



RESPONSIBLE
RESEARCH AND
INNOVATION IN
TERRITORIES

Mapping Report for the Region of Western Macedonia

Adapted extract from the original deliverable 2.1

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



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Important note: This document is an adapted extract from deliverable 2.1 "Map on stakeholder relationships and interdependencies and report on stakeholder need, interest, power and influence", published in June 2021 <https://www.rri-leaders.eu/wp-content/uploads/2021/07/D2.1-Map-on-Stakeholder-Relationships.pdf>

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Mapping Report for the Region of Western Macedonia

Region of Western Macedonia: introduction and policy focus

Western Macedonia Region, Greece



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



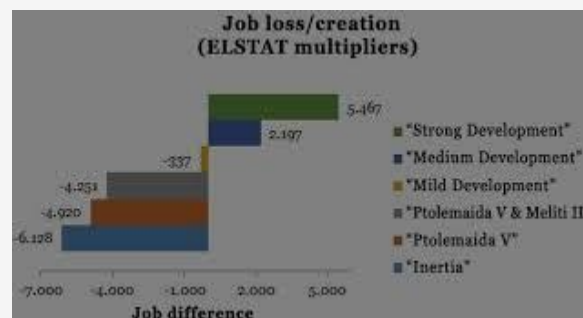
electricity generation. With a permanent population of 282,120 inhabitants, as per 2011 Census data, it is sparsely populated with 30 inhabitants/km² vis-à-vis the national average density of 81.75. The analysis of demographic data highlights the trend of population decline and population ageing.

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.

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.

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)



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- 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



Annex Mapped RRI stakeholders

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:	<p>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.)</p> <p>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.</p> <p>In the context of this action, the relevance of the RRI principles to the RIS Unit is significant.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>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.</p> <p>Gender equality is sufficiently ensured based on the operation of the Unit as one of the main Units of the Regional Authority structure.</p> <p>Ethics is largely implemented based on public sector rules and regulations as well as on European regulations.</p> <p>Science education is implemented at a moderate level in the Regional Authority. However, it can be further strengthened based on the</p>



	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.	<p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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	<p>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.</p> <p>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.</p>
Relevance of Responsible Research and Innovation to the stakeholder organisation:	<p>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.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>Gender equality and ethics are also ensured through the competent authorities and committees of the Greek State and according to the relevant legal framework.</p> <p>Science education exists through the direct cooperation of RWM with academic and scientific bodies of the Region.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p>

	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>Through a wide array of actions, and mainly sustainable development investments, the RWM is moving towards a comprehensive restructuring of the economic productivity model.</p> <p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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/

Name of stakeholder organisation (and abbreviation): Regional Development Fund (RDF)	
Profile of the organisation	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Among its responsibilities are:</p> <ul style="list-style-type: none"> • 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:	<p>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.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>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.</p> <p>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</p>



	<p>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.</p> <p>Gender equality is considered to be largely followed in the organisation and in practice in the participations in RDF actions.</p> <p>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.</p> <p>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.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>

	<p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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?	<p>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.</p>
Website of the organisation	https://pta.pdm.gr/



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.	<p>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.</p> <p>Open access is ensured to a significant extent in both the participations and the activities of the company.</p> <p>Gender equality is important for the company on all levels and ensured</p> <p>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.</p> <p>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.</p> <p>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.</p>

Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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?	<p>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.</p>
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.	<p>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.</p> <p>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.</p> <p>Gender equality is placed high for the Agency which strives to ensure equal participation and treatment of the sexes in its operation and action.</p> <p>Ethics is applied in accordance with the code of ethics legislation, especially as it relates to public procurement. All actions to be taken,</p>



	<p>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.</p> <p>Science education needs to be improved, and the company's cooperation with the University and CERTH can be of further assistance in that respect.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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,</p>

	<p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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?	<p>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 pursues 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.</p>
Website of the organisation	<p>http://www.anko.gr/</p>

■ 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.	<p>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.</p> <p>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.</p> <p>Gender equality is something that exists with the operation of the related committee of the University that contributes substantially.</p> <p>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.</p> <p>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.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>Anticipation is considered to be applied partially satisfactorily but not in a structural way.</p> <p>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.</p>



	<p>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.</p> <p>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,</p> <p>There is a central cooperation with the institutions, and cooperation agreements have been signed with the regional authority.</p>
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.	<ul style="list-style-type: none"> ■ 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?	<p>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.</p> <p>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.</p> <p>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</p>

	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/

Name of stakeholder organisation (and abbreviation): Department of Mechanical Engineering at the University of Western Macedonia (DME/UOWM)	
Profile of the organisation	<p>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.</p> <p>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.</p>
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.	<p>Public commitment is an integral part of any academic and research activity of the Department. It is expressed in any decision and any procedure.</p> <p>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.</p> <p>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.</p> <p>Science education is a matter of great dedication. Research results should have a great impact and an environmental footprint, should</p>



	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.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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/

Name of stakeholder organisation (and abbreviation): **Department of Electrical and Computer Engineering (ECE) at the University of Western Macedonia (UOWM)**

Profile of the organisation	<p>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.</p> <p>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.</p> <p>More specifically, the ECE Department promotes and cultivates knowledge in the following subjects:</p> <ul style="list-style-type: none"> • Computer Science • Software and Systems Technologies • Electronics and Electrical Signals, Telecommunications and Networks • Energy
Relevance of Responsible Research and Innovation to the stakeholder organisation:	<p>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.</p> <p>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.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>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.</p>



	<p>Open access is ensured by relevant announcements, publications of research results and of course by publications in official journals.</p> <p>Gender equality is ensured both through the competent committee of the University and through the research regulations and European programmes.</p> <p>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.</p> <p>Science education is essential as it is provided through every activity of the Department at academic and research level.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>Inclusiveness is of great importance and is applied exclusively by the Department in its extensive collaborations with local bodies and research centres.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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/

Name of stakeholder organisation (and abbreviation): National Centre for Research and Technological Development (CERTH)	
Profile of the organisation	<p>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 Agrotechnology Mechatronics, Agrotechnology, Biomedicine, Kinesiology.</p>
Relevance of Responsible Research and Innovation to the stakeholder organisation:	<p>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.</p> <p>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.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>Public engagement and open access: are very important for CERTH. The research centre maintains strong partnerships with important</p>



	<p>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.</p> <p>CERTH continues (by the General Secretariat for Research and Innovation (GGEK)) to operate as a National Contact Point for Marie Skłodowska-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.</p> <p>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.</p> <p>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".</p> <p>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.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>Anticipation 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.</p> <p>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.</p> <p>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</p>

	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.	<ul style="list-style-type: none"> ■ 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.	<p>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.</p> <p>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.</p> <p>Gender equality is considered to be largely ensured at all scales of the company's actions and activities.</p> <p>Ethics is particularly strengthened on the basis of the Code of Ethics and the wider institutional framework of regulations governing its operation.</p> <p>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.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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</p>

	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.	<ul style="list-style-type: none"> ■ 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

Name of stakeholder organisation (and abbreviation): Cluster of Bioeconomy and Environment of Western Macedonia CluBE	
Profile of the organisation	<p>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.</p> <p>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.</p>



	<p>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.</p> <p>More specifically, the initial strategic objectives of the Cluster include:</p> <ul style="list-style-type: none"> ■ 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.	<p>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.</p> <p>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.</p> <p>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.</p> <p>Gender equality: A lot of emphasis is being placed on gender balance.</p> <p>Ethics: The most important ethical concerns are related to making research and innovation results public.</p> <p>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.</p>

	<p>in the most focused laboratory research but in the softer parts of the research.</p> <p>They have the part of formal and non-formal scientific education aimed at and essentially through both European and research programmes.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus: Energy transition	<p>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.</p> <p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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

Name of stakeholder organisation (and abbreviation): BELLIS SA	
Profile of the organisation	<p>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.</p> <p>They adhere to traditional production but also demonstrate adaptability to new market data with a wide variety of products.</p> <p>The company is ranked as one of the largest companies in the wider area of Macedonia and Northern Greece.</p> <p>The scope of their collaborations extends to Northern and Southern Greece as well as to many islands of the country.</p>
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.	<p>Public engagement: strict rules are followed mainly in the production and control process and on the basis of national rules.</p> <p>Open access: is already sought in the actions of the company through websites and social media.</p> <p>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.</p> <p>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.</p> <p>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.</p>



	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 anticipation 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/

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



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	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.	<p>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.</p> <p>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.</p>
Relevance of RRI keys to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>Gender equality is applied in the company through their code of conduct which refers to gender equality and non-discrimination of nationalities.</p> <p>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.</p> <p>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</p>
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

	<p>in the company so that good solutions emerge in order to achieve optimal results.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p>
Relevance of the stakeholder organisation to the objectives of RRI-LEADERS.	<ul style="list-style-type: none"> ■ 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?	<p>The company's priority is high-quality, safe and innovative products through intense cooperation with universities, research laboratories, agronomists, organisations and agricultural cooperatives.</p>
Website of the organisation.	<p>http://bagatzounis.com/info/</p>



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Name of stakeholder organisation (and abbreviation): ETHELEO LP	
Profile of the organisation	<p>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.</p> <p>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.</p>
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.	<p>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.</p> <p>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.</p> <p>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.</p> <p>The company is in the process of taking the necessary steps to further develop public engagement.</p> <p>Ethics is ensured by following strict rules in production so that they can have the appropriate certification for the company's products,</p>

	<p>and also in the uses of items, packaging, etc. to ensure the ethics of environmental protection.</p> <p>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.</p> <p>Tests are also performed in the chemistry laboratory integrated in the company, which also deals with tests in innovative products.</p> <p>Also, participations in clusters are already underway.</p>
Relevance of AIRR dimensions to the stakeholder organisation.	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Importance / role of the stakeholder organisation within the territory in the context of the chosen policy focus.	<p>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.</p> <p>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</p>

	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.	<ul style="list-style-type: none"> ■ 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?	<p>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.</p> <p>They seek cooperation with the local community to make the products and production processes widely known.</p>
Website of the organisation	https://etheleo.gr/en/

Name of stakeholder organisation (and abbreviation): B&T COMPOSITES, Tiriakidis Vasileios ABETE (Anonymous Industrial Commercial Technical Company)	
Profile of the organisation	<p>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.</p> <p>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.</p>
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.



	<p>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.</p>
Relevance of RRI keys to the stakeholder organisation	<p>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.</p> <p>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.</p> <p>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.</p> <p>Additionally, the company is committed to deliverables-based schedules of mainly the research and scientific programmes in which it participates.</p> <p>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.</p> <p>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.</p>
Relevance of AIRR (anticipation-inclusion-reflexivity-responsiveness) dimensions to the stakeholder organisation	<p>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.</p>

	<p>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.</p> <p>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.</p>
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.	<ul style="list-style-type: none"> ■ 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/

Annex Mapped RRI good practices

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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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

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 (short description)	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	<ol style="list-style-type: none"> 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 1 st 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).

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 <u>(short description)</u>	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 21 st 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.sdiam.gr/open-calls



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.



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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 plan 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