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MARIE
MAinstreaming Responsible Innovation in
European S3
Enterprise Survey

**Authors: Eleni Apospori, Christos S. Tsanos, Louiza
Paraskevopoulou (AUEB-RC/BCLab)**

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1 Introduction

This report presents the final, cumulative results of the analysis of the data collected by partners of the Interreg Europe project MARIE during the Enterprise Survey.

Within MARIE, partners from 8 European regions work together to improve regional public policy that supports delivery of Responsible Research and Innovation (RRI) to enterprises' product, process and service design, production and distribution. The Enterprise Survey is a key part of this work. It was designed to get feedback from the ground: from the enterprises that can and must driver Responsible Innovation and that represent the beneficiaries of public policy for research, development and innovation. Only by understanding the needs and the strengths of the regional enterprise fabric, can we make relevant improvements to policy.

The results reported herein have been compiled from the results of the analysis of data collected from 23 questionnaires, reporting an equal number of RRI Good Practices (GPs). In the context of the Enterprise Survey, a GP was understood as an example of responsibility within the enterprise's innovation chain that the enterprise felt had made a significant impact on their organisation and on its performance.

The questionnaires were completed by companies / organisations that operate in 8 partner regions of the MARIE project (Emilia Romagna, Attica, Tampere, Southern Ireland, Bucharest-Ilfov, Galicia, Schleswig-Holstein, Centre-Val de Loire) through interviews with the GP owners.

The remainder of this report is structured as follows. Section 2 presents the methodological approach for conducting the Enterprise Survey exercise and the data analysis. Subsequent sections follow the questionnaire structure as follows:

- Section 3: Description of Good Practice
- Section 4: Linkage of GP with RRI
- Section 5: Results and Impact
- Section 6: Factors Affecting the Implementation of the GP
- Section 7: RRI in the Company.

Finally, Section 8 recapitulates the most important findings of the analysis.

2 Methodological Approach

The data set of this study consists of 23 structured interviews performed and delivered by 8 project partners representing the above listed regions from 8 countries (Greece, Italy, France, Romania, Ireland, Finland, Spain, Germany).

Participating companies / organisations were selected according to the following criteria:

- Operate in a Smart Specialisation (S3) sector in each Region.

- Have demonstrated prior experience with RRI (e.g., through their participation in exchange platforms, research projects, open innovation structures, etc.)
- Ideally, but not mandatorily, the companies / organisations should fall within the size category of SME.

The survey instrument developed by AUEB-RC for the data collection consisted of 8 sections and was accompanied by the associated interview protocol (Harrell and Bradley, 2009):

- Section 1: General Information on the GP (to be completed by the interviewer before the interview)
- Section 2: Respondent and Company Information
- Section 3: RRI in the Company
- Section 4: Description of Good Practice
- Section 5: Linkage of GP with RRI
- Section 6: Results and Impact
- Section 7: Factors Affecting the Implementation of the GP
- Section 8: Factors Affecting the Implementation of RRI in your Company
- Section 9: Other Comments

All interviews were conducted between September 2017 and March 2018; some were audio recorded while for others notes were taken during the interviews. The majority of interviews were conducted in person while few took place through Skype or telephone. In all cases, the interviewee was the CEO, the founder, a manager or an expert closely related with the described Good Practice. Anonymity and confidentiality was reassured.

The data analysis followed the rules of content analysis (Weber, 1985) and was conducted in two phases: in the first phase, according to the content analysis, a coding scheme was created by the AUEB-RC team and was sent to all partners. Partners performed the interviews with companies / organisations, completed the coding scheme with the requested information from the interviews and provided the completed coding schemes to the AUEB-RC team. At the second phase the AUEB-RC team analysed the coding schemes.

The final results and conclusions presented in this report are the outcome of this activity.

3 Description of Good Practice

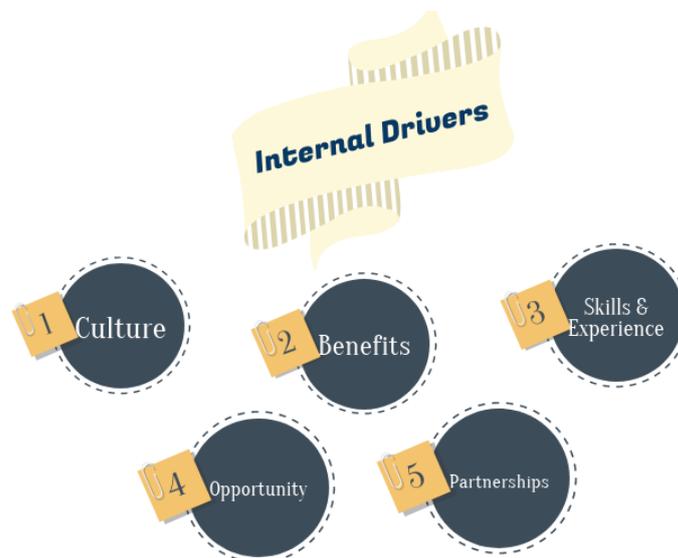
In this section, the results of the analysis related to the GPs' stated objectives and their level of achievement, the drivers towards their development, the stakeholders involved, the beneficiaries from their implementation, and the resources required.

3.1 Factors driving the development of the GP

In this subsection, the results on the motivation for developing the GPs are described; in other words, the drivers, both internal to the company and from the external environment that led to their conception and development.

The drivers identified in our analysis are divided in two categories: internal and external:

- **Internal drivers** refer to factors within the company that act as catalysts in favour of the undertaken GP. These are:
 - The company's organisational culture, which is rooted on RRI.
 - The provision of benefits a) to certain stakeholders / end users (by addressing a real need of theirs) and b) to society at large ("doing good" to society).
 - The existence of skilled / experienced founders, i.e., the fact that the originators of the GP idea actually had the skills and expertise to further develop it.
 - The presence of a business opportunity that can be taken advantage of and lead to business benefits for the company (e.g., improve product offering, increase staff retention, improve in-house research)
 - The existence of partnerships / networks of partners and the wish of the companies / organisations to further extend them



- **External drivers** refer to external factors that may trigger a RRI project such as external funding, technological trends or a business opportunity. These are:
 - The existence of external incentives (e.g., availability of funding) and obligations.
 - The potential for improving the business success of the company through achieving competitive advantage

- The existence of a technological trend that the company wants to take advantage of (e.g., cybersecurity, technology in education, shift from paper-based to electronic management systems).



3.2 Stakeholders involved in the GP

In this subsection, the results of the stakeholders involved in the GP are presented. The identified stakeholders can be categorised in two classes: internal and external. **Internal stakeholders** include the company and its staff / team involved in the GP. **External stakeholders** include end users / customers, funding agencies / sources, academic / research institutions and organisations (e.g., universities, research centres), civil society organisations (e.g., NGOs, civil associations, solidarity organisations), external experts providing their know-how in various topic, the local community (people, organisations, companies, local structures, city), the government and public authorities, and other business partners.

3.3 Beneficiaries from GP implementation

In this subsection, the results on the main beneficiaries from the implementation of the GP are presented. The results show that beneficiaries are categorised in two groups: those who benefit financially from the development, implementation and commercialisation of the GP, and those who benefit from the consumption / use of the GP output(s).

In the first category, **the company / organisation** which develops and implements the GP is the main beneficiary. Within the company / organisation, more detailed subcategories of stakeholders have been identified: funders / shareholders and employees / staff.

In the second category, the beneficiaries may include:

- i) **end users / customers** of the GP output;

- ii) the **broader society**, including the general public (e.g., increase in the level of personal data protection), on specific elements or institutions of the broader society (e.g., public health system) or even the natural environment;
- iii) the **research community** (individual researchers or research institutes / universities), thus justifying the “research” part in RRI, and;
- iv) the **local community**.

3.4 GP objectives and their achievement

In this subsection the results on the question if the GP reached its objectives and met the challenges for which it was intended.

At the outset, the objectives of the GPs were twofold:

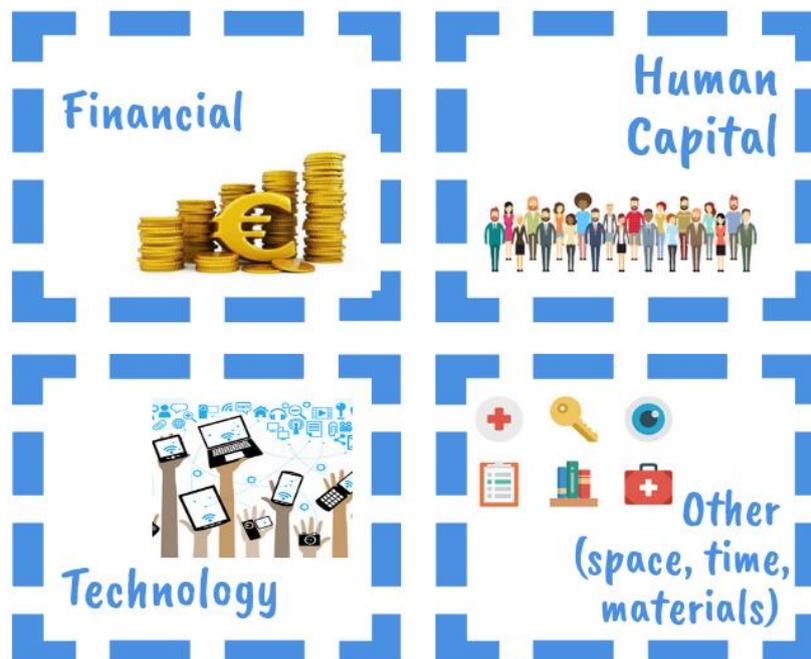
- i) **higher-level objectives**, referring to broad, optimistic, ambitious and challenging goals which are usually long-term and may include the introduction of a new business paradigm, increase of public awareness, achieving full coverage of a country, improvement the quality of life of end users etc;
- ii) **lower-level objectives**, referring to more realistic, pragmatic, medium-term goals related with the direct impact of the GP. Such objectives may include the provision of a specific benefit to end users, developing academic / scientific knowledge, or providing a business benefit / competitive advantage to the company.

Most of the lower-level objectives were met, apart from the cases that the project is still ongoing, whereas most of the higher-level objectives were not met, not because of failure of the GP to do so but due to the need for more time for the GP to realise these objectives.

3.5 Resources required for implementing the GP

In this subsection the results on the categories of resources required for setting up and implementing the GPs are presented. The results of the analysis indicate that the resources required for setting up and implementing the GPs were categorised as:

- iii) **financial** (internal or external funding);
- iv) **human**, referring to the human capital (internal company team, local people, experts);
- v) **technological**, referring both to the availability of technological equipment and technical know-how, and;
- vi) **other** such as space (offices), time and raw materials.



4 Linkage of GP with RRI

In this section, the results of the analysis on the linkage of the GP with the five basic RRI thematic elements and the MARIE support actions, as well as stakeholder engagement and transparency within the GP, are presented.

4.1 Linkage of GP with RRI thematic elements

In this subsection, the results on the incorporation of the five main thematic elements of RRI in the GPs are presented.

Public engagement is the most frequently encountered thematic element (**18/23 cases**). The categories of factors addressed in this thematic element cover the entire facet of public participants, i.e., end users / beneficiaries, local community, stakeholders (which vary substantially with each particular GP) and the public.

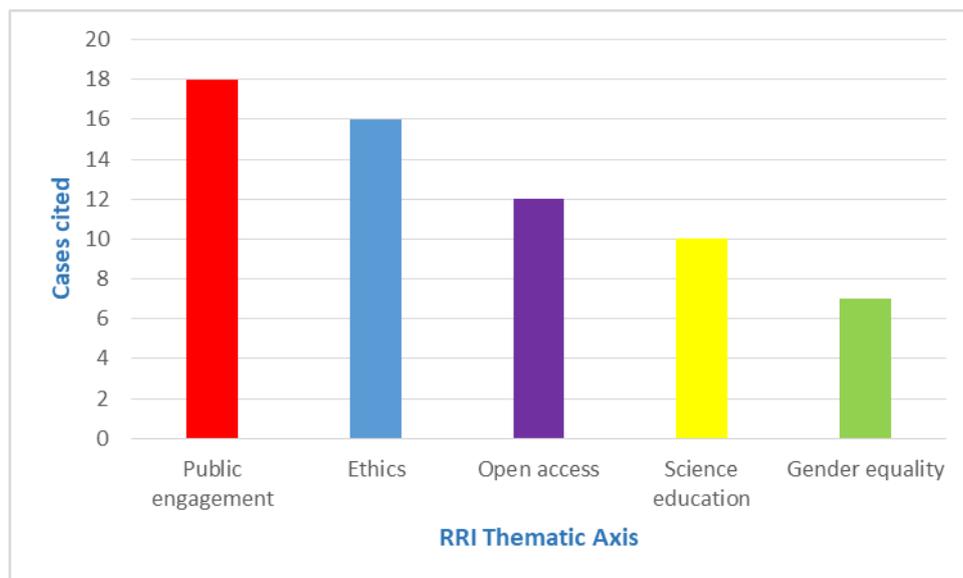
Ethics is present in **16/23 cases** the second most frequent thematic element present in the GPs. Its presence is demonstrated as:

- An inherent characteristic in the operations of the company / organisation.
- The need for the protection of data and privacy of end users, a factor which was brought up frequently by the respondents.
- The need for compliance with legal requirements with respect to ensuring responsibility and sustainability of the end product / service.

Open access is present in **12/23 cases**, in the form of open access to the innovation processes, data and results (e.g., scientific research, publications etc.) or even the actual product (e.g., software developed and distributed as open access), open innovation and open public events showcasing the results of the innovation process.

Science education is present in **10/23 cases**, in the form of increased inclusion of students, schools, universities and other educational organisations either as GP partners or as recipients of the end product / service, which may involve scientific education of some kind (e.g., the education of students on sustainable agriculture methods in Case 1 of Greece, on robotics in Case 2 of Italy), the organisation of educational workshops for disseminating GP results, and the sponsorship of educational programs either through the revenues of the GP or through the company's own funds.

Gender equality is the thematic element with the least appearances in the identified GPs; only **7/23 cases** involved issues related to balanced participation of men and women in the company / organisation / project team, research on gender issues, or the promotion of female participation in the sector relevant to the GP.



4.2 Use of support actions in the GP

In this subsection, the results on the use of any of the three support actions identified in MARIE as instrumental in implementing an RRI approach (Quadruple Helix, Open Innovation and Information and Tools) are presented.

Open Innovation was the support action reported most frequently in the GPs (**15/23 cases**). It is implemented in the GPs through:

- Use of both internal and external ideas, partner and sources, collaboration with all stakeholders (internal and external), such as R&D organisations.
- Open calls for problem definition and identification of needs of involved stakeholders.

- Open access to collected data, results, outcome (product / service) and research produced from the GP.
- Use of available open resources for the development of the product / service, such as open source software.
- Continuous elicitation of feedback from customers / end users.

Information activities and Tools were used in **12/23 cases**. Some cases reported using more than one activities under Information and Tools; 5 reported 2 tools, 4 reported 3 tools and 1 reported 4 tools. The most frequent activities were information and promotion events (e.g., conferences), workshops, and meetings with stakeholders.

The **Quadruple Helix** approach was used in **7/23 cases** (from 6 different countries: Greece, Ireland, Spain, - 2 cases, France, Romania and Finland) responded as having used this approach. They represent a variety of products / services ranging from pharmaceutical products to a festival for the digital industry to wine production.

4.3 Management of the GP and activities for achieving stakeholder engagement

In this subsection, the results on the person(s) responsible for managing the GP and the processes for ensuring increased stakeholder participation / engagement are presented.

Persons within the company / organisation responsible for managing the GP were: the CEO (10 cases), a senior executive / higher level manager (5 cases) or a project manager, in case of a team project (7 cases).

Two categories of activities for increasing the inclusion of stakeholders were identified:

- **Official / formal processes**, which include open deliberation processes, formal debate sessions with stakeholders, co-decision making processes with stakeholders (e.g., in general assemblies of stakeholders, in production and promotion processes), steering groups / committees with the participation of stakeholders, stakeholder forums and workshops.
- **Interpersonal / informal processes**, which include personal contact and meetings among team members and stakeholders, bilateral informal meetings, and social events for networking, cooperation and idea sharing between teams.

4.4 Transparency in decision-making within the GP

In this subsection, the results on how transparency was ensured in the GP decision-making process are presented. Four categories of methods for ensuring transparency were identified:

- **Structured approach**: This approach includes clear processes for decision-making, such as project management plans, documented decision processes, use of formal decision management systems, traceability and security of data and information flows.

- **Collaborative decision-making:** Direct democratic processes of collaborative decision-making such as co-voting (e.g., in general assemblies of stakeholders) are used to ensure transparency, especially in small-sized GPs with few participating stakeholders.
- **Open exchange:** Openness is ensured through open communication processes, open calls for participation in the GP, open consultation in stakeholder meetings, open dissemination events, open debates etc.
- **Inclusion:** Inclusion leads to transparency when as many stakeholders as possible are involved in the innovation process. This can be achieved through the active involvement of partners in the innovation process, collaboration and co-creation with stakeholders within the GPs, as well as increasing internal staff involvement.

In terms of the variety of activities fostering transparency, 1 case reported 4 methods, 3 cases reported 3 methods, 5 cases reported 2 methods and 10 cases reported 1 method. However, some respondents did not want to disclose internal information on this question and others mentioned that the decision-making is made only from the upper management. This may indicate that while transparency is overall an important consideration in the innovation process, it is not always treated as such.

5 Results and Impact

In this section, the results of the analysis on to the assessment of the GP success, measurable results of success, and the GPs relation to European Societal Challenges are presented.

5.1 GP success and measureable results

In this subsection, the results on whether the GPs were considered by the respondents as successful and whether measurable results were available, are reported. The majority of the respondents (19/23 cases) replied that the GPs were successful. In a few cases (5/23) the response was “partially successful”, as the GP had multiple goals and not all of them were met. Moreover it is worth mentioning that many answers were given with caution as some projects are still running, therefore there is no final evaluation yet.

In terms of the measureable results, we classified the survey results in four categories of indicators:

- **Business indicators:** These indicators measure the business performance of the GP. They include: sales, international demand, foreign investment, number of operating units of the end product, number of clients, growth of business.
- **Academic / research indicators:** These indicators measure the scientific output produced during the research and innovation process. They include: number of scientific papers produced, number of project deliverables.
- **Reach indicators:** These indicators measure the reach of the GP to the potential beneficiaries or customer target groups. They include number of GP beneficiaries (i.e. persons / groups that benefitted from the GP), number of participants, number of visitors.

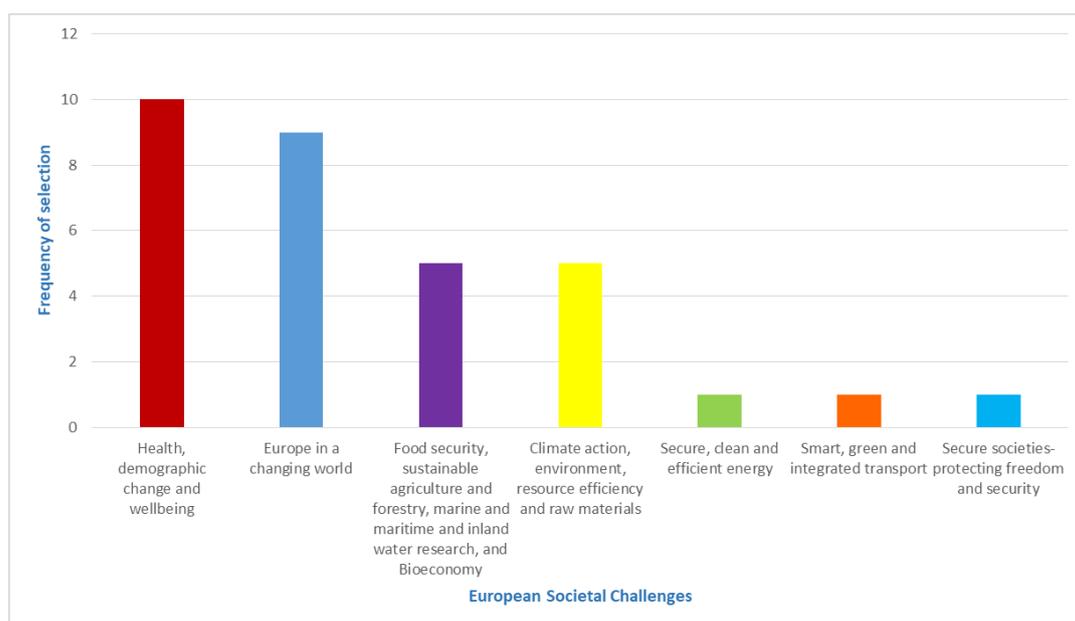
- **Recognition indicators:** These indicators measure the acknowledgment and appreciation of the GP and its impact on the beneficiaries, society and stakeholders. They include awards, extent of media coverage.

5.2 Relation of GP with European Societal Challenges

In this subsection, the results on the linkage of the GPs with the European Societal Challenges, which reflect the policy priorities of the Europe 2020 strategy and are included in Horizon 2020 as challenges faced by citizens in Europe, are reported. The results of Table 5-1 show that “Health demographic change and wellbeing”, and “inclusive, innovative and reflective societies” are the two most frequent categories of societal challenges addressed by the GPs.

European Societal Challenges	Frequency of selection
Health, demographic change and wellbeing	10
Europe in a changing world – inclusive, innovative and reflective societies	9
Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and Bioeconomy	5
Climate action, environment, resource efficiency and raw materials	5
Secure, clean and efficient energy	1
Smart, green and integrated transport	1
Secure societies-protecting freedom and security of Europe and its citizens	1

Table 5-1: European Societal Challenges addressed by the GPs



6 Factors Affecting the Implementation of the GP

In this section, the results of the analysis on the drivers and barriers for and against the development and implementation of the GP as well as factors affecting (positively or negatively) the transferability of the GP to other regions, are presented.

6.1 GP enablers and barriers

In this subsection, the results on the factors that enabled/facilitated and hindered the development and implementation of the GP are presented.

The analysis yielded five categories of enablers:

- **Organisational enablers**, which include a collaborative and innovative corporate, a company with a market orientation and external focus of its operations, flexibility of the company to take on new projects, diversity and complementarity of skills required to develop and implement a GP, the reliability of the company as a partner stemming from its good reputation, the existence of trust in the relationships between innovation partners, transparent and open decision-making processes, and the engagement of employees in the innovation process.
- **Inclusion and partnerships / synergies**, which include the development of partnerships with various stakeholders (e.g. public sector, NGOs, the local community, research institutions etc.), maintaining good relations with stakeholders (e.g. with suppliers, the public) to help overcome barriers or achieve benefits, and personal contact and networking.
- **Financial enablers**, which refer to the availability of funding (internal and external).
- **Technological enablers**, which refer to the availability of open source software.
- **Institutional enablers**, which refer to the existence of a favourable institutional environment.

The analysis has also resulted in the identification of two types of barriers:

- **External barriers**, i.e., barriers from the external environment, which include bureaucracy, lack of RRI awareness from the end users / partners, scepticism of end users / partners towards the product /service, and potential legal issues, e.g. lack of legal status for several undertakings in some partner regions (e.g. social pharmacies and clinics in Attica) and restrictive legal framework in some partner regions in using resources that can contribute to RRI.
- **Internal barriers**, i.e., barriers internal to the company. This category includes the majority of barriers, such as lack of resources (funding, time to develop the GP, lack of knowledge to develop and implement an RRI project), organisational culture that does not foster RRI (e.g., centralised power structures, lack of trust-building, barriers in culture transfer from company to partners), difficulties in attracting the right people with the right skills to develop and implement such a GP, and inadequate management processes and practices related to the lack of formal processes for incorporating elements of RRI in the GP and the need for equipping company employees with different or additional skills in order to implement RRI.

Bureaucracy was an interesting paradox. The cases that mentioned bureaucracy presented it either as a barrier that hampered the implementation of the GP or as a factor that could negatively affect the transferability of the GP. However, one case (Case 1, Greece) surprisingly presented bureaucracy as one factor that facilitated the implementation GP. The explanation was that with a public institution as GP partner, the omnipresent bureaucracy problem was addressed because their public partner took on the role to successfully tackle any bureaucratic barriers. Thus, it can be suggested that cooperating with a public institution may contribute to turning a common barrier (bureaucracy) into a RRI project enabler (dealing with bureaucracy).

6.2 Factors affecting the transferability of the GP to other regions

In this subsection, the results on the factors which affect positively or negatively the potential transfer of GPs between regions are presented.

The analysis has identified numerous factors that can positively affect transferability, many of which are self-evident: existence of know-how / expertise in the receiving region, availability of financial resources, contact with local stakeholders in the receiving region, and inclusion of end users in the transfer process. Among the less obvious ones are: technological standardisation / homogenisation of technological solutions that can facilitate transfer of parts of GPs between different settings, the complementarity and diversity of skills within project teams, and the existence of a communication strategy to raise awareness on the objective and benefits of the GP and enhance its market potential.

Negative factors for transferring an RRI project include bureaucratic barriers of the receiving partner, swift changes in market structures, such as rapid technological changes which may threaten the viability of a project, and the context- and region-specific nature of a GP that refers to a specific problem / issue and thus is difficult to transfer to other regional settings.

7 RRI in the Company

In this section, the results of the analysis on the elements of a company's strategic approach to RRI, not necessarily related to the GP under investigation, are presented. Such elements include drivers, expected benefits from a strategic RRI approach, enablers and barriers, factors affecting transferability etc.

7.1 Drives for adopting a strategic RRI approach

In this subsection, the results on drivers that led GP owners to adopt a strategic RRI approach in their company are presented. A strategic approach to RRI is not limited to the GP under examination but permeates the entire business strategy of the company.

Drivers for strategic RRI were categorised into internal and external.

- **External drivers** include:

- The **existence of social needs** that should be covered (e.g., need to reduce the economic and social impact from the company's operations, need to implement novel technologies in the company's operations)
- The **existence of opportunities for business growth** through RRI (e.g., improvement of product offering, identification of niche market sector that presents demand which has not been met, belief of the company that it can make money through RRI).
- **Internal drivers** include:
 - The **vision** of the company and its top management: a corporate vision rooted in environmental sustainability and social responsibility coupled with the propensity to offer solutions to real-life needs are factors that contribute positively to the adoption of a more strategic RRI approach.
 - An **organisational culture** conducive to RRI: a client-centric approach to the development of products / services that cater to their specific needs, and a culture that fosters openness in collaborating with other stakeholders and is directed towards continuous improvement and giving back to the local community.
 - The continuous **need for adherence to ethics and CSR standards and principles**.
 - A **business model** that has a clear direction towards R&D investments.

7.2 Expectations of benefits from RRI for the company

In this subsection, the results on the expected benefits that the implementation of a strategic RRI approach would bring to the company are presented. Expectations of benefits from the implementation of a strategic RRI approach have been classified in two categories: internal benefits (for the company) and benefits towards external stakeholders.

Internal benefits from the implementation of a strategic RRI approach include a multitude of advantages related to the development of the company's business, such as improvement of market position, increase in revenues and profits, improvement of company image and attractiveness, organisational development etc. Internal benefits also include improving corporate learning and competences, improving co-creation and collaboration with partners, and increasing transparency within the company.

Benefits for external stakeholders include the engagement of citizens in driving and designing social development, improvement of the quality of life, fostering a paradigm change in various aspects of human and corporate behaviour.

7.3 Stakeholders involved in the strategic RRI approach of the company

In this subsection, the results on the stakeholders involved in the RRI-focused product / service approach of the company are presented. The results suggest that the stakeholders involved are similar to the stakeholders identified for the specific GPs examined, i.e.:

- **Internal stakeholders:** the company, the staff / team involved in the GP).
- **External stakeholders:** end users / customers, funding agencies / sources, academic / research institutions and organisations (e.g., universities, research centres), civil society organisations (e.g., NGOs, civil associations, solidarity organisations), external experts providing their know-how in various topic, the local community (people, organisations, companies, local structures, city), the government and public authorities, and other business partners.

7.4 Issues addressed by the company's strategic RRI approach

In this subsection, the results on the identification of categories of issues that the company's strategic RRI approach aims to address are presented. The analysis identified six broad categories of RRI issues addressed by the company's strategic approach:

- **Ethics** and the identification and mitigation of ethical risks in the operation of the company
- **Environment** and the reduction of environmental impacts
- **Inclusion** through the implementation of product / service design approached that are participatory, inclusive and centred towards the end user / beneficiary,
- **Transparency**
- **Alignment with stakeholder needs** through stakeholder engagement, evaluation of the product / service acceptability by the end users and increased cooperation between stakeholders
- **Open access** to the scientific knowledge produced in the operations of the company and education of the public on the scientific issues addressed.

7.5 Use of RRI governance tools by the company / organisation

In this subsection, the results on the use of governance tools for RRI by the company / organisation are presented. Such tools may include codes of conduct, risk management systems, quality certifications, standards (e.g., privacy, security, data protection, ethical standards), RRI/ethical labels and protocols, etc. The analysis suggests that three categories of RRI governance tools are used:

- **Quality certifications** and use of the relevant standards, such as ISO 9001, ISO 13485
- **Use of other standards**, e.g., environmental standards such as ISO 14001, health and safety management such as OHSAS 18001, data protection standards such as GDPR.
- **Use of ethical standards and codes of conduct**, such as internal rules / codes of conduct, internal ethical codes.

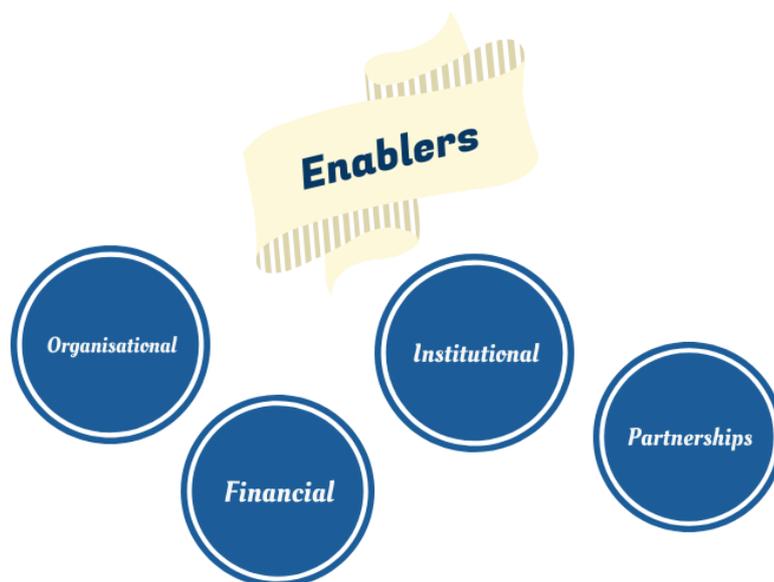
7.6 Enablers of RRI in the company

In this subsection, the results on the enablers of RRI in the company are presented.

The results suggest that four out of five categories of enablers identified in the analysis of the specific GPs apply also to the strategic RRI approach of the company:

- **Organisational enablers** (internal skills, transparency in decision-making, organisational culture, staff motivation and engagement)
- **Inclusion and partnerships / synergies** (commitment of partners, good cooperation between the company and the stakeholders, positive attitude of participants / end users)
- **Financial enablers** (availability of funding)
- **Institutional enablers** (favourable and supporting institutional environment, compliance to legislation)

Finally, two other enablers were identified that could not be categorised into one of the following categories: existence of a clear need (social or business opportunity), and high quality of the RRI concept / inspiring idea.

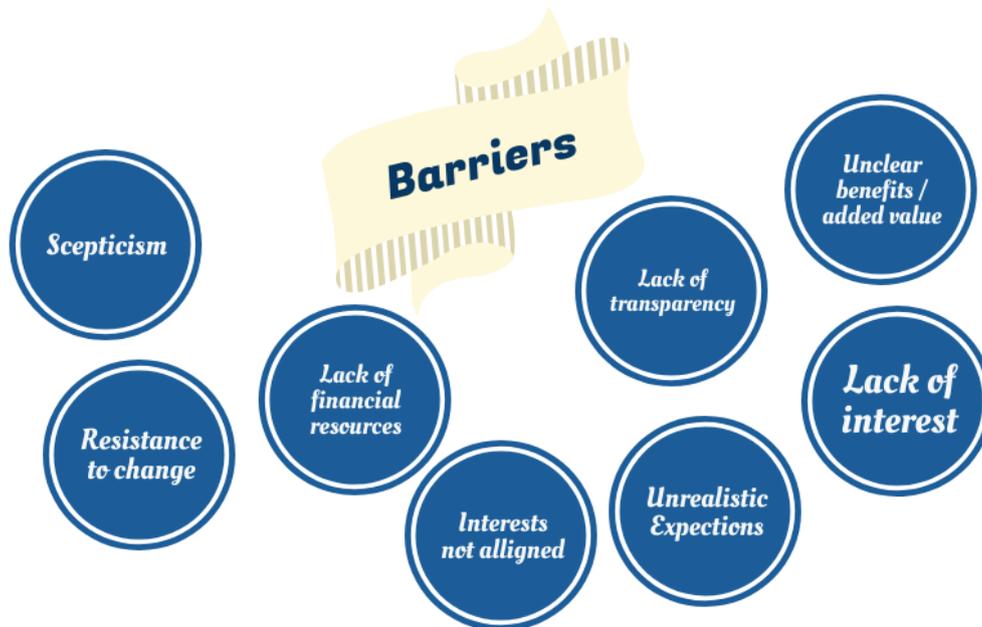


7.7 Barriers against the implementation of RRI in the company

In this subsection, the results on the major barriers that hamper the implementation of RRI in the company are presented. The major barriers identified are:

- Scepticism
- Resistance to change
- Lack of financial resources
- Lack of transparency in practice
- Unclear benefits / added value from RRI: '...If you do not see any benefit for you as a company regarding RRI, it will not really fly...'
- Lack of interest / engagement of stakeholders

- Unrealistic expectations from RRI
- Lack of alignment of stakeholder interests



7.8 Factors affecting the transferability of a company's strategic RRI approach

In this subsection, the results on the factors affecting the transfer of a company's RRI approach to another company are presented.

The results suggest numerous factors that can affect positively the transfer of a strategic RRI approach from one company to another. These relate to the alignment of stakeholders and their engagement in the development of the strategic RRI approach, a clear view about the benefits from responsibility in research and innovation, the availability of funds to implement this strategic approach, the availability of the appropriate human resources to properly execute the RRI strategic plan and the existence of a culture of responsibility throughout the company.

Factors that may negatively affect the transferability of a strategic RRI approach is the scarcity of funds, bureaucratic barriers and the rapid technological development which may increase the danger of obsolescence of technological solutions.

8 Concluding Remarks

This report has presented the cumulative results of the Enterprise Survey performed within the framework of MARIE project. The findings of the Enterprise Survey are numerous; the most important ones are summarised in the following points:

- Drivers motivating the development of the GP come both from within the company (e.g., organisational culture, recognition of a business opportunity, need to provide benefits to end users / society) and from the external environment (external funding, technological trend).
- Stakeholders involved in the GP development and beneficiaries from the GP are both internal (i.e., the company, its funders / shareholders, and its employees) and, mainly, external (end users, research community, local community, broader society).
- The RRI thematic elements most frequently addressed by the GPs are Public Engagement and Ethics, while Gender Equality is the thematic element with the least appearances in the GPs covered by the survey.
- The GPs used Open Innovation with the highest frequency among the three support actions, whereas Quadruple Helix was the least frequently used.
- The majority of GPs was deemed as successful or partially successful (where not all GP objectives had yet been met). Success was measured in terms of business indicators, academic / research indicators, reach indicators and recognition indicators.
- Main enablers for the development and implementation of the GPs were organisational enablers from within the company (collaborative culture, market orientation, diversity and complementarity of skills, trust etc.) and partnerships / synergies formed by the company, suggesting that the company should be RRI-oriented from the outset. External enablers include financial, technological and institutional.
- Main barriers again include internal barriers such as lack of resources, an organisational culture that does not foster RRI, lack of trust, centralisation of power and lack of autonomy, difficulties in attracting the right people. External barriers include bureaucracy, scepticism and legal issues.

References

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