the acceptance of funding or the adoption of regulatory or other initiatives by the State are concerned, shall be subject to the occasional procedures regarding publicity, transparency and competition. They will also be subject to the satisfaction of competition and the individual criteria and conditions governing the competent Authority, Body or Service or the investment's financial source.
Geographical scope of the practice	**Greece** 1. Region of Western Macedonia 2. Municipality of Megalopolis (located in the Region of Peloponnese)
Stakeholders involved	Governance – Civil Society – Business Sector
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High relevance to the public engagement, open access, science education and ethics keys.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High relevance to all four AIRR dimensions.
Status of the practice	Ongoing since the 21st of May 2020 (formation of the JDTP Technical Committee)
Benefits of implementing the RRI practice	Evaluating business and development proposals, the JDTP Steering Committee drastically promotes a smooth transition from a coal era to a new sustainable development framework for the participating regions. This framework includes both financial as well as environmental, ethical and societal issues, practically implementing RRI keys in the transition process for the involved regions.
Further information (link to websites, reports, press coverage)	https://www.sdam.gr/open-calls

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Good Practice: **Open courses of Entrepreneurship and Innovation**	
Owner of the practice / responsible organisation: University of Western Macedonia	
About the practice	The Laboratory of Management and Technology (MATER Lab) of the Department of Regional Development and Cross Border Studies at the University of Western Macedonia is organising the Open Courses for Entrepreneurship and Innovation every year. During those courses, stakeholders from the Region get the opportunity to participate in a mentoring process, which is a useful tool used in entrepreneurship-related education and constitutes a common practice in countries that have a tradition in business training. 22 mentors participate in order to provide guidance to students and stakeholders in the development or implementation of their innovative business idea or a project. The mentoring and training activities are carried out with the support of the Mater laboratory and the main goal is to promote entrepreneurship and innovation not only among students, but also among the population of the region. The executed projects/ideas implemented are then presented at the annual business contest, organised at the end of the year.
Policy area of the practice	Develop a methodology aiming to a smooth and innovative transition from the coal value chain towards an alternative development 'paradigm
Main objective of the practice	The main objective of the Open Courses of Entrepreneurship and Innovation initiative, is to enable students and interested parties of the Region of Western Macedonia to familiarise with the concept of entrepreneurship, as well as to be guided in the completion of a business plan.
Geographical scope of the practice	Region of Western Macedonia
Stakeholders involved	University of Western Macedonia, Municipality of Kozani, Municipality of Eordaia, ANKO, Chambers (Financial and Chamber of Commerce)
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Relevant to the public engagement, gender equality and science education keys.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Relevant to inclusiveness, reflexivity and responsiveness dimension.
Status of the practice	The initiative started in 2015 and has been organised each year since then.

Benefits of implementing the RRI practice	It aims to consolidate the efforts of the University of Western Macedonia to engage with young audiences, apart from students, who are interested in entrepreneurship through a bottom-up approach, where the beneficiaries are also the actors of change. The laboratory has created a permanent tool for providing business consulting services to young entrepreneurs in business, for the implementation of their business idea. It constitutes a positive example of a multi-stakeholder engagement: initiated by the university, the practice is implemented in close cooperation with municipal administration.
Compatibility with the planned transformative outlook	The process of transition of the Region of Western Macedonia to the post-lignite era will lead to an increase in unemployment in the area. Entrepreneurship is a key driver of employment, and the goal of Open Course action is to meet this challenge by giving young people the business acumen to be able to start their own venture.
Further information (link to websites, reports, press coverage)	https://dasta.uowm.gr/innovation/%CE%B5%CF%80%CE%B9%CE%BA%CE%BF%CE%B9%CE%BD%CF%89%CE%BD%CE%AF%CE%B1/index.html

10.2 Mapped RRI good practices in the Sofia Municipality

Good Practice: **Young Visionaries Academy** Owner of the practice / responsible organisation or institution: Sofia Municipality, Sports and Youth Activities Directorate	
About the practice	The Young Visionaries Academy is an initiative of the Sports and Youth Activities Directorate at Sofia Municipality, aimed at making **young people live, study and work on the territory of Sofia.**
	The Academy was established in 2020 in order to support young people aged 15 to 29 to develop their own projects, focused on socially significant problems, and to propose their solutions. The Academy functions as an incubator of innovative ideas from young people for the community. The programme offers to the participants mentoring from experts and practitioners in various fields, helping them to conceptualise and implement their projects. Interested participants submit their ideas to the Academy and are selected through an open call for applications.
	The best projects created within the Academy receive **funding for implementation.** Throughout the entire cycle – from project idea to implementation, dissemination and visibility, the young people are supported by their mentors and the team of the Sports and Youth Activities Directorate. The mentoring and training activities are carried out with the support of SofiaLab and Sofia Development Association.
	Five thematic areas have been identified for the participants in the Academy: **Ecology and urban environment**; **Sport and health**; **Art, culture, education and science**; **Civic and health education and media literacy; Support for disadvantaged people, risk groups, animals at risk**.
Policy area of the practice	Youth entrepreneurship, new skills, sustainable urban development
Main objective of the practice	To provide young people in Sofia with an opportunity to engage in civic initiatives, to inspire and motivate them to learn and acquire new skills in order to fulfil their potential.
Geographical scope of the practice	Sofia / Sofia Municipality
Stakeholders involved	Sports and Youth Directorate of Sofia Municipality, SofiaLab, NGOs and civil society organisations active in the thematic areas of the initiative
Relevance to RRI keys (Research ethics, Public engagement, Science	Public engagement, gender equality, science education

education, Gender equality, and Open access)	
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Inclusiveness, reflexivity, responsiveness
Status of the practice	The initiative started in 2020; the first cycle ends in the summer of 2021.
Benefits of implementing the RRI practice	The practice falls in line with the Youth Strategy 2017-2027[31] of Sofia Municipality. It aims to consolidate the efforts of Sofia Municipality to engage with young audiences, through a bottom-up approach, where the beneficiaries are also the actors of change. The Academy is a good example of a multi-stakeholder engagement: initiated by the municipal administration, the practice is implemented in close cooperation with schools and NGOs on the territory of the Sofia city.
Compatibility with the planned transformative outlook	The projects that the Academy supports focus on creating social impact by addressing the global challenges that young people face today, but localised in the context of their schools, peers, and communities. The priorities of the programme also address the goals and main objectives of strategic documents of the city in the field of education, digital transformation, and urban development.
Further information (link to websites, reports, press coverage)	https://ysoxubp3sbgbhrfgtr3xfbzfci-adv7ofecxzh2qqi-www-sofia-bg.translate.goog/youth-activities http://youthub.bg/2020/11/akademiya-za-vizioneri-april-maj-2021g-sofiya/

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Good Practice: **SofiaLab**
Owner of the practice / responsible organisation or institution: Sofia Development Association

About the practice	SofiaLab opened in September 2018, with support from the project "New Generation Skills", funded by INTERREG Danube and Sofia Municipality. Since then, over 6000 people have participated in events organised by the Lab. The primary goal of SofiaLab is to support the improvement of the digital, creative and entrepreneurial skills of young people in Sofia.

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[31] Sofia Youth Strategy 2017-2027, https://www.sofia.bg/documents/20182/448750/Strategy_young_people-SO-2017-2027.pdf/8186ee54-8135-42e0-bfa2-17dd2b281742 (in Bulgarian)

	SofiaLab is the only member of the European Network of Living Labs (ENoLL)[32] from Bulgaria (since 2019). The Living labs are defined as user-oriented, open innovation eco-systems based on co-creation – an approach that integrates research and innovation processes in real life. The Living labs are platforms driven by practical challenges that facilitate and encourage open and collaborative innovative solutions. They also provide meetings or arenas in real life where both open innovation and consumer innovation processes can be studied, experimented with, and new solutions can be developed. The Living Labs act as intermediaries for citizens, businesses and research organisations, together with local authorities, for joint value creation, rapid prototyping or validation to enhance innovative solutions.
Policy area of the practice	Youth entrepreneurship and employment, digital transition and new skills, support for innovation, sustainable urban development
Main objective of the practice	SofiaLab's philosophy is based on four main pillars of intervention: Debate, Learn, Innovate and Demonstrate, in order to develop a vibrant eco-system of learning and innovation in the city. Its objectives include: 1. To support the activities of Sofia Development Association in the implementation of Sofia RIS3 strategy. 2. To support the implementation of the Youth Strategy of Sofia Municipality. 3. To provide opportunities for policy development, testing and implementation, following the quadruple helix model. 4. To provide a forum for challenge-based learning, experimentation, co-creation and innovation in Sofia, in fields related to urban development, innovation, digital transition, and youth engagement.
Geographical scope of the practice	Although SofiaLab is involved in many international projects, it primarily aims to provide opportunities for learning and innovation to young people in Sofia Municipality.
Stakeholders involved	Quadruple helix partners: local government, public institutions, the private sector, academia, schools/universities, and civil society. Sofia Municipality, Sofia Municipal Council and the 24 districts of Sofia Municipality.
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Public engagement: SofiaLab is open to audiences from schools and educational institutions, civil society organisations, research and academia, technology and business sectors on the territory of the city. Open access: premises are open to the public, in compliance with the rules of operation of the Lab.

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[32] Founded in November 2006, the ENoLL network is constantly growing and has over 150 active members – living laboratories worldwide, including active members in 20 of the 28 EU Member States.

	Science education: most activities organised by SofiaLab or in partnership with other organisations (hackathons, game nights, competitions) support science education, digital skills development, innovative learning projects.
	Gender equality: the gender equality policy of SDA applies also to SofiaLab.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Activities organised by SofiaLab largely support the annual working programme of Sofia Development Association and Sofia Municipality. In this respect, all four aspects of AIRR are relevant to its operation. SofiaLab reports annually to Sofia Municipality (through the annual reports submitted to the municipal council by SDA).
Status of the practice	Since 2018 – to date.
Benefits of implementing the RRI practice	SofiaLab provides support to SDA and Sofia Municipality for the implementation of key priorities set in many strategic programmes and initiatives for sustainable urban development through 1) multi-actor, multi-stakeholder collaboration; 2) providing a space for sandboxing and incubation of various research and innovation actions, including at policy level; 3) facilitating partnerships with local city authorities, civil society, research/academia, and the private sector at local/national/EU level.
Compatibility with the planned transformative outlook	The activities support the implementation of the Innovation Strategy for Smart Specialisation of Sofia,[33] Sofia Youth Strategy 2017-2027 and the Strategy for Digital Transformation of Sofia[34] (adopted in 2020). All activities and projects are based on a multi-sectoral, interdisciplinary and inclusive approach. SofiaLab, with the support of Sofia Development Association, the municipal administration and civil society organisations, supports the innovation eco-system in many areas such as digital skills, digital transformation, circular economy, social entrepreneurship, etc. SofiaLab has the capacity to act as a platform for the exchange of best practices, training and support of policy and strategic visions with regard to territorial governance and development based on RRI. Thus, it contributes to the development of communities of innovation, knowledge and practice which can help transform Sofia into a smart, innovative city.
Further information (link to websites, reports, press coverage)	https://sofia-da.eu/en/ https://www.facebook.com/sofialabsda

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[33] https://www.sofia.bg/documents/20182/448750/ISIS_Sofia.pdf/f51fcd5a-2973-4679-89fe-62b3dccb6662 (in Bulgarian)
[34] https://innovativesofia.bg/en/strategies-and-policies/

Good Practice: **Expert Council on "Science, Technology and Innovation" supporting the Mayor's Office in Sofia**	
Owner of the practice / responsible organisation or institution: Sofia Municipality	
About the practice	In 2012, an Expert Council on Science, Technology and Innovation was established to support the office of the Mayor of Sofia Municipality. The council comprises representatives of universities and the Bulgarian Academy of Sciences, representatives of technological and innovation companies, the Ministry of Education and Science, and civil society organisations.
Policy area of the practice	Support for innovation, digital transition and new skills, youth employment and entrepreneurship, sustainable urban development.
Main objective of the practice	The Council supports the activities of Sofia Municipality by providing expert opinions on various urban development projects as well as for the creation of long-term visions for the city. The Council members participate in several thematic working groups in the areas of ecology, public transport, cultural and historical heritage, education and entrepreneurship. The Expert Council is based on the success of past collaborations between the municipal administration and academia: in the field of transport, the municipality is working with the Institute of Space Technology, the Bulgarian Academy of Sciences, Sofia University, the National Institute of Meteorology and Hydrology, the University of Architecture, Civil Engineering and Geodesy; in the areas of education and culture – the Cluster for Innovation and Culture, Sofia City of Knowledge, etc.
Geographical scope of the practice	Sofia Municipality
Stakeholders involved	Academia, research institutes, business, civil society
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	The Expert Council is an example of engaging key stakeholders from the research and innovation eco-system in the development and implementation of strategic plans for urban development. This is also a good example of understanding [political and policy] responsibility in RRI, and the territorial dimension of RRI in particular. This is the only municipal council of this kind in Bulgaria and it is a good practice, recognised also by the EU Parliament.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	The Expert Council working groups support the efforts of the municipality to develop evidence-based and forward-looking policies, effectively employing all of the principles of AIRR.
Status of the practice	Since 2012 – to date
Benefits of implementing the RRI practice	Through the Expert Council the Mayor's office has the support of a multi-disciplinary body, which ensures that the voices of academia and

	civil society are considered in developing and implementing policies in science and technology.
Compatibility with the planned transformative outlook[35]	The Council was instrumental in developing the first smart specialisation strategy (RIS3) for Sofia in 2015. The Council members will be invited to contribute to the transformative territorial outlook for Sofia as well.
Further information (link to websites, reports, press coverage)	https://www.sofia.bg/documents/20182/6643563/SO15-9300-369-21122015_Strategiya.pdf/f7a86a04-b106-4584-9890-cc7b5b2e8b42

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Good Practice: **Sofiaplan – Vision for Sofia 2050**
Owner of the practice / responsible organisation or institution: Sofiaplan / Sofia Municipality

About the practice	Sofiaplan is a municipal enterprise responsible for the spatial and strategic planning of Sofia Municipality. The unit has a multidisciplinary team of nearly 30 experts who work in active dialogue with various stakeholders, collect and analyse data on various aspects of urban environment and municipal development, and make policy proposals to Sofia's Municipal Council, the Mayor, District Mayors and Deputy Mayors.
	One of the key projects of Sofiaplan, described herein as a good practice, is the Vision for Sofia – a long-term strategy for the development of Sofia Municipality until 2050. During its preparation, many stakeholders were engaged through public discussions, surveys, interviews, etc. This approach has been recognised as a good practice by the Association of Bulgarian Municipalities and was recommended to other municipalities.
Policy area of the practice	Sustainable urban development (sections of the Vision also relate to digital transition and support for innovation).
Main objective of the practice	Vision for Sofia is an initiative of Sofia Municipality, aimed at creating a shared long-term strategy for the development of Sofia and suburban areas until 2050. The project proposes concrete steps, measures and objectives for the future of the city. The main thematic areas of the Vision include Urban Environment, Transport, Environment, Economy, Management, Identity, Culture and People.

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[35] The transformative outlook is one of the main documents to be developed by the RRI project: the document will represent a future-oriented strategy and action plan centred on the specific policy area/s, chosen by each of the four territorial partners in the project. Four such outlooks will be elaborated (one per territorial partner).

Geographical scope of the practice	Local – Sofia Municipality and metropolitan area
Stakeholders involved	Sofia Municipality, district administrations, civil society organisations, universities, research institutes. Representatives of various political parties, non-governmental organisations, businesses, entrepreneurs, researchers and citizens took part in the debates. Expert panels were involved in the discussions of the individual document sections. Good practices and examples from other cities and similar initiatives were considered (e.g., from Boston, Vienna, Tel Aviv, Barcelona, Copenhagen).
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Applicable RRI keys: research ethics, public engagement, gender equality, open access. The process of developing the Vision went through several steps, which engaged various stakeholders and citizens. Step 1 – Organisation of the process. Seven teams of experts, selected through a public procurement procedure, were formed to work on the Vision. Step 2 – Gathering information. Over 400 interdisciplinary meetings were held. Step 3 – Research and activation. Meetings with stakeholders – NGOs, politicians, administration, entrepreneurs, researchers and others, were organised. An information and awareness-raising campaign with posters and outdoor advertising was carried out; online and offline surveys were conducted; four public discussions „Dialogues for Sofia" were held. Step 4 – Formulating the goals. Through a series of multidisciplinary workshops, each expert team discussed the main objectives for each thematic area. As a result, a list of 69 goals and 490 measures for implementation was proposed for further expert and public consultations. These included discussions in the Sofia Municipal Council and the municipal administration, followed by 20 thematic expert meetings, attended by a total of 178 participants (50 from the administration, 52 from NGOs, 40 from business, 33 independent experts and 3 branch organisations). Parallel meetings were held with representatives of the neighbouring satellite municipalities around Sofia – mayors and municipal councillors. Step 5 – Activation. Activities comprised a series of public presentations, discussions and ranking of the proposals for the goals and measures of the Vision. Step 6 – Formulation of Vision for Sofia. All information, data, proposals, feedback was discussed and systematised. A representative

	sociological survey was conducted, polling citizens attitudes towards the proposed vision. A public Forum „Sofia: 2050" with a live broadcast on Facebook took place at the end of 2019 in order to present the document. The final presentation of the Vision was organised in December 2019, during an open exhibition „Sofia Tomorrow" in the centre of the city.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	As evidenced by the description of the planning and implementation steps above, all of the AIRR dimensions have been applied in the process.
Status of the practice	The first public discussions for Vision for Sofia were organised in 2017. In December 2019 the final report was submitted to the Chief Architect of Sofia Municipality. The Municipal Council held a plenary session for the discussion of the document in June 2020.
Benefits of implementing the RRI practice	Vision for Sofia 2050 sets the long-term goals for the development and transformation of Sofia into a smart and sustainable metropolitan city. The process of the Vision's preparation is an example of systematically applying the principles of RRI in territorial governance, based on a multi-actor, multi-stakeholder engagement plan. A significant part of the data has been digitised and organised into reproducible maps, graphs and a comprehensive library of reports, which will serve as a baseline for monitoring the progress of the Vision's implementation in the future. The Vision formulated 24 long-term goals, nearly 250 steps and 385 specific measures, which are to be translated into an action plan for the local administration. This way the Vision sets the foundation for and will encourage changes in the operations and management of the local government, based on anticipatory, responsive, reflexive, and inclusive governance procedures.
Compatibility with the planned transformative outlook	This document sets the most important priorities for the city and the municipality's planning and development concerning infrastructure and related eco-systems until 2050. It is a key document which the transformative outlook for Sofia Municipality will be built upon.
Further information (link to websites, reports, press coverage)	https://sofiaplan.bg/projects/ https://vizia.sofia.bg/vision-sofia-2050/

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Good Practice: **Research and Industry Laboratory Industry i2030 (RILAB i2030)**	
Owner of the practice / responsible organisation or institution: Bulgarian Academy of Sciences	
About the practice	The research and industry laboratory Industry i2030 (RILab i2030) was launched in May 2019 at the Bulgarian Academy of Sciences, in partnership with Sofia Municipality, Sofia Development Association and Sofia Investment Agency. It is structured in nine laboratories located at the Institute of Information and Communication Technologies (IICT – BAS) and at the Institute of Mechanics (IMech – BAS). RILab i2030 aims to integrate science, business and education in the field of digital technologies. It also offers support for joint innovation and research projects to SMEs and high-tech industries on the territory of Sofia. The Lab will help businesses to commercialise the results of research and technology transfer as well as to exploit innovative products. RILab i2030 will further provide trainings to PhD students, postgraduates, undergraduates and high school students through practical STE(A)M work and internships.
Policy area of the practice	Support for innovation, digital transition and new skills, youth employment and entrepreneurship.
Main objective of the practice	The Lab's main objective is to enable the collaboration and synergies between key actors in science, research, education and industries in the field of digital technologies. The Lab will support experimental research, joint research and innovation projects between BAS researchers, other local/national research institutes and SMEs.
Geographical scope of the practice	Local/national
Stakeholders involved	Bulgarian Academy of Sciences, Sofia Municipality. Members of the laboratory and the consortium linked to its development also include FESTO, David Holding, AMG Technology, NanoTech Lab, and SofiaLab. The companies will provide licensed software products for process simulation as well as equipment for scientific research.
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Research ethics, science education, open access, public engagement.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	All principles are applicable.
Status of the practice	Since 2019 - present

Benefits of implementing the RRI practice	RILabi2030 aims to support digital transformation and innovations, through the collaboration between science, academia and the business sector. The Lab and its members will also contribute to the implementation of Sofia's Innovation Strategy for Smart Specialisation (RIS3).
	The laboratory puts strong emphasis on education and the development of digital skills of young people. The aim is to involve more school and college students in STE(A)M, to provide them with state-of-the-art infrastructure and education to facilitate their own research and projects, and to retain young talent in Bulgaria.
Compatibility with the planned transformative outlook	The laboratory and the institutions involved will provide important feedback regarding the future priorities of the innovation and digital transformation strategies of Sofia Municipality, as well as for the update and revisions of the current RIS3. Key experts from the Lab will be invited as experts in the formulation of the transformative outlook.
Further information (link to websites, reports, press coverage)	https://rilab.bg/ https://www.imbm.bas.bg/index.php/bg_BG/home/imech-in-media https://industryinfo.bg/article/24278-otkriha-nauchno-industrialna-laboratoriia-rilab-i2030-v-ban

10.3 Mapped RRI good practices in the Municipality of Thalwil

Good Practice: composite heating system / district heating network **Owner of the practice / responsible organisation or institution: Political decision-makers at the municipal level (and later in the process: property owners)**	
About the practice (short description)	Local authorities monitor their community's installed heating systems and if it becomes apparent that all heating systems in an area, e.g. in an entire neighbourhood, where systems were built at the same time, will have to be replaced in the foreseeable future due to their lifespan coming to an end, then local authorities develop a concept beforehand (anticipatory). In the case of Thalwil, it was examined whether a heating network could be considered for a whole part of the municipality. When the feasibility was confirmed, the property owners were proactively contacted regarding the replacement of their heating systems. The new and more sustainable heating network was installed by the municipality in cooperation with the property owners.
Policy area of the practice	Energy Transition
Main objective of the practice	To promote energy transition / sustainable development through anticipatory attitude of authorities
Geographical scope of the practice	Local
Stakeholders involved	Local authorities, property owners (external experts)
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High relevance to public engagement, science education, open access.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High relevance to anticipation, as the whole best practice is made possible by the anticipatory attitude of the local authorities. Relevant also for the dimension's reflexivity and responsiveness.
Status of the practice	Running since 2017
Benefits of implementing the RRI practice	To the organisation or to the territory in which the practice was initiated.
Compatibility with the planned transformative outlook	Contribution to energy transition
Further information (link to websites, reports, press coverage)	https://www.thalwil.ch/versorgung/3447

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Good Practice: All-Round Carefree Package	
Owner of the practice / responsible organisation or institution: Energie Genossenschaft Zimmerberg (energy association Zimmerberg)	
About the practice (short description)	This practice is a model, a product, something like an all-round carefree package organised, offered in cooperation with municipalities. It unites under one roof all the different partners needed for the realization of a photovoltaic plant. The end customer has only one point of contact, namely the company offering the package, and the entire workflow runs completely online. The same service could also be created for the heating sector in order to replace fossil fuel-based heating solutions. Production takes place in local SMEs boosts regional value creation.
Policy area of the practice	Energy Transition
Main objective of the practice	To offer a product so that customers who want a sustainable energy solution can get it as easily as possible with only one single point of contact. (Ultimate goal: CO_2 reduction, energy transition)
Geographical scope of the practice	Local (Thalwil and neighbouring municipalities)
Stakeholders involved	Business (local SMEs), municipality (administration), civil society (end customer)
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Public engagement In general: no high relevance
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High relevance to AIRR dimensions in relation to the policy area.
Status of the practice	Running since 2020.
Benefits of implementing the RRI practice	Civil society: This product facilitates the instalment of sustainable energy solutions into one's home. Business: Generates value/business. Territory: It advances the energy transition and therefore helps reaching energy transition goals.
Further information (link to websites, reports, press coverage)	https://kraftwerk-zimmerberg.ch/ https://e-zimmerberg.ch/

Good Practice: "Energy City" label Owner of the practice / responsible organisation or institution: (non-profit) association "Energiestadt" (Energy City)	
About the practice (short description)	The Energy City label is a certificate of achievement for municipalities that develop and implement a sustainable municipal energy policy. Energy cities promote renewable energies and, environmentally compatible mobility and focus on the efficient use of resources.
Policy area of the practice	Energy Transition
Main objective of the practice	■ Continuous energy policy assessment - as a working, management and controlling tool - with publicity effect for the city. ■ Addressing existing concerns, related to initiatives in the area of sustainable development. ■ Implementation of the goals of the national energy plan, Energy Strategy 2050, as well as cantonal energy strategies at the municipal level as part of a sustainable, long-term process. ■ Guidance for municipalities that want to embark on the path to a low energy-consuming society and initiate corresponding measures.
Geographical scope of the practice	Certificate is awarded at the community level. Available all over Europe with the "European Energy Award". While in Switzerland it is mostly at communal level, the European certificate seems to be available at national / regional level as well.
Stakeholders involved	Municipality, National EEA Commission, Association European Energy Award AISBL, one national and one international auditor.
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Relevant to RRI keys are public engagement, science education and open access.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Relevance to the AIRR dimensions is high. Many RRI-elements are involved in the Energy City Label. The whole process is looked at including i) what resources are available, ii) where do we want to go, iii) what is the way to go there, iv) set a path, v) review and vi) reflex achievements, vii) adjust path, viii) improve further, etc.
Status of the practice	Implemented in Thalwil since 2010. The municipality is aiming for the "gold label" now, the highest possible achievement.
Benefits of implementing the RRI practice	In the Swiss context benefits include: **Energy politics**: High political acceptance, recognition on national and

	federal level, integration into higher-level energy politics
	Targeted energy and climate policy: Creates overall view of the topic energy and climate on community level. Creates awareness of possibilities and potentials. Brings continuity (beyond "waves" of four-year political legislature periods and personnel changes). It is a simple management and controlling instrument for an effect-oriented administration management. It coordinates different departments concerned and allows for targeted management and goal-oriented controlling.
	Strengthens the autonomy of the municipality.
	Improved services and communication: Energy Cities and the municipal companies align their services to meet the needs of the population, the associations and the local businesses.
	Preservation of jobs: As an environment for promising technologies ("cleantech"), an energy city promotes the competitiveness of the city and the region.
	Increasing regional value creation: Man countries, e.g., Switzerland, send billions abroad each year for fossil and nuclear energy. When focusing on energy efficiency and renewable energies, part of the money can be kept in the country and used for regional suppliers.
Further information (link to websites, reports, press coverage)	https://www.european-energy-award.org/welcome-to-the-european-energy-award (Europe) https://www.local-energy.swiss/neustart-energiestadt.html#/ (Switzerland)

10.4 Mapped RRI good practices in the City of Sabadell, Catalonia

Good Practice: **Covadonga Urban Lab**	
Owner of the practice / responsible organisation or institution: UAB (CORE Smart Cities)	
About the practice (short description)	Within the framework of the UCITYLAB project and funded by the EU programme ERASMUS+, the Autonomous University of Barcelona is developing the Covadonga Urban Lab pilot project. With this proposal, the University wants to build a new space for experimentation, co-creation and collective innovation. As an urban laboratory, it is an open space for citizens and different urban and social agents who want to collectively imagine, create, test and implement solutions to face the main social, urban and environmental challenges of the Covadonga district and the city of Sabadell in general.
Policy area of the practice	Innovation policies
Main objective of the practice	Urban Lab with the main objective of gathering the quadruple helix and working together on urban challenges and solutions cocreation.
Geographical scope of the practice	Local
Stakeholders involved	Quadruple Helix
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High
Status of the practice	Throughout the year 2020, the implementation of the Covadonga Urban Lab pilot project was carried out through different activities and events, opening the possibility for all those interested to participate. The participation process (conceptualisation) has just finished. At the moment, the executive part of the project is planned to start.
Benefits of implementing the RRI practice	City Labs have an important benefit for the territory since they implement RRI at local level and involve various stakeholders.
Further information	https://www.covadongaurbanlab.cat/

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Good Practice: **UAB OPEN LABS**	
Owner of the practice / responsible organisation or institution: UAB (CORE Smart Cities)	
About the practice (short description)	UAB Open Labs are digital innovation labs working for cohesion in the territories where they are situated. They facilitate the development of tools and strategies based on open and collaborative innovation in real life environments.
	A Living Lab is a sample bank and a place for experimentation where users can co-create innovations. Its main objective is to create new products and infrastructures, targeted at the needs of society and the respective region. It offers the spaces to develop and test technological prototypes which seek to improve the lives of the citizens. These processes involve both public and private teams.
Policy area of the practice	Innovation policies
Main objective of the practice	To create a network of open innovation ecosystems in order to boost digital innovation and to solve the social challenges of the territory.
Geographical scope of the practice	Local
Stakeholders involved	Academia (students, researchers, etc)
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High
Status of the practice	Ongoing
Benefits of implementing the RRI practice	The impacts are mainly implemented in the organisation due to fact that open labs are integrated in the University.
Further information	https://www.uab.cat/open-labs/

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Good Practice: **Ideas Generation Program**	
Owner of the practice / responsible organisation or institution: UAB Research Park	
About the practice (short description)	The Ideas Generation Program promotes the entrepreneurial spirit and the culture of innovation and supports researchers and PhD students from all academic fields of the UAB campus in the search for the best solutions to the challenges of their area of expertise.

Policy area of the practice	Innovation policies
Main objective of the practice	Each edition of the programme focuses on a concrete challenge with the objective of boosting entrepreneurship and RRI.
Geographical scope of the practice	Regional
Stakeholders involved	Quadruple helix agents to define sector-specific challenges.
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	High
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	High
Status of the practice	Since 2012, 10 programmes offered, each of them based on a different theme.
Benefits of implementing the RRI practice	The area benefits from really innovative solutions tackling important challenges through an active practice of RRI by all the quadruple helix agents.
Further information	https://www.generacioidees.cat/

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Good Practice: **Female-focused tours for primary schools** Stakeholder: Barcelona Supercomputing Center (BSC)	
About the practice (short description)	Tours of MareNostrum are offered to third and fourth-year primary school classes, aiming to explain them what supercomputers are and what they can be used for in a fun and female-focused way. These are free two-hour tours, including eight children games, demonstrating what a supercomputer is, what it is used for and who uses it, and providing some basic concepts from the world of supercomputing and computational thinking.
Policy area of the practice	Computing
Main objective of the practice	To familiarise youngsters with computing.
Geographical scope of the practice	Local

Stakeholders involved	Researchers and school students
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	This practice is about public engagement, but is also related to science education (in improving health trough a better urbanism) and gender equality (preparing eco-feminism actions).
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Low
Status of the practice	Ongoing
Further information	[Tours of MareNostrum](#)

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Good Practice: **Parking Day Barcelona** Stakeholder: ISGlobal	
About the practice (short description)	Parking Day Barcelona is a project coordinated by ISGlobal and Espai Ambiental, which connects entities related to mobility. The objective of this practice is to enhance the collaborating of these different entities in order to rethink the spaces.
Policy area of the practice	Sustainability, urban mobility
Main objective of the practice	It is a performative, awareness-raising and vindictive action, where various entities, groups and citizens temporarily transform public car parking spaces into parks, gardens or other forms of public spaces, aiming to demonstrate a model of a city, focused on people and the environment. The initiative takes place in several cities around the world.
Geographical scope of the practice	Local
Stakeholders involved	Quadruple Helix
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	This good practice is about public engagement, but is also about science education (improving health trough a better urbanism) and gender equality (preparing eco-feminism actions).
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Low

Status of the practice	Ongoing
Benefits of implementing the RRI practice	The impact of the practise is related to public participation and the collaboration of the participating entities.
Further information	https://parkingdaybcn.org/

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Good Practice: **Websites about RRI keys** Stakeholder: Universitat Autònoma de Barcelona (UAB)	
About the practice (short description)	There are several websites at UAB dealing with RRI keys, including: ■ Questions about Intellectual Property and open access at UAB; ■ Observatory for Equality at UAB; ■ Citizen Science Initiative; ■ Science education; ■ Ethics committee on animal and human experimentation.
Policy area of the practice	Research
Main objective of the practice	To provide support to students and researchers in matters related to intellectual property, open access, equality, science education and ethics, all of which affect their daily work.
Geographical scope of the practice	Local
Stakeholders involved	University students and researchers
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	The relevance to RRI keys is high as it deals with all of them.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Low
Status of the practice	Ongoing
Benefits of implementing the RRI practice	Keeping both university students and researchers well informed about key issues affecting their studies and research.
Further information	■ Questions about intellectual property and open access at UAB ■ Observatory for Equality at UAB ■ Citizen Science Initiative ■ Science education ■ Ethics committee on animal and human experimentation

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Good Practice: **Observatori Dona Empresa Economia (Observatory Woman Business Economy)**	
Stakeholder: Cambra de Comerç de Barcelona (Barcelona Chamber of Commerce)	
About the practice (short description)	The Observatory is a forum, aiming to highlight the achievements of successful women in different professions and businesses, operating in today's economic world. The Observatory originated from the recognition, made by the Chamber, that women are considered a fundamental pillar in the contemporary business, professional and economic world in general. It brings together all the actions related to provision of information, advice and financial promotion for entrepreneurs, businesswomen, managers and professionals.
Policy area of the practice	Entrepreneurship and business
Main objective of the practice	To visualise women contributions to entrepreneurship and business as well as to provide advice and information to business women.
Geographical scope of the practice	Local
Stakeholders involved	Business people
Relevance to RRI keys (Research ethics, Public engagement, Science education, Gender equality, and Open access)	Relevance to RRI is high, as it deals with gender equality.
Relevance to AIRR dimensions (Anticipation, Inclusiveness, Reflexivity and Responsiveness)	Low
Status of the practice	Ongoing
Benefits of implementing the RRI practice	Attracting more women to business sectors.
Further information	Dona Empresa Economia

11 Annex C. Questionnaires for interviewing stakeholders

11.1 RRI-LEADERS – questionnaire for in-depth interviews of stakeholders from research and academia

Main questions to respondents from academia	Prompting questions to the main questions and guidance notes to interviewers
1. What is your professional position and your responsibilities within the organisation?	
2. What is your framing/understanding/perception of responsibility, when considering responsibility in science and innovation in the context of *[name of the territory]*?	• Who are the main actors/stakeholders (organisations) in research and innovation in *[name of the territory]* (e.g., from government, businesses and business organisations, academia, civil society organisations)? • Do you have any relationships or interdependencies with them? How do you collaborate with the stakeholder organisations you just mentioned? • Please discuss drivers for responsibility in science and innovation in the context of *[name of the territory]*. • Please discuss barriers to responsibility in science and innovation in the context of *[name of the territory]*.
3. Are you aware of the Responsible Research and Innovation (RRI) policy framework of the European Commission?	If the answer to Question 3 is YES, the interviewer asks the following sub-questions: • What is your experience with/expertise in RRI? • Do you find the overall RRI framework relevant to your organisation? If yes, why/in what respect the RRI framework is relevant to your organisation?

	If the answer to Question 3 is NO, the interviewer asks the following sub-question: • How is the RRI framework comparable with other principles, provisions or strategies in your organisational policy?
4. Do you consider the thematic keys of the RRI policy framework (all keys or some of them) - relevant to the general understanding of responsibility in R&I in your organisation? Please elaborate. *4.1 To what extent do you consider that the following RRI keys have been implemented in the work of your organisation?* (1= to a very small extent, 5=to a great extent)	After the respondent answers Question 4, the interviewer asks the respondent to answer Question 4.1. Please indicate in the table the answers of the respondents (the interview will be conducted online due to COVID-19 lockdown). In case of a negative answer on implementation of some or all of the thematic keys, the interviewer takes a note that no activities have been implemented in the organisation for the corresponding key(s). After taking notes on the answers of the respondent to Question 4.1, the interviewer asks the following sub-question: • Do you consider some of the thematic keys to be of higher relevance to your organisation than others? Would you please elaborate and explain why?

Level of implementation

	1	2	3	4	5
Public engagement	☐	☐	☐	☐	☐
Open access	☐	☐	☐	☐	☐
Gender equality	☐	☐	☐	☐	☐
Ethics	☐	☐	☐	☐	☐
Science education	☐	☐	☐	☐	☐

5.1. Do you have a specific in-house policy on the thematic key: ethics / societal engagement / science education / gender equality / open access/open science? 5.2. Could you present concrete good practices in your organisation related to the thematic key ethics / societal engagement / science education / gender equality / open access/open science? 5.3. Could you elaborate on specific drivers related to the implementation of those RRI thematic keys, which are highly relevant for your organisational practices or as part of the organisation's policy? 5.4. Could you elaborate on specific barriers related to the implementation of those RRI thematic keys, which	If the answer to question 5.1 is YES, the interviewer asks the following sub-question (In case the answer to the question 5.1 is NO, the interviewer skips this sub-question): • What are the benefits to your organisation (stemming from the in-house policy)? Then the interviewer continues with questions 5.2, 5.3 and 5.4. If the answer to Question 5.2 is NO, please skip Question 5.3 and ask only Question 5.4.

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have little or no relevance in your organisational practices or as part of the organisation's policy?	
Governance of research: AIRR dimensions 6.1. Is anticipation relevant to your organisation, and if yes – could you please elaborate more and explain why? Could you present some good practices related to anticipation? 6.2. How important is inclusiveness to your organisation? Would you please elaborate more and explain why? Could you share how you involve and integrate in your research agenda the views and ideas of a variety of social actors, including lay citizens? 6.3. What is the role of reflexivity in your organisation? Could you tell us in more detail about your practices, procedures, and policies for ensuring a critical self-reflection? 6.4. How is responsiveness relevant to and practiced in your organisation/research and innovation policy of your territory? Could you tell us about some good practices related to responsiveness?	
7.1. In terms of the *[policy area]* in *[name of the territory]*, what are the key change factors, i.e., the most important leverage points, to initiate a political and societal change process in the *[name of the territory]*? 7.2. Who are the key stakeholders (organisations) in the *[name of the territory]* that can influence these aforementioned leverage points in order to initiate a political and societal transformation process? / Which stakeholders (organisations) would need to be involved in order to be able to influence the aforementioned leverage points? 7.3. Could you please recommend other stakeholder representatives (persons) from *[name of the territory]* and from the stakeholder organisations who could be invited to participate in the future activities of the RRI-LEADERS project (focus group, participatory workshop, etc.)?	

11.2 RRI-LEADERS – questionnaire for in-depth interviews of policy makers and representatives of civil society organisations (CSOs)

Main questions to respondents from academia	Prompting questions to the main questions and guidance notes to interviewers
1. What is your professional position and your responsibilities within the organisation?	
2. What is your framing/understanding/perception of responsibility, when you talk about *[policy area]* in the context of *[name of the territory]*?	• Who are the main actors/stakeholders in the *[policy area]* in *[name of the territory]* (e.g., from government – local/regional/national, businesses and business organisations, academia, civil society organisations)? • Do you have any relationships or interdependencies with them? How do you collaborate with the stakeholder organisations you just mentioned? • What are the main concerns associated/related with responsibility in the *[policy area]* in the context of *[name of the territory]*? • Please discuss drivers for responsibility in *[policy area]* in the context of *[name of the territory]*. • Please discuss barriers to responsibility in *[policy area]* in the context of *[name of the territory]*
3. Are you aware of the Responsible Research and Innovation (RRI) policy framework of the European Commission?	If the answer to Question 3 is YES, the interviewer asks the following sub-questions: • How does the RRI policy framework relate to the *[policy area]* of *[name of the territory]*? Please elaborate why/in what respect the RRI framework is relevant to the *[policy area]*? In both cases – the answer is YES or the answer is NO to Question 3 – the interviewer asks the following sub-question:

	• How is the RRI framework comparable with other principles, provisions or strategies in the *[policy area]* of *[name of the territory]*?
4. Based on your knowledge and experience in *[policy area]*, do you consider the RRI thematic keys (all keys or some of them) - relevant to the *[policy area]* of your territory? Please elaborate.	The interviewer asks the following sub-questions:
4.1. Please indicate in the table below the degree of relevance of the thematic keys of the RRI framework to the [*policy area*]in the context of *[name of the territory]*.	• Would you please elaborate and explain why you think research ethics / public engagement / science education / gender equality / open access are relevant or highly relevant to *[policy area]*?
	• In your opinion, could those RRI keys [research ethics / public engagement / science education / gender equality / open access] that you perceive as relevant or highly relevant to *[policy area]* be considered a driver for development and implementation of policies in this area? If yes – how?
	• Can any of the RRI keys be considered a barrier for the development and implementation of policies in *[policy area]*? If yes – why and how?
	• Are there specific documents, provisions, practices, projects, measures, strategies in the *[policy area]* which could be related to one or more of the thematic keys? Please elaborate.
Governance of [policy area] - AIRR dimensions	
5.1. Is *anticipation* relevant to the *[policy area]*, and if yes – could you please elaborate more and explain why? Could you present some good practices related to anticipation in the *[policy area]*?	
5.2. How important is inclusiveness for the *[policy area]*? Would you please elaborate more and explain why? Could you share how you involve and	

Relevance of RRI thematic keys to the chosen [*policy area*]?

(1= strongly disagree 2 – disagree, 3 - undecided, 4 – agree, 5 – strongly agree)

	1	2	3	4	5
Public engagement	☐	☐	☐	☐	☐
Open access	☐	☐	☐	☐	☐
Gender equality	☐	☐	☐	☐	☐
Ethics	☐	☐	☐	☐	☐
Science education	☐	☐	☐	☐	☐

integrate in your policy agenda the views and ideas of a variety of social actors, including lay *citizens*? 5.3. What is the *role* of reflexivity in the *[policy area]*? Could you tell us in more detail about your practices, procedures, and policies for ensuring a critical self-reflection? 5.4. How is *responsiveness* relevant to and practiced in the *[policy area]* of your territory? Could you tell us about some good practices related to responsiveness?	
6.1. In terms of the *[policy area]* in *[name of the territory]*, what are the key change factors, i.e., the most important leverage points, to initiate a political and societal change process in the *[name of the territory]*? 6.2. Who are the key stakeholders (organisations) in the *[name of the territory]* that can influence these aforementioned leverage points in order to initiate a political and societal transformation process? / Which stakeholders (organisations) would need to be involved in order to be able to influence the aforementioned leverage points? 6.3. Could you please recommend other stakeholder representatives (persons) from *[name of the territory]* who could be invited to participate in the future activities of the RRI-LEADERS project (focus group, participatory workshop, etc.)?	

11.3 RRI-LEADERS – questionnaire for in-depth interviews of business stakeholders[36]

TABLE A: Main questions to respondents from business	Prompting questions to the main questions and guidance notes to interviewers
1. What is your professional position and your responsibilities within the company?	
2. Does your company perform research and/or innovation activities?	• Do you have an in-house department, or a team tasked with research and innovation? • Would you briefly present your innovation strategy? • Do you perceive your company as a market leader or you perceive it as being more reactive?
3. Do societal challenges affect your business and if yes, how do you (plan to) mitigate/address these challenges? Please elaborate.	
4. What is your understanding/perception of responsibility, when considering responsibility in (research and) innovation in your business area?	

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[36] The questionnaire for in-depth interviews of business stakeholders capitalises on the experience and publications of the following projects:

- **RRI-Practice** project, Responsible Research and Innovation in Practice, financed by the European Union's Horizon 2020 Research and Innovation Programme, under Grant Agreement no 709637, implemented in the period September 2016 - August 2019; www.rri-practice.eu

- **SATORI** project, Stakeholders acting Together On the ethical impact assessment of Research and Innovation, financed by the European Union's Horizon 2020 Research and Innovation Programme, under Grant Agreement no 612231, https://satoriproject.eu/

- **KARIM** project, Knowledge Acceleration and Responsible Innovation Meta-network, co-financed by the INTERREG IV B programme of the European Union; "A Guide to Responsible Innovation Criteria: a guide to entrepreneurs and innovation support organisations", https://www.nweurope.eu/media/1118/guide_online.pdf

As well as the article:

- Gurzawska, A. *Responsible Innovation in Business: Perceptions, Evaluation Practices and Lessons Learnt*. Sustainability 2021, 13, 1826. https://doi.org/10.3390/su13041826

5. How do you perceive responsible innovation in your company?	• Could you provide examples of how your company acts responsibly?
6. Are you aware of the Responsible Research and Innovation (RRI) policy framework of the European Commission? If YES, what is your experience/expertise with RRI?	If the answer to Question 6 is YES, the interviewer continues with question 7 and follows the next questions in this table. If the answer to Question 6 is NO, the interviewer skips all questions below and goes to the next table to continue with the interview.
7. Based on your experience in R&I, which thematic keys of the RRI framework (all keys or some of them: public engagement, open access, ethics, gender balance and science education) you consider relevant to your overall business and innovation strategy?	• Why do you consider them relevant to your business and innovation strategy?
8. Do you have a specific in-house policy on the thematic keys you just mentioned? Please elaborate. 8.1 Could you present concrete good practices in your company related to the thematic keys: ethics / public engagement / science education / gender equality / open access? 8.2 Could you elaborate on specific drivers related to the implementation of the RRI thematic keys, which are highly relevant for your business practices or as part of the innovation strategy? 8.3 Could you elaborate on specific barriers related to the implementation of those RRI thematic keys, which have little or no relevance in your business practices or as part of the innovation strategy?	
9. Governance of innovation: AIRR dimensions 9.1 Is anticipation relevant for your company, and if yes – could you please elaborate more and explain why? Could you present some good practices related to anticipation? 9.2 How important is inclusiveness for your business/innovation strategy? Would you please elaborate more and explain why? Could you share how you involve and integrate in your business/innovation the views and ideas of internal and external stakeholders?	

9.3 What is the role of reflexivity in your company? Could you tell us in more detail about your practices, procedures, and policies for ensuring a critical self-reflection?
9.4 How is responsiveness relevant for and practiced in your company? Could you tell us about some good practices related to responsiveness?

10.	In terms of the [*policy area*] in [*name of the territory*], what are the key change factors, i.e., the most important leverage points, to initiate a political and societal change process in the [*name of the territory*]?
11.	Who are the key stakeholders (organisations) in the [*name of the territory*] that can influence these aforementioned leverage points in order to initiate a political and societal transformation process? / Which stakeholders (organisations) need to be involved in order to be able to influence the aforementioned leverage points?
12.	Could you please recommend other stakeholder representatives (persons) from [*name of the territory*] and from the stakeholder organisations (from Question 11) who could be invited to participate in the future activities of the RRI-LEADERS project (focus group, participatory workshop, etc.)?

If the answer to Question 6 in the above Table A is NO, please follow the questions below:

TABLE B: Main questions to respondents from business	Prompting questions to the main questions and guidance notes to interviewers
6. Are you aware of the Responsible Research and Innovation (RRI) policy framework of the European Commission?	If the answer is NO, please continue with the following questions?
7. Do you consider the thematic keys of the RRI framework (all keys or some of them: public engagement, open access, ethics, gender balance and science education) relevant to your overall business and innovation strategy?	• Why do you consider them relevant to your business and innovation strategy?
8. Do you engage with internal (your company staff) and external stakeholders?	• Do you take into consideration what you learn from your internal and external stakeholders and how do you

	integrate their ideas into your business/innovation strategy?
9. Which are the most important/pressing ethical issues in your company's activities?	• Do you perform internal ethical assessment? • If yes to the above question, which are the guiding ethical values which you use in the ethical assessment? Please elaborate.
10. Can you describe how you evaluate the possible future impacts of your innovations?	
11. What is the company's policy, if any, for corporate social responsibility (CSR)?	• Does CSR strategy address issues related to the impact of your company's research and innovation on society? Please elaborate.
12. In terms of the *[policy area]* in *[name of the territory]*, what are the key change factors, i.e., the most important leverage points, to initiate a political and societal change process in the *[name of the territory]*? 13. Who are the key stakeholders (organisations) in the [the territory] that can influence these aforementioned leverage points in order to initiate a political and societal transformation process? / Which stakeholders (organisations) would need to be involved in order to be able to influence the aforementioned leverage points? 14. Could you please recommend other stakeholder representatives(persons) from *[name of the territory]* who could be invited to participate in the future activities of the RRI-LEADERS project (focus group, participatory workshop, etc.)?	