Deliverable 1.4

Benchmark report & policy paper:

"Integration of the RRI approach into collaborative R&D&I and SME participation in European funded collaborative research in healthcare, nanotechnology and ICT"

RESPONSIBLE INNOVATION COMPASS

Grant agreement number	710543
Project acronym	COMPASS
Project website	www.innovation-compass.eu
Deliverable number	D1.4
Version/last editor	V1, Caroline Nwafor
Work package number	1
Lead	WU
Nature	Report
Dissemination level	Public
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 710543

Table of content

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 710543

List of figures

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 710543

List of tables

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 710543

1. Introduction

In the past decade, European research and innovation policy has increased its efforts to align scientific excellence with the societal relevance of research and innovation. The concept of "Responsible Research and Innovation" (RRI) was established in European research and innovation policy in 2010, and has since become a cross-cutting issue in the eighth European Framework Programme for Research and Innovation ("Horizon 2020"[1]). This policy paper presents an overview on RRI projects and initiatives carried out in Europe over the course of the past ten years, their approaches and objectives, with focus, in particular, on those relevant for business.

RRI is a relatively novel concept in the public debate; used to describe a research and innovation process that takes into account effects and potential impact on the environment and on society. RRI is based on the assumption that in order to find sustainable research and innovation solutions for the grand societal challenges of our time, all societal actors (business, research, citizens, policy makers, and civil society organizations) must work together. RRI has a high potential for making European research and innovation processes more open and responsive to societal needs and expectations.

Several definitions of RRI are commonly used. Von Schomberg (2011) defines RRI as a "*transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view on the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products*"[2]. The European Commission describes RRI as "*an inclusive approach to research and innovation (R&I), to ensure that societal actors work together during the whole, research and innovation process. It aims to better align both the process and outcomes of R&I, with the values, needs and expectations of European society*" (European Commission 2012). This definition further includes five thematic elements (gender equality, open access, public engagement, ethics, and science education), and features "governance" as an overarching element[3]. A series of workshops, policy documents, as well as a Special Issue in the Journal of Science and Public Policy (Owen et al., 2012 and Stilgoe et al., 2013) have developed the key tenets of RRI to include socially desirable science and innovation ("anticipatory"); processes of mutual exchange in setting research and innovation direction ("inclusive"); and flexible, reflexive and socially responsible ("responsive") governance of the process.

The concept has found its clearest policy expression—that effective innovations are those that consider ethical, legal and policy issues early in the innovation chain—in the Horizon 2020 research strategy, which aligns research and innovation goals of the European Commission with broader societal needs through Horizon 2020 Societal Challenges[4]. The increasing number of publicly funded projects and private initiatives attests to a growing interest in RRI.

[1] https://ec.europa.eu/programmes/horizon2020/
[2] See chapter 6 "References" for full citations.
[3] In an earlier publication the European Commission identified six key action points, governance being the 6th one.
[4] https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation

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1.1. Methods

A first preliminary mapping of projects and activities related to RRI was carried out during the preparation of the COMPASS (710543) project proposal. This first collection showed that current RRI projects have a lot to build upon. A systematic mapping of RRI projects was then carried out in three steps in WP1 of the COMPASS (710543) project.

Step 1: Scoping

a. RRI projects funded by European programmes

The systematic scoping of FP7 and H2020 projects carried out within this project is based on an understanding of RRI as a holistic concept, meaning such projects are understood as "RRI projects" when they incorporate at least two of the five thematic elements; either in process set-up or (expected) project outcomes. The following search terms were used to identify RRI projects (titles and abstracts) in the CORDIS database: "RRI", "responsible research", "responsible innovation", and "responsible research and innovation".[5] A total of 84 projects were identified.

In addition to the CORDIS database, respective databases for tendered projects, OECD projects, and EC databases (including Eurobarometer, KET's Observatory, and JRC), the Keep database, and the RRI Tools search engine[6] were screened.[7]

Additional projects and initiatives were identified in the respective databases for OECD projects and projects funded under the INTERREG programmes (Keep database[8]). The key search was performed using the same search terms as mentioned above. The key search resulted in **a total of 89 projects**, which were primarily identified in the CORDIS database.

b. RRI industry initiatives

In order to provide a broad picture of the uptake of RRI principles, the search was extended to projects initiated by private companies. Projects were identified through the search function in search engines, using the following search terms: "RRI industry/ companies", "responsible innovation industry/ companies", "sustainable innovation industry/ companies", "ethical innovation companies", "companies ethics", "ethical R&D/ company", "sustainable R&D/ company".

The investigation revealed **a total of 22** private companies.

In a subsequent step, the European companies represented in the Forbes list "The world's most sustainable companies"[9] and Ethissphere's "2017 world's most ethical companies

[5] The extracted list of projects was validated and completed in three consecutive steps: First, the list was compared to an alternative list of RRI projects that had been identified in a google keyword search; second, the search algorithm was extended to account for all possible variations of "RRI" (i.e. "RRI-", "RRI," " RRI ", etc.); third, projects that included the three letters "RRI" with a different meaning (e.g. in the word "territory") were deleted from the list.

[6] https://www.rri-tools.eu/search-engine

[7] National databases (such as EPRSC or ORBIT) and nationally-financed projects have not been taken into account.

[8] https://www.keep.eu/keep/

[9] https://www.forbes.com/sites/kathryndill/2016/01/22/the-worlds-most-sustainable-companies-2016/#64405f8b2380

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honorees"[10], were analysed in regard to their link to, and integration of, RRI. The analysis included 24 companies identified in Forbes' list (see Annex 3) and 17 companies in Ethissphere's list (see Annex IV).

Step 2: Coding

a. RRI projects funded by European programmes

Abstracts and executive summaries were carefully read by three different members of the project team, in order to establish their exact focus. These abstracts and executive summaries were then coded through text analysis according to:

- Thematic area (ICT, healthcare, nanotechnology);
- Industry focus (yes/no);
- SME focus (yes/no);
- Direct reference to thematic elements of RRI (gender, open access, public engagement, ethics, science education), sustainable development or corporate social responsibility (CSR) (yes/no for each).

The second coding exercise was aimed at identifying which of the five thematic elements of RRI[11] was addressed in the project, and, in addition, which projects connected RRI to sustainable development and/or CSR. An additional category was added to describe projects dealing with RRI, but which did not focus on any particular aspect among those aforementioned aspects.

The third coding exercise aimed to identify the different project goals and objectives, as well as categorize the (expected) outcomes.

b. RRI industry initiatives

Websites and sustainability reports (if available) of all identified companies, and businesses on the Forbes list of "The world's most sustainable companies" and Ethissphere's list of "2017 world's most ethical companies honorees", were screened for RRI initiatives and the following elements:

- Mentioning of the term RRI (yes/no);
- Notion of "responsible activities" in use;
- Thematic elements of RRI covered (gender, open access, public engagement, ethics, science education);
- Thematic focus;
- Industry sector.

[10] http://worldsmostethicalcompanies.ethisphere.com/honorees/

[11] In those cases where different terms are used in the on-going discussion, all of these terms were accepted as evidence for one of the thematic elements of RRI (such as "societal engagement" and "public engagement", "gender" and "diversity" or "technology access" and "open access").

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Step 3: Analysis[12]

a. RRI projects funded by European programmes

The coded sample was analysed with four different aims:

1. Descriptive analysis of RRI projects in Europe: number of projects, funding programmes, and duration;
2. Content analysis: project objectives, key innovation fields and thematic focus;
3. Relevance for industry: main objectives and activities of industry-related projects;
4. Main FP7 and H2020 actors: connections, funding shares per country and type of organisation, and participation behaviour.

b. RRI industry initiatives

The coded samples were analysed with the aim of showing the number of companies dealing with RRI, their distribution per country and sector, which thematic RRI elements they focus on, and activities conducted to implement RRI.

[12] The analysis of topics, outputs and industry coverage is based on project description and documentation on CORDIS database, and project websites.

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2. RRI projects in Europe

A total of **89 European RRI projects** were identified in databases, including EC databases (CORDIS), Keep database, and OECD databases (e.g. the innovation policy platform).

A total of 84 of the 89 projects have received funding through the European Commissions' programmes H2020 and FP7 with a cumulative budget of over EUR 200 Mio. The other five projects have been funded through the Interreg programme[13], the South East Europe Transnational Cooperation Programme[14], the North West Transnational Cooperation Programme[15], the European Climate Foundation[16], and the OECD[17] (see Figure 1).

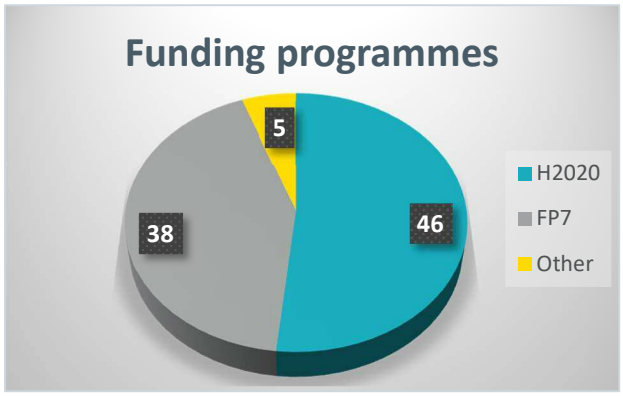

Figure 1: Distribution of RRI projects according to European research funding programmes

Beginning times and duration of projects

Figure 2 shows the amount of projects initiated each year, starting from 2008. The graph shows that the amount of RRI projects has been on the rise, especially since 2011. The highest value is observed in 2016, when a total of 24 projects were funded. This trend seems to be continuing in 2017, where seven projects have already received funding in the first three months. Figure 3 shows project durations of all RRI projects.

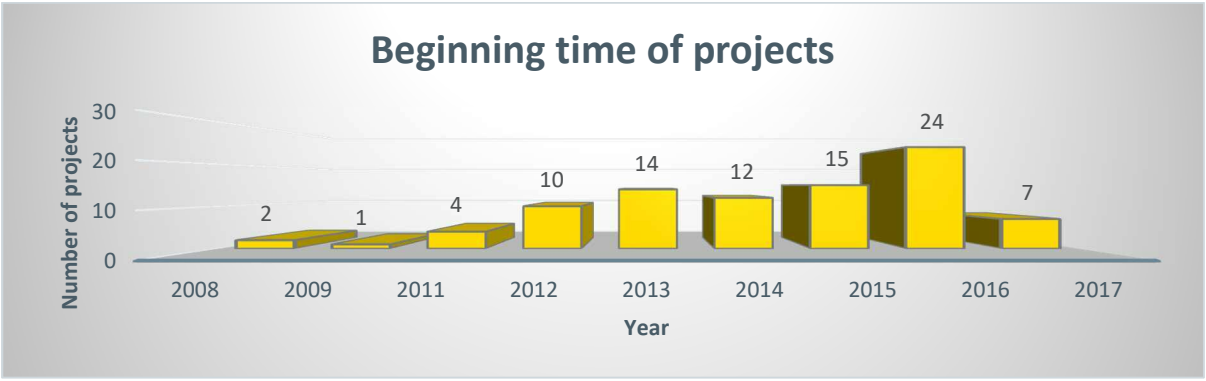

Figure 2: Projects timeline- beginning date of projects

[13] https://www.interregeurope.eu/
[14] http://www.interreg-danube.eu/about-dtp/south-east-europe-programme-2007-2013
[15] http://www.seupb.eu/programmes2007-2013/interreg, overview/transnational/northwesteuropeprogramme.aspx
[16] https://europeanclimate.org/
[17] https://www.innovationpolicyplatform.org/oecd-working-party-bio-nano-and-converging-tech-bnct

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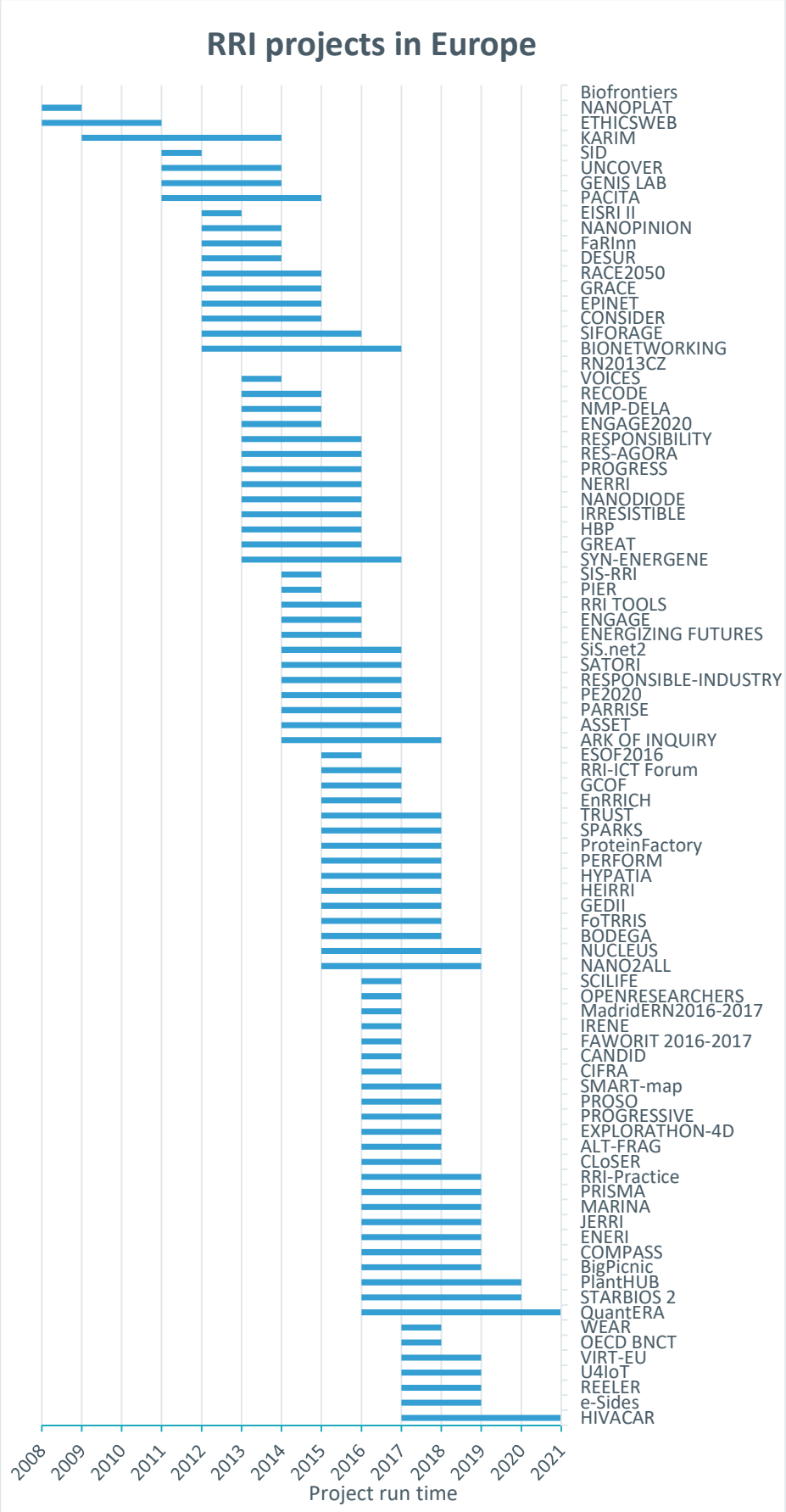

Figure 3: Overview of all RRI projects including project duration

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2.1. Key innovation fields

RRI projects address a variety of topics and research areas, including biomedical technologies, food security, urban waste, robotics, big data, and smart grids.

However, clustering according to innovation fields revealed a range of thematic overlaps, and allowed for the allocation of the majority of projects to one of five key areas; namely science and research, health, ICT, nanotechnology, and sustainability (see Figure 4).

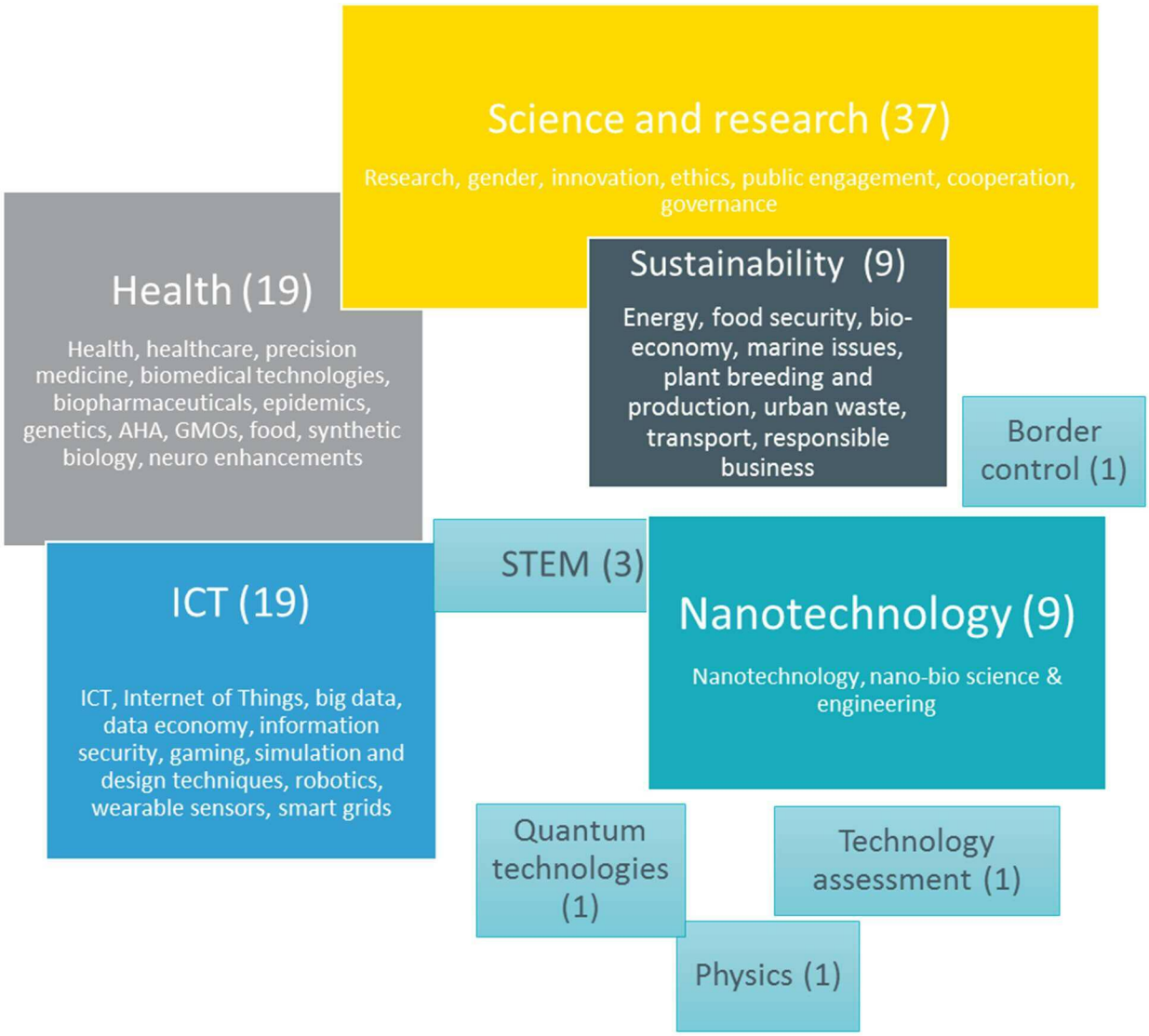

Figure 4: Key areas of RRI projects
NB: The number in brackets indicates the number of projects in the respective area.

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2.2. Main objectives

The 89 RRI projects follow different project objectives. Nine different types of project goals could be identified (see Figure 5) and are described in detail below.

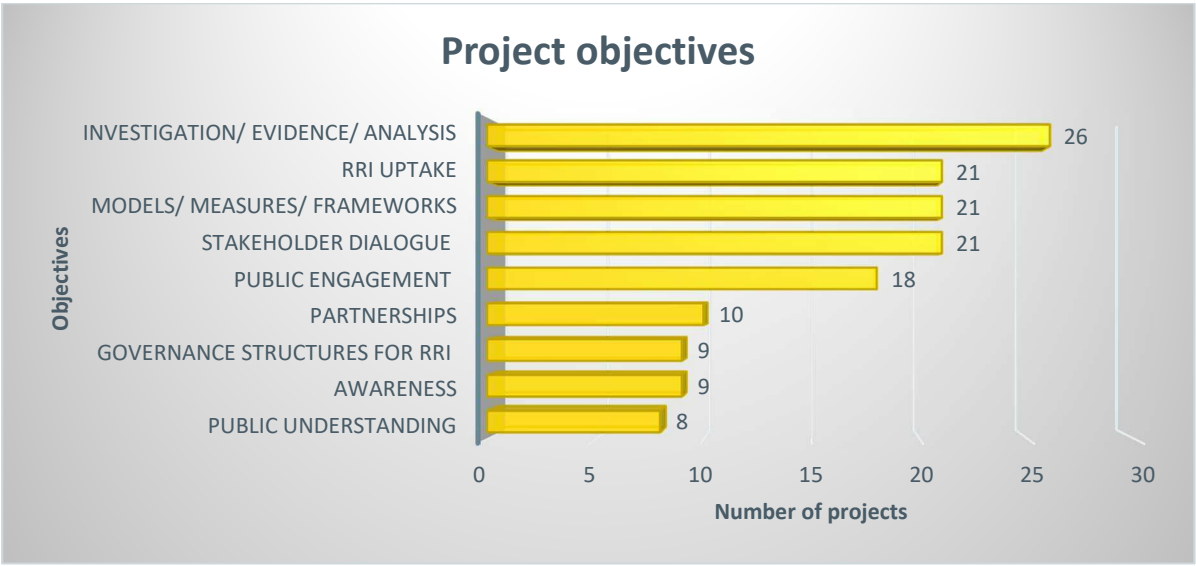

Figure 5: Main objectives of RRI projects
NB: While about one half of the projects showed a clear focus on reaching one specific goal, the other half aimed at reaching two or up to four different objectives. Consequently, numbers in this illustration exceed the total number of projects.

Project objective "Investigation/ evidence/ analysis"
The biggest category includes projects with the main objective to investigate and provide evidence for current RRI issues and future developments. The analyses either relate to specific subjects (such as border control, the patent system, and the main societal and ethical challenges emerging from the adoption of big data technologies) or relate to RRI itself. Projects like PRISMA[18], GREAT and BIONETWORKING examine the characteristics of responsible practises, the evidence of the added value of RRI, and how to create RRI in the life sciences.

Project objective "RRI uptake"
Raising and facilitating the uptake of RRI in different fields of innovation is one of the most common objectives of RRI projects. Specific goals in this category include, for example, enabling the uptake of socially responsible ICT-related research (ALT-FRAG), introducing RRI in neuro-enhancement (NERRI) or creating a network of stakeholders to diffuse the concept of RRI (RESPONSIBILITY).

Project objective "Models/ measures/ frameworks"
About one fourth of the projects voice the explicit objective to develop "tools", "models" or "frameworks" that will help foster the implementation of RRI. Outputs of these projects include case studies, taxonomies, models for RRI, models of participation, training tool kits, and platforms for dialogue and communication (read more in chapter 2.3).

[18] Details of each RRI project described in this document can be found in Annex I

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Project objective "Stakeholder dialogue"
One of the defining elements of RRI is the involvement of different stakeholders at different stages of innovation and research processes. Specific goals of projects in this category include organising opportunities for intersectoral and interdisciplinary discussions, knowledge sharing, mutual learning, developing new strategies for outreach and dialogue, creating a network of stakeholders, offering a platform for discussion and reflection, and convening stakeholders to discuss societal questions in emerging and converging technologies.

Project objective "Public engagement"
Public engagement is not only one of the key dimensions of RRI, but also a frequent project goal. A large variety of target groups are addressed in these projects. Some projects, for example, specifically target students, while others aim to engage schoolgirls, or women in science. The common goals of these projects are increasing citizens' engagement and participation in scientific issues, understanding society's visions, interests and concerns, and stimulating an inclusive debate on RRI.

Project objective "Partnerships & collaboration"
Forging partnerships and creating synergies through collaboration is one of the main goals for ten projects. Several of these projects primarily address collaboration with industry, such as EXPLORATHON-4D, SMART-map, and COMPASS (710543).

Project objective "Governance structures for RRI"
A few RRI projects have the particular aim to develop new, or inspire the adaption of, governance structures for RRI. Projects like FoTTRIS, GENIS LAB and RES-AGORA intend to develop new governance practises, mechanisms and frameworks, and initiate structural change processes in institutions.

Project objective "Awareness raising"
A small number of projects are primarily focused on raising awareness for RRI and research, in general, to build up a basis for future public engagement. Some of these projects aim to involve younger generations (e.g. ARK OF INQUIRY) and some the larger public (e.g. IRENE) with the common purpose of raising awareness for RRI and research as a solution to numerous societal challenges.

Project objective "Public understanding"
A few projects focus on increasing public understanding, which often goes together with the goal of engaging the public, assuming that only a literate society can be involved in a meaningful manner. The main objectives in this category include increasing scientific literacy (e.g. Big Picnic, PARRISE), enabling the younger generations to articulate their views, and providing platforms for learning, information and dialogue.

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2.3. Project output

The main project output[19], as described in each project's abstract, demonstrates a wide spectrum of (planned) output of RRI projects. While projects generally aim to provide solutions tailored to sectors or target groups, they do so in a limited number of formats (see Figure 6).

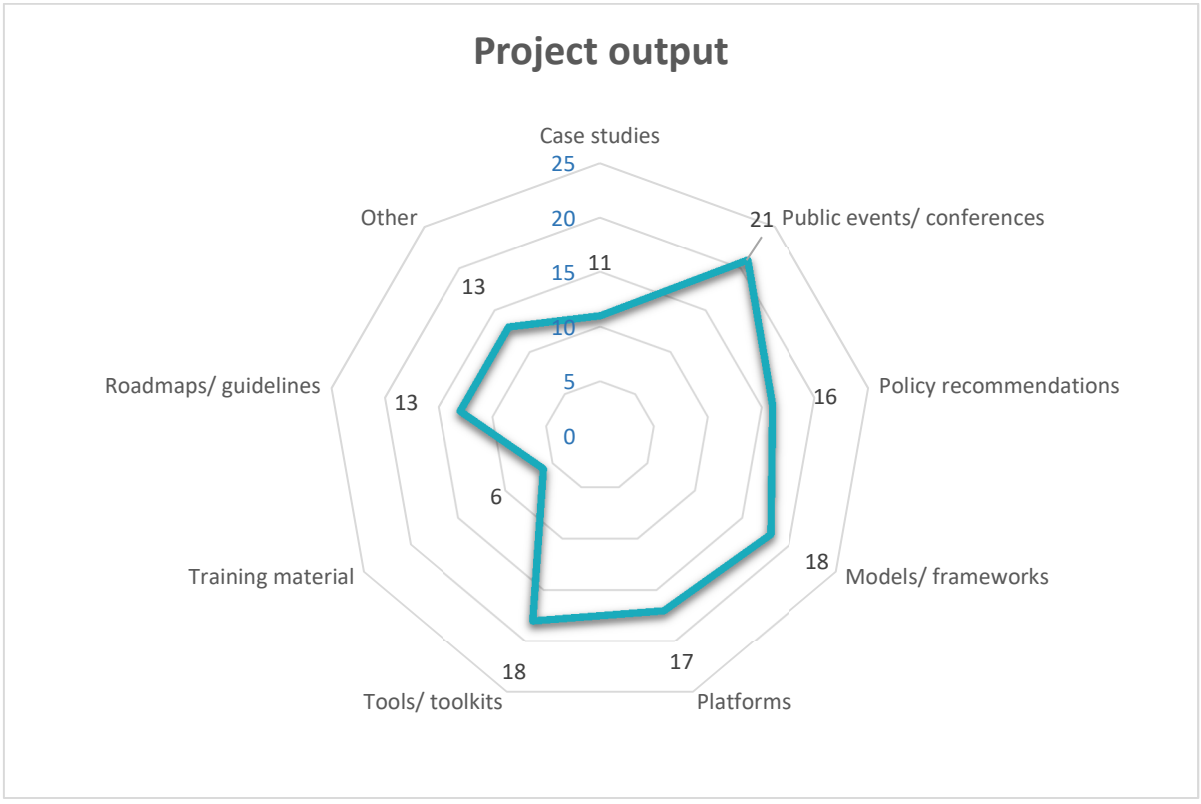

Figure 6: Distribution of different formats of project output

a) Public events/ conferences

Public events are omnipresent in RRI projects. Conferences and public events, such as exhibitions, science cafés, or the most popular format, the European Researchers' Night[20], serve as venues to reach out to the public.

b) Tools/ toolkits

Many of the RRI projects create customized tools to support their target groups in the implementation of RRI. Such tools include management tools, a toolkit of activities and guidelines for engaging teenagers in STEM[21], web 2.0 tools[22], a PE design toolkit[23], tools for international cooperation, or the Gender-Diversity-Index (GDI)[24].

[19] When available, information on project output has been linked to project website.
[20] http://ec.europa.eu/research/researchersnight/about_en.htm
[21] http://www.expecteverything.eu/hypatia/toolkit/
[22] http://nanopinion.archiv.zsi.at/en/about-nano/multimedia-repository.html
[23] https://toolkit.pe2020.eu/
[24] https://www.gedii.eu/wp-content/uploads/D3.1GenderDiversityIndex_final.pdf

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c) Models and frameworks
Several RRI projects focus on developing new models for RRI implementation. They usually base these new models on preliminary research and aim to, for example, raise CSO participation in research[25], change the way in which clinical data in research is used or increase the uptake of RRI, in general. Other output includes, for example, a transparent framework for the review of GMOs and GM food (GRACE) or a framework for Privacy, Ethical and Social Impact Assessment (VIRT-EU).

d) Platforms
RRI projects frequently use interactive platforms and online portals to make content available to a large audience. These platforms are used to host online courses and workshops, enable knowledge sharing, discussion, as well as the dissemination of lessons learned.

e) Policy recommendations
A total of 15 projects use gathered evidence and information to formulate policy recommendations; addressing options for research and political actions, guidelines for higher education institutions and funding agencies.

f) Roadmaps/ guidelines
Roadmaps/guidelines are another format for RRI projects to facilitate uptake and implementation of RRI in different contexts. Examples include an action plan aimed at promoting internal structural changes (GENIS LAB), a RRI-CSR roadmap for transformative technologies (PRISMA), and ethical guidelines (REELER).

g) Case studies
Only a small number of projects are focusing on providing studies of good practise in RRI (e.g. BigPicnic, KARIM, RECODE). It is notable that out of 12 projects providing case studies, four projects are industry-related (COMPASS, KARIM, RESONSIBLE-INDUSTRY, SIFORAGE).

h) Training materials
Only a few RRI projects explicitly mention the production of training materials for third parties. The ones that do, provide, for example, audio-visual training materials and tutorials (COMPASS 710543), resources for academic staff (EnRRICH), and training courses for science teachers (PARRISE).

i) Other: Other forms of output include workshops and reports, clinical trials (HIVACAR)[26], an innovation inventory (PE2020), a Delphi study (RESPONSIBLE-INDUSTRY)[27], and an entire university institute (HBP)[28].

[25] https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxjb25zaWRlcndlYnNpdGV8Z3g6NjRlZjc4NGRmNzM3ZDNhNg
[26] http://www.hivacar.org/the-project/#
[27] http://www.responsible-industry.eu/activities/delphi_study
[28] https://www.humanbrainproject.eu/en/follow-hbp/news/new-building-for-european-institute-for-neuromorphic-computing/

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2.4. Thematic focus

Responsible Research and Innovation is a multifaceted concept, which can be addressed and implemented in a variety of ways. Some of the identified RRI projects aim to approach RRI in a holistic manner by addressing all thematic elements of RRI (gender, open access, public engagement, ethics, science education), while others address certain thematic elements, in particular.

Table 1 shows that the majority of projects aims to address RRI in a holistic way. Projects in this category aim to address all five thematic RRI elements, seeking to broaden understanding of what RRI is and how it can be integrated in different sectors to foster societal development. The majority of industry-related projects can be found in this category.

Table 1: RRI projects and their focus on RRI aspects. (NB: Number of projects' focus areas exceeds total number of projects, because some projects address more than one category.)

Thematic elements of RRI	Nr. of projects
Holistic approach	63
Public engagement	57
Science education	22
Ethics	21
Sustainability	19
Open access	18
Gender	6

The five thematic elements[29] of RRI are unequally covered by the identified RRI projects (see Figure 7).[30] "Public engagement" has received the largest share of interest. Projects address different aspects of the respective thematic elements, which are detailed below.

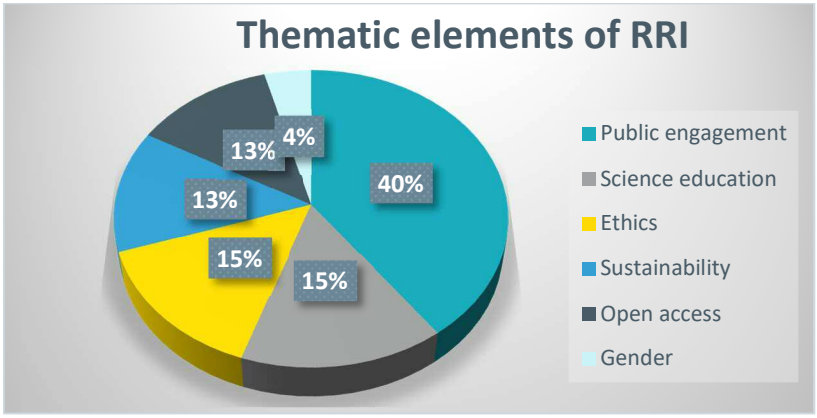

Figure 7: Thematic elements of RRI addressed by RRI projects, including the additional aspect sustainability

(NB: Number of projects' focus areas exceeds total number of projects, because some projects address more than one category.)

[29] "Governance" is considered as overarching element "to promote institutional change, to foster the uptake of the RRI approach by stakeholders and institutions" (http://www.sisnetwork.eu/rri/), in accordance with the current EC definition. Two projects in the sample (FaRInn and RES-AGORA) specifically address this overarching element.

[30] Only projects covering at least two thematic RRI elements have been taken into account in this sample. There is a range of projects focusing on single aspects (e.g. gender) in Europe.

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2.4.1. Public engagement

The thematic element "public engagement", refers to the process of enabling society to participate in democratic processes, and science and technology developments, with the aim of increasing societal relevance and desirability of research and innovation outcomes. Societal actors include researchers, NGOs, CSOs, industries, the general public, young people and scholars, public authorities, etc.[31]

A total of 57 RRI projects explicitly address public engagement, making it the most prominent of all thematic elements in the sample. The topics covered in this category are diverse, and include health, ICT, science and research among many others. Moreover, projects focusing on public engagement often have an industry relation. Involving industry partners in the project processes is already a form of public engagement.

These projects, e.g. U4IoT, SMART-map and NANODIODE, generally aim to foster or increase public engagement, in order to build up stakeholder dialogues, analyse challenges or increase the uptake of RRI. Popular methods in this regard include public events, policy recommendations, models and frameworks, (online) platforms and toolkits.

2.4.2. Science education

The thematic element "science education" encompasses efforts to improve science and technology literacy in society, and to increase attractiveness of scientific careers for young people.[32]

A total of 22 RRI projects set an explicit focus on science education. Very few projects engage in the focus sectors of the COMPASS (710543) project; namely in ICT, healthcare or nanotechnology. However, the great majority of the projects aim to bring research issues, in general, to a greater public or to raise RRI awareness. The involvement of young people is an often recurring topic.

Popular project activities include engaging specific groups (especially girls, students and teachers) though trainings and events, such as the European Researchers Night or science museums. Some projects develop training materials and toolkits to facilitate the uptake of RRI in science and research.

2.4.3. Ethics

The thematic element "ethics" is an integral part of research from beginning to end; it implies application of "*fundamental ethical principles and legislation to scientific research in all possible domains of research*".[33]

A total of 21 projects indicate a focus on ethics. The majority of these projects operate either in the ICT or the healthcare area, while other projects focus on ethical issues and governance practises in science and research, in general.

In ICT-related projects, ethical considerations apply to the design of future IT devices, for example, wearable technologies (WEAR), robotics (REELER), and AHA (SIFORAGE), and how to align them to the ethical and social values of the European Union and its citizens. Healthcare related projects cover bio-medical innovations, genome technologies, AHA (active

[31] European Commission https://ec.europa.eu/programmes/horizon2020/node/766
[32] European Commission https://ec.europa.eu/programmes/horizon2020/node/795
[33] European Commission https://ec.europa.eu/programmes/horizon2020/node/767

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and healthy ageing), genetically modified organisms (GMOs) and genetically modified food, and aim to establish ethically acceptable discourses in these areas.

The main objectives of these projects include awareness raising, investigation of ethical challenges and development of new models and frameworks, where they often implement communication platforms or stakeholder dialogues to achieve these goals.

2.4.4. Open access

The thematic element "open access", has become a core strategy of the European Commission's Framework Programmes, and aims to make research findings and research data available free of charge to a public audience. Infrastructure issues, intellectual property rights, content-mining, and various forms of collaboration are also subsumed under this thematic element.[34]

A total of 18 RRI projects in the sample focus specifically on open access issues. Many of these projects also set a focus on public engagement, thus connecting these two thematic elements. Common areas in which the open access projects operate are health, nanotechnology and research, in general. The projects (e.g. CIFRA, MARINA, and U4IoT) often aim to make research data more accessible, share knowledge by using (online) platforms or engage different actors in stakeholder dialogues.

2.4.5. Gender

The thematic element, "gender equality", aims to address gender issues, such as gender balance in research teams, integrate the gender dimension in R&I, and remove barriers that generate discrimination against women in scientific careers and decision-making (e.g. ASSET, FAWORIT 2016-2017).[35]

Gender equality is hardly represented in the sample of RRI projects[36], with only six projects explicitly setting a focus on this dimension. Most of the projects dealing with the gender equality dimension of RRI focus on gender equality in science, research and innovation, either with the intent of encouraging women to follow a career in the scientific domain or to make the research domain more accessible to women. A majority of these projects aim to develop roadmaps and tools/toolkits (e.g. GEDII, GENIS LAB, HYPATIA, and PRISMA).

2.4.6. Sustainability and CSR

Sustainability is not among the thematic elements of RRI as defined by the EC, but has been recognized as an important aspect of RRI.[37] Insights from the COMPASS (710543) case studies ("D1.3 Compass Case Studies Description"[38]) and the analysis of RRI business

[34] European Commission https://ec.europa.eu/programmes/horizon2020/node/1031
[35] European Commission https://ec.europa.eu/programmes/horizon2020/node/797
[36] The sample of RRI projects is based on an understanding of RRI as a holistic concept, meaning such projects are understood as "RRI projects" when they incorporate at least two of the five thematic elements. It does not include projects focusing on single aspects–such as gender equality, which is addressed by a significant number of projects in Europe, specifically dedicated to this aspect.
[37] von Schomberg (2011) defines RRI as a *"transparent, interactive process by which researchers, innovators and other societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (…)."*
[38] https://innovation-compass.eu/wp-content/uploads/2017/07/Deliverable-1_3-Compass-Case-Study-Descriptions.pdf

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initiatives (see chapter 4) show that sustainability can play a vital role in the implementation of RRI, especially regarding industrial uptake of RRI. Taking sustainability into account would also better align with the related concept of CSR. In an effort to improve the understanding of business leaders for the RRI initiative, a link between the already understood concept of CSR and the not yet understood RRI should be forged (cf. Leisinger 2017).

The sample contains 19 projects that aim to address sustainability issues, and three projects referring to the concept of CSR. Seven of these projects operate in the health sector. Topics covered include bio-economy, responsible business, sustainable growth, energy, GMO food and food security, plant science, transport, liquid fuels and urban waste.

It is worthy of note that almost half of these projects are industry-related, which is in line with the findings of the analysis of private companies (see chapter 4), which showed that the companies applying RRI principles often do so with a focus on sustainability. Many of the projects in this category also set a focus on public engagement or open access. A few projects address ethics and science education.

2.5. RRI projects in ICT, nanotechnology and healthcare

The COMPASS project (710543) focuses on the key innovation fields of ICT, nanotechnology and healthcare. Technological development in these areas is the basis for innovations in various industrial sectors, which may yield further solutions in solving societal challenges, such as hunger, insecurity, and environmental degradation.

A total of 38 projects are active within these innovation fields, mostly in one or two of the sectors (see Figure 8). The only other project investigating within the same three sectors as COMPASS (710543) is PRISMA, which will conduct pilot studies in the fields of synthetic biology, nanotechnology, self-driving vehicles, and the internet of things.

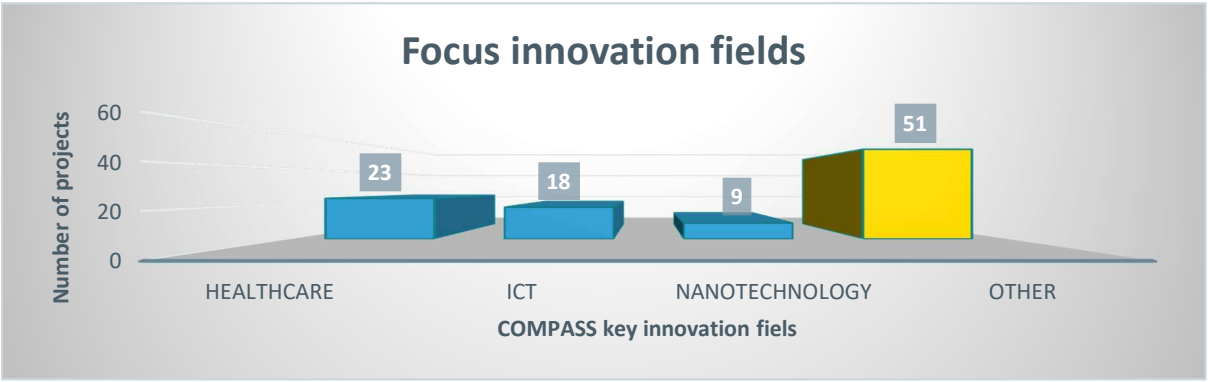

Figure 8: Distribution of RRI-related projects and topics, with reference to the sectors investigated within the COMPASS (710543) project
NB: Some projects address two or all three of the focus innovation fields, therefore the numbers exceed the total amount of projects.

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RRI projects in healthcare

A close link between RRI projects in healthcare and ICT has emerged via a range of projects focusing on ICT applications for healthcare purposes. The profiles of projects in healthcare are very similar to the projects in ICT. Most of them have a rather general approach to RRI. Nevertheless, they stress the importance of public engagement and ethics in the health sector.

One of the most commonly covered topics in health-related research is bio-medicine. Other topics comprise food security, GMOs, HIV research, neuro-enhancement, AHA, and clinical studies.

It is notable that health-related projects maintain a strong connection to industry[39]. Furthermore, they are heavily related to sustainability issues and CSR[40].

RRI projects in ICT

While some projects in this category address the ICT sector, in general, others focus on specific ICT topics, such as gaming, patents, cyber security, wearable technology, big data, or IoT. A strong link between ICT and healthcare becomes apparent, as several projects address ICT-for-healthcare, focus on both innovation fields, or work on cross-cutting issues, such as healthy ageing or advanced therapeutics.[41]

RRI projects in ICT aim to promote socially responsible ICT-related research, to identify and analyze the main ethical and societal challenges evolving from the development of big data technologies, robotics and IoT, and generate new ethical frameworks.

RRI projects in ICT mostly aim to address RRI in a holistic way, but with a special emphasis on the dimensions of public engagement and ethics, and provide less of a focus on open access, gender and science education.

RRI projects in nanotechnology

The number of projects active in the nanotechnology sector is relatively low. Projects in this category are often simultaneously addressing healthcare issues[42].

Many nanotech-related projects are performed with reference to industry or industrial participation. Since sustainability is one of the most relevant elements for companies, it is not surprising that nanotechnology-related projects often address sustainability.

Other RRI elements being addressed include open access and public engagement. The common theme of nanotechnology-related projects is societal engagement and stakeholder dialogue. Most of the projects in this category aim to improve transparency and foster public engagement in nanotechnology by creating platforms for dialogue, learning, and information.

[39] Projects that connect industries and healthcare include COMPASS, NMP-DELA, PRISMA, PROSO, ProteinFactory, RESPONSIBLE-INDUSTRY, SIFORAGE, SMART-map and SYN-ENERGENE.
[40] All of the three projects taking the concept of CSR into account are health-related.
[41] Projects that connect ICT and healthcare include COMPASS, EPINET, HBP, OECD BNCT, PRISMA, PROGRESSIVE, and RESPONSIBLE-INDUSTRY.
[42] Projects that connect ICT and nanotechnology include COMPASS, NMP-DELA, PRISMA, PROSO.

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2.6. RRI projects with a focus on industries

A total of 21 projects express an explicit focus on industry (see Table 2). The COMPASS project (710543) is one of six projects with an emphasis on SMEs.

Table 2: RRI projects with industry focus

Focus on industry	Nr. of projects
Total	21
Industry-related projects	14
SME- related projects	6
Total RRI projects	89

The 21 industry related projects were funded under FP7, Horizon 2020, the European Climate Foundation, and INTERREG programmes.

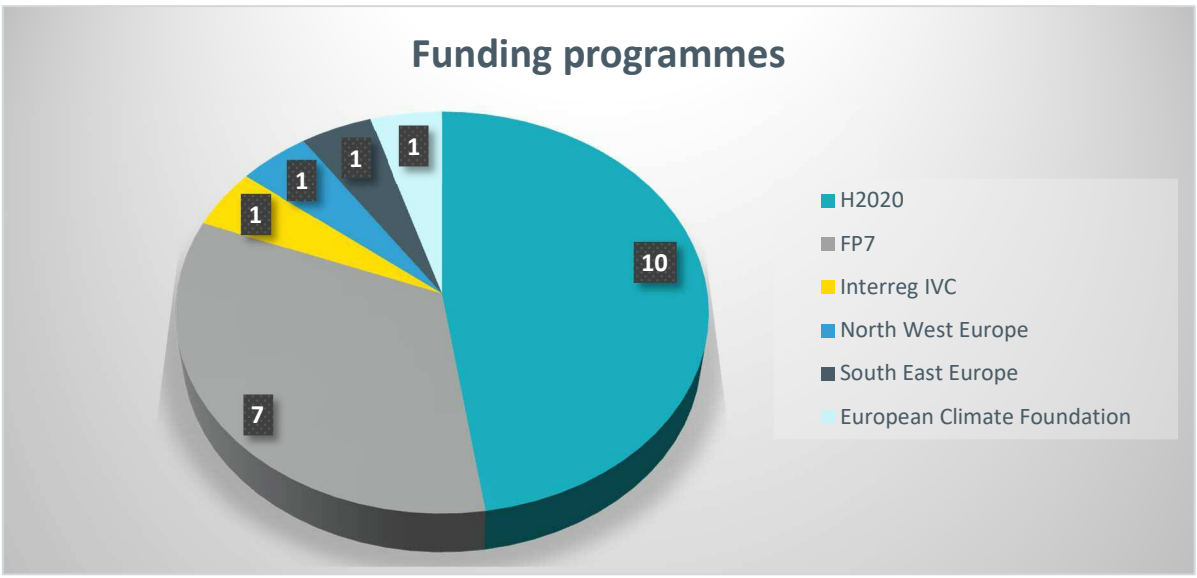

Figure 9: Funding programmes of RRI projects with a focus on industry

Main objectives

The overarching goal of these industry-related RRI projects is to increase the implementation of RRI in industrial research, development and innovation processes, and output. In order to reach this overarching goal, these projects develop strategies to strengthen partnerships, foster collaboration and improve dialogue between industrial players, actors from research, civil society organisations, and the public.

The goals of the projects specifically involving SMEs are comprised of providing evidence, improving policies, instruments and methodologies, providing SMEs access to technologies and innovation support, and building capacity through training.

Main activities/outputs

Activities and output of industry-related RRI projects are diverse. Often, activities are related to the creation of models and frameworks for implementation of RRI in large, medium or small businesses. Common project outputs include the development of innovative business models,

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case studies, roadmaps, action plans and tools, and the strengthening of cooperation and the creation of networks through events and platforms (see

Figure 10). In relation to SMEs, main activities are related to the training of staff members, the creation of business models, roadmaps, tools, and the development of policy recommendations.

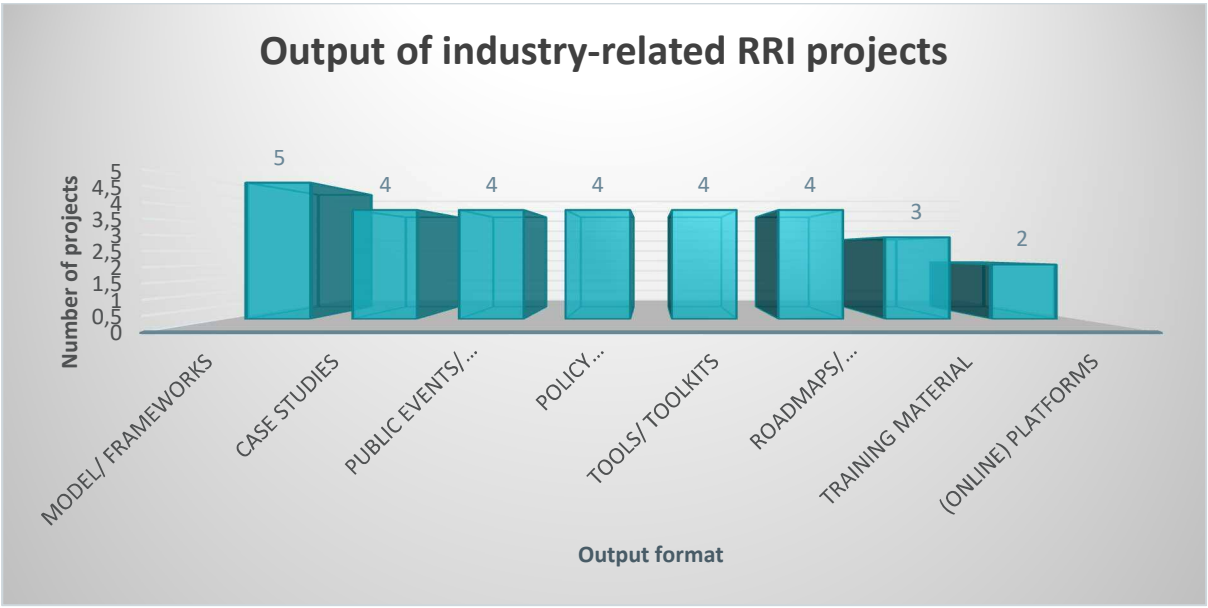

Figure 10: Formats of output provided by RRI projects with a focus on industry

Thematic RRI elements in industry-related RRI projects

Most of the 21 industry-related RRI projects aim to address RRI in a holistic manner, while, at the same time, specifically mentioning public engagement activities. Three industry-related projects also take the concept of Corporate Social Responsibility (CSR) into account.

It is worth noting that from the 19 RRI projects addressing sustainability, nine are industry-related RRI projects, which is a high proportion compared to the other projects.

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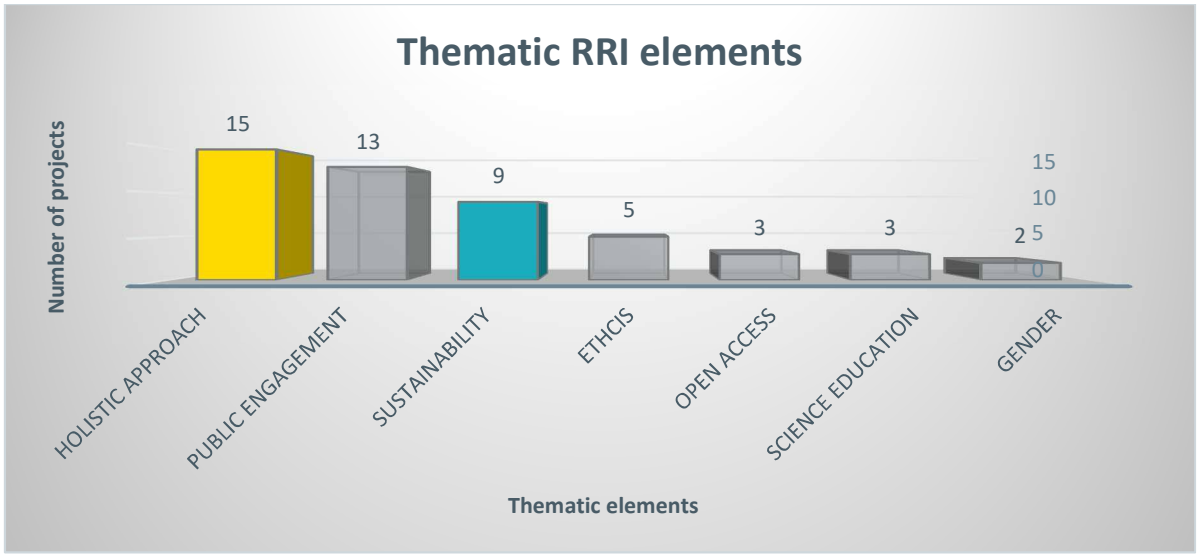

Figure 11: Thematic elements of RRI covered by industry-related RRI projects

Focus innovation fields

The analysis of the industry-related projects reveals that there are thematic overlaps. Half of the projects are active in one or more of the three key innovation fields of ICT, healthcare and nanotechnology. The topics in the other half range from sustainability to quantum technologies to governance, science and research.

Figure 12 illustrates the focus innovation fields of the 21 industry-related projects.

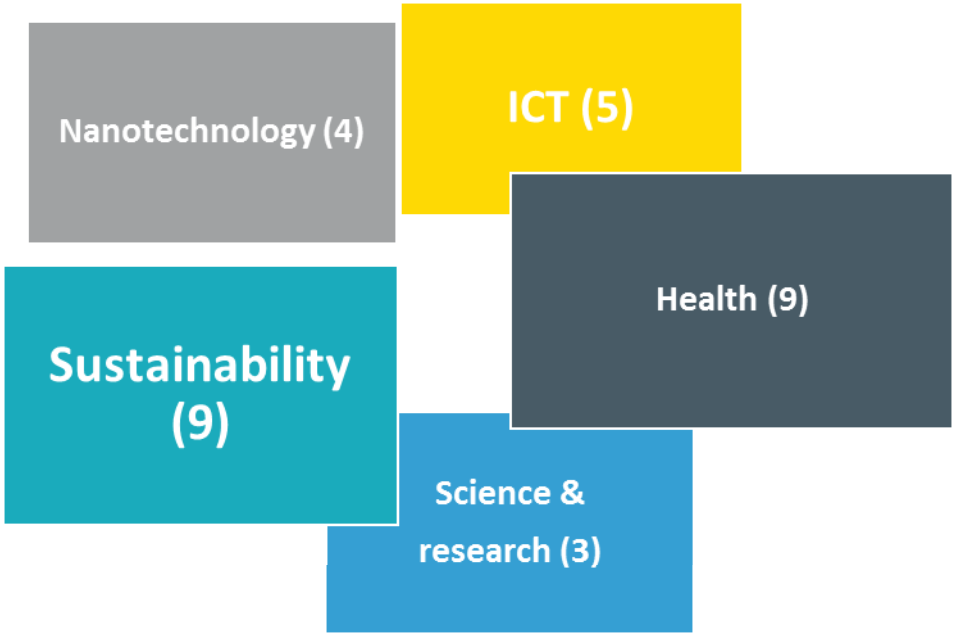

Figure 12: Distribution of the topics investigated within industry-related projects. (The number in brackets indicates the number of projects investigating in the same field.)
NB: Some projects address more than one topic, therefore numbers exceed the total amount of projects.

In total, 11 projects active in the COMPASS (710543) innovation fields of ICT, healthcare and nanotechnology have a relation to industry or involve industrial participants. As the analysis of industrial RRI initiatives shows (see chapter 4), there is a strong emphasis on addressing sustainability issues in these industries.

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3. RRI actors in FP7 and H2020

The vast majority of the 89 RRI projects, are FP projects, 84 in total, where a total of 38 were funded under FP7, while the other 46 projects were funded under H2020. A total of 671 different organizations participated in these 84 projects as coordinators or partners. They were funded with an accumulated budget of just over EUR 200 Mio.

Participation is not evenly spread across countries. Over two thirds of project participations (i.e. coordinators and partners) are based in the same ten countries. Similarly, almost half the budget allocated to the whole sample of projects has been received by organisations based in the same five countries. This number goes up to 80 percent of the total budget for the "top ten" countries (see Figure 13).

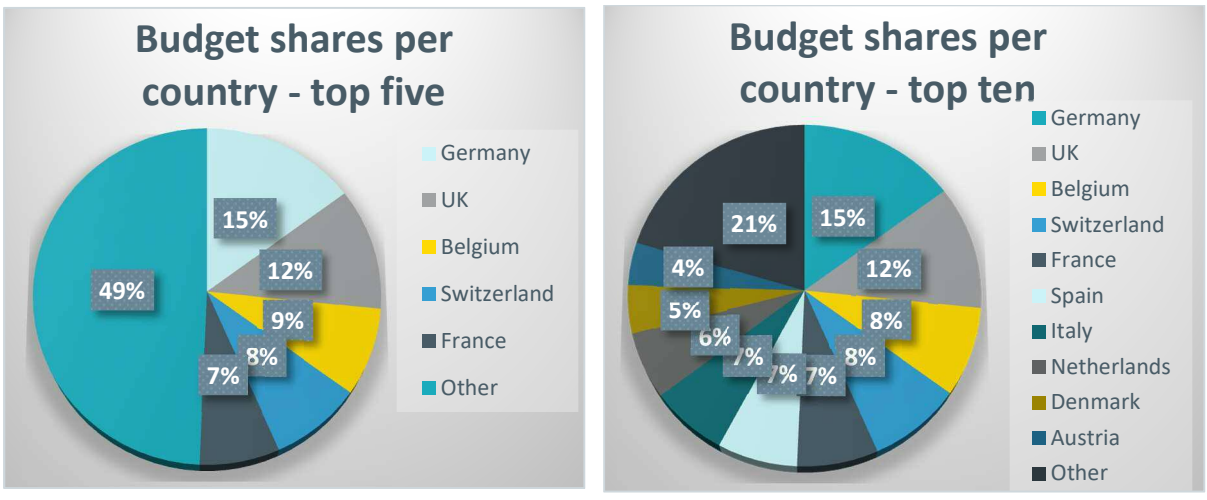

Figure 13: Accumulated budget shares by country - top five and top ten receiving countries

NB: The "Human Brain Project" (HBP) accounts for almost 90 percent of the budget allocated to Switzerland.

Higher or secondary education establishments ("HES") make up the largest part of participants by organization type. HES have received almost half of the total budget allocated to RRI projects and have accounted for a similar percentage of participations. Research

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organisations ("REC") have received another quarter of the total budget. The remaining third of funding and participations has been shared among other organisations ("OTH")[43], private for-profit entities ("PRC") and public bodies ("PUB") (see Figure 14). These budget shares reflect the overall distribution of funding in FP7[44].

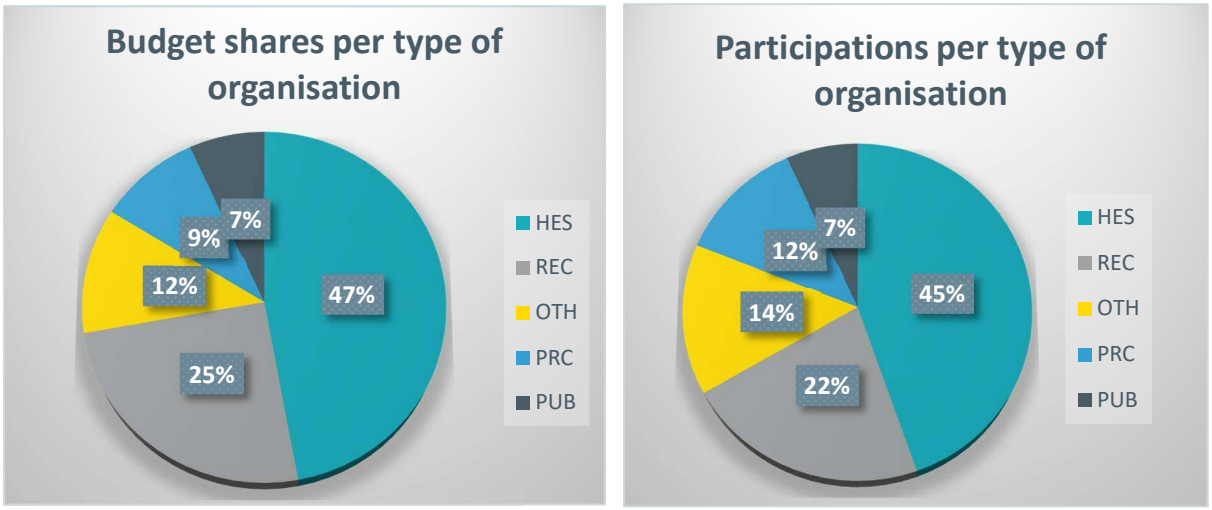

Figure 14: Percentages of budget shares and project participations (as coordinators or participants) in RRI projects by type of participant organisation

Only a handful of the 105 private-for-profit companies that participated in FP7 and H2020 RRI projects are producers of (innovative) technologies. The main bulk of PRCs is made up of consultancies, service providers and independent research centres. The few technology developing SMEs among the sample operate in the biomedicine and telecommunications sector.

Almost 80% of organisations have only participated in one of the 84 projects (see Figure 15). The remaining 20% of organisations have participated in up to ten RRI projects (see Figure 16). A total of 50 organisations make up what can be called the "core group": they have all participated in at least three RRI projects in FP7 and H2020. This core group is, again, dominated by universities and research organisations. Figure 17 and Figure 18Figure 16 illustrate connections between participating organisations via RRI projects they collaborated in; they show a "core group" of closely connected projects, an "outlier" in form of the heavily funded "Human Brain Project" (HBP) and a "periphery" of more loosely connected RRI projects.

[43] "Other organisations" were mainly industry umbrella organizations, associations, university networks and civil society organizations (CSOs).
[44] Ex-post evaluation of the 7th Framework Programme, High Level Expert Group Report: https://ec.europa.eu/research/evaluations/pdf/fp7_final_evaluation_expert_group_report.pdf

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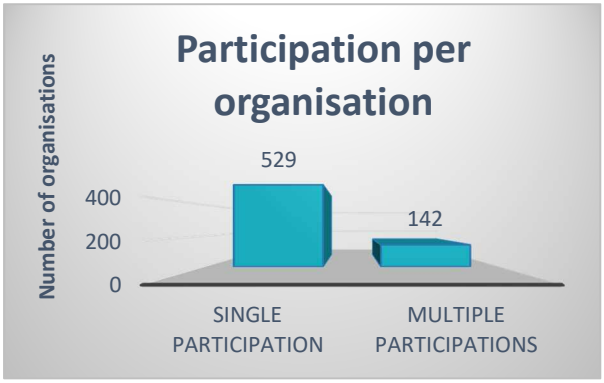

Figure 15: Number of participations in FP7 and H2020 RRI projects per organisation

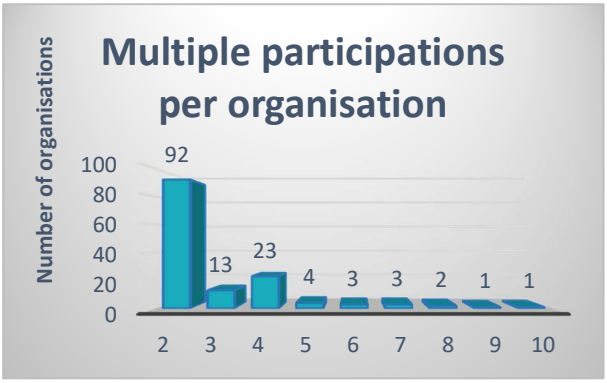

Figure 16: Multiple participations in FP7 and H2020 RRI projects per organisation

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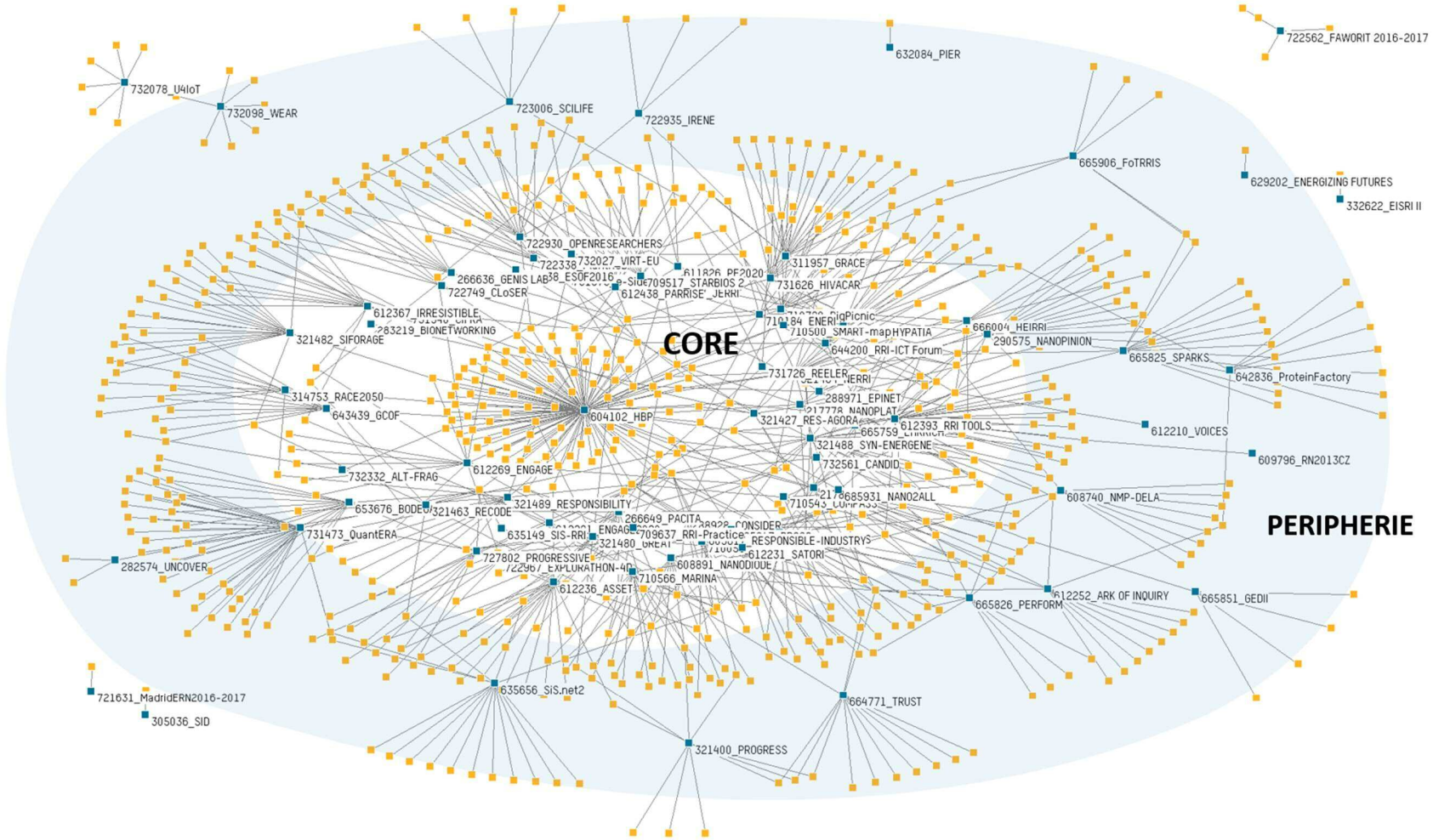

Figure 17: Connections between organizations via FP7 and H2020 RRI projects; Illustration: FAS Research GmbH, NB: Blue dots show RRI projects, yellow dots show organisations. Connecting lines between a yellow and a blue dot indicate that the organisation participated in the RRI project. Distances between projects/organisations are based on graphical presentation reasons only.

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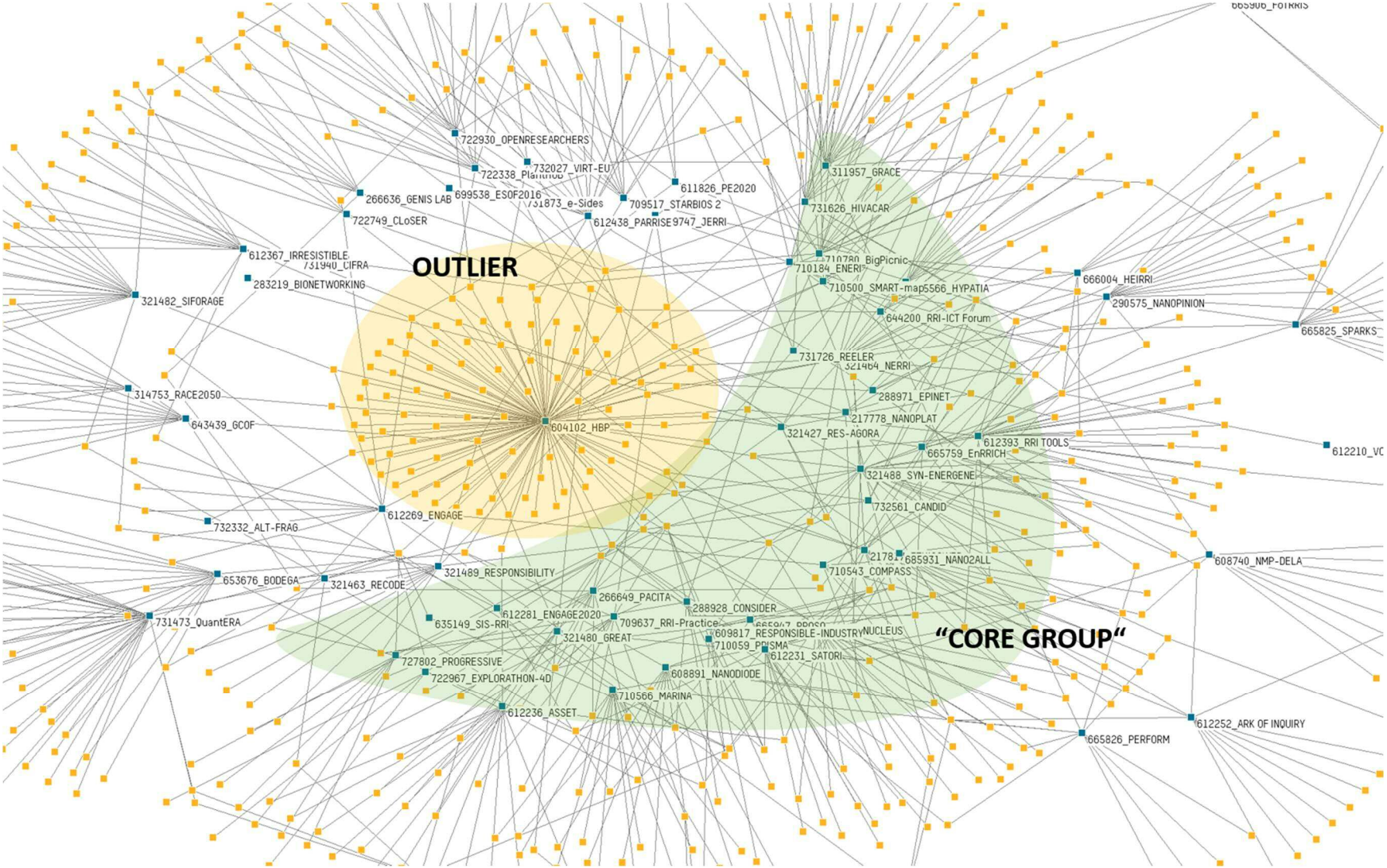

Figure 18: Connections between organizations via FP7 and H2020 RRI projects (core); Illustration: FAS Research GbmH, NB: Blue dots are RRI projects, yellow dots are organisations. Connecting lines between a yellow and a blue dot indicate that the organisation participated in the RRI project. Distances between projects/organisations are based on graphical presentation reasons only.

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4. RRI related industry initiatives

In order to provide a broad picture of the uptake of RRI principles, initiated by private companies, in general, and among the European companies represented in the Forbes list "The world's most sustainable companies"[45] and Ethissphere's "2017 world's most ethical companies honorees"[46], in particular, were analysed in regard to their link to, and integration of, RRI.

4.1. Uptake per sector and country

The key search and analysis of the sample of private companies gives a first impression of how well the concept of RRI has been incorporated into different industries and company culture. A total of 22 companies that have encountered RRI were identified through the search in search engines. More than half of all companies are based in the USA, whereas only 10 companies are Europe-based.

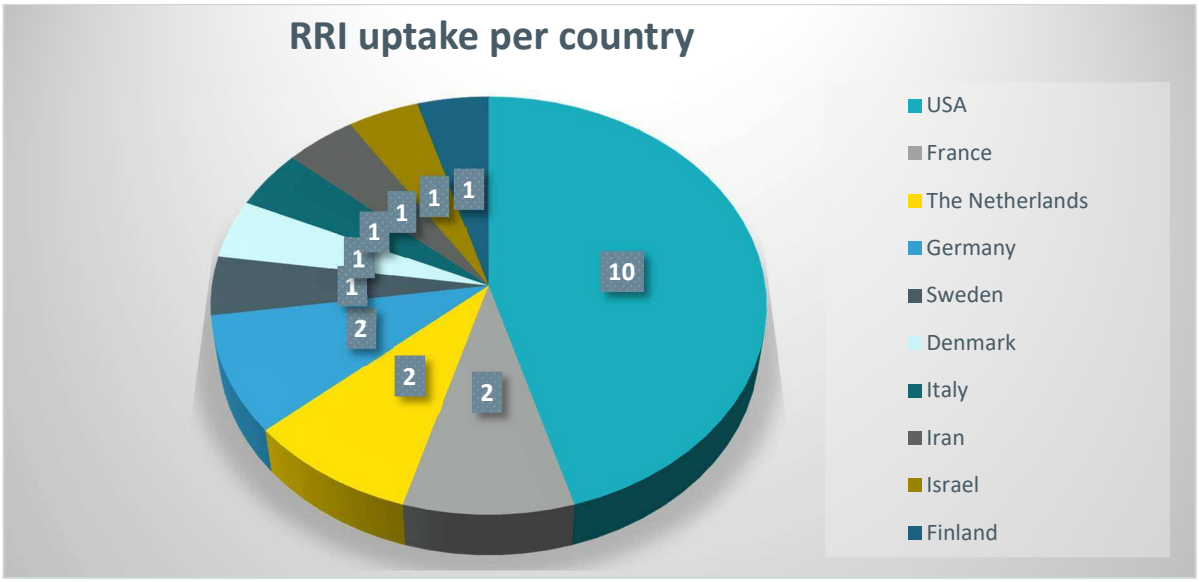

Figure 19: Number of companies identified through key search applying RRI per country worldwide

Even though there are no great leaps between the numbers of identified companies per sector, the key search revealed big differences within certain sectors. While companies still seem to be at the beginning of RRI development, some sectors are already heavily involved, such as the food and the fashion industry.

The food industry, which is among the top 10 most innovative industries[47], took up RRI as a theme in the Food Vision event 2015[48].

[45] https://www.forbes.com/sites/kathryndill/2016/01/22/the-worlds-most-sustainable-companies-2016/#64405f8b2380
[46] http://worldsmostethicalcompanies.ethisphere.com/honorees/
[47] https://www.giminstitute.org/top-10-most-innovative-industries/?page-img105989=2
[48] http://www.foodmanufacture.co.uk/Manufacturing/Responsible-innovation-is-theme-of-Food-Vision-2015

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The Copenhagen Fashion Summit[49] in 2016 brought together companies (including Nike, Patagonia, H&M) to discuss responsible business models regarding the environment, climate change, ethics, workers' rights and welfare, using the motto: *"Sustainability is out and responsible innovation is in"*[50].

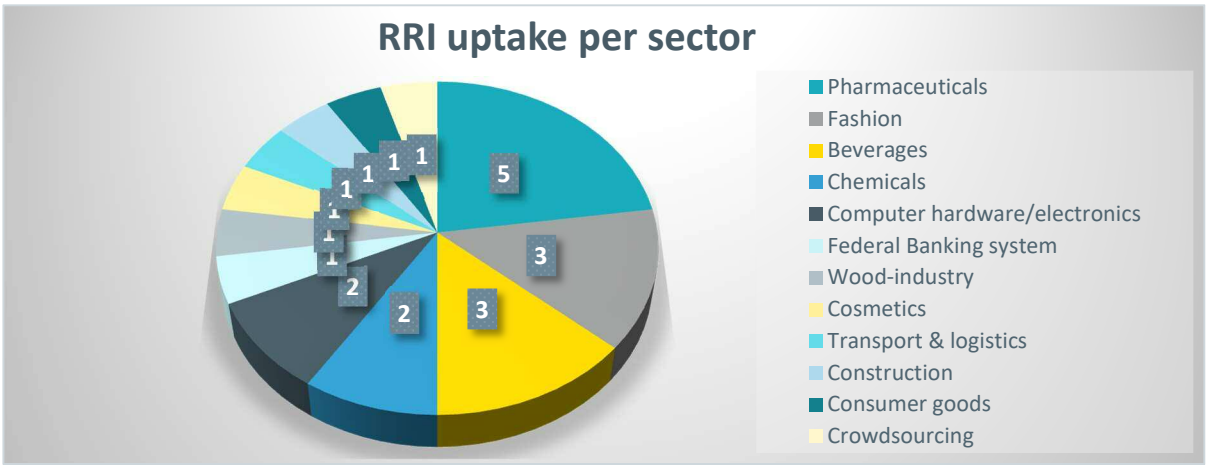

Figure 20: Number of companies identified through key search applying RRI per sector worldwide

Although many companies consider responsibility in the innovation process, only three out of the 22 investigated companies use the term "responsible research and innovation" or "responsible innovation".

Instead, the essence of RRI is oftentimes implemented and expressed in other terms, of which the most common one is "sustainable innovation". Companies that do not use this term describe their doing as responsibility/sustainability in the supply chain or in research and development. The notions to describe responsible business practices can be narrowed down to three main expressions: (corporate) sustainability, environmental/ social/corporate responsibility, or CSR and responsible/sustainable innovation.

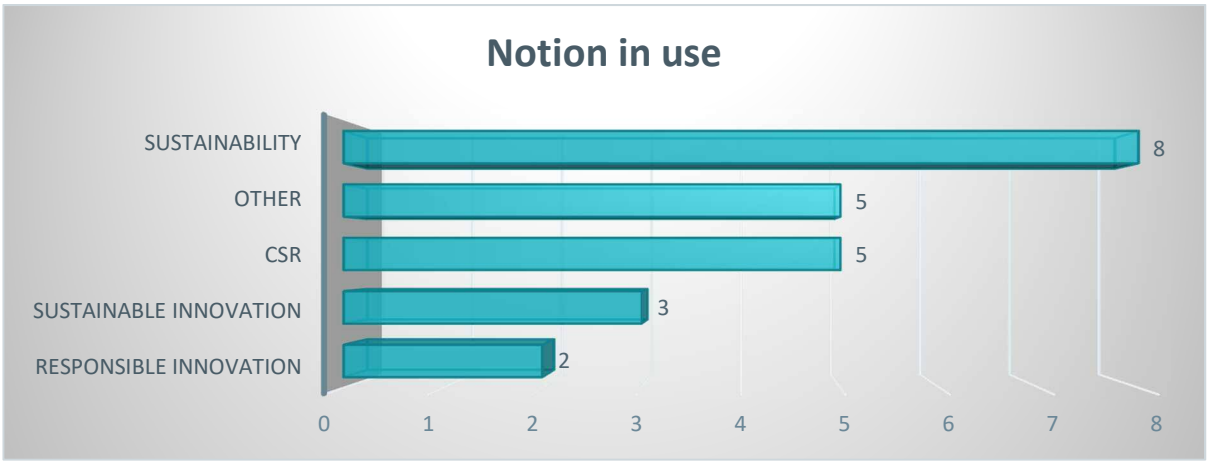

Figure 21: Notion used by companies to describe "responsible" activities

[49] https://www.businessoffashion.com/articles/right-brain-left-brain/sustainability-is-out-responsible-innovation-is-in-copenhagen-fashion-summit-environment-nike-patagonia
[50] Copenhagen Fashion Summit (2015)

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Thematic elements of RRI

When examining the companies, it can be observed that various elements of RRI are being tackled. Environmental topics that companies focus on in their sustainability strategies include: the climate, water, recycling and CO2 emissions. Apart from the sustainability element, which is omnipresent, the ethics element is represented the strongest

Companies intending to act ethically, try to improve labour conditions, workers' rights and human rights, implement codes of conduct and address anti-corruption, as well as health and safety issues. Public engagement is addressed through a strong stakeholder dialogue and community engagement. Moreover, gender (women, diversity, and inclusion) and open access dimensions are approached. Science education is not explicitly approached in any of the scanned company documents.

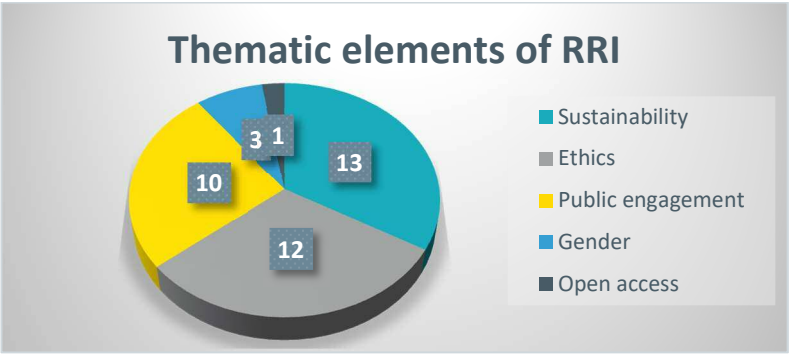

Figure 22: Thematic elements of RRI addressed by companies

NB: Some projects address more than one element, therefore the numbers do not add up to the total amount of projects.

4.2. Most sustainable and ethical companies in Europe

The rankings of the most sustainable companies ("The world's most sustainable companies" by Forbes[51]) and the most ethical companies ("2017 world's most ethical companies honorees" by Ethissphere[52]) offer an opportunity to receive insights into the uptake of RRI in companies that are already well-advanced in the field of corporate engagement.

The companies found via search engines show results that are rather overlapping with those of the 17 most ethical European companies and the 24 most sustainable European companies. They appear to be very similar in terms of their implementation of RRI elements and focus areas of responsible business practices.

The **use of the actual term, "Responsible Research and Innovation**", is very rare among these companies. However, many of them tackle the central meaning of RRI, as they implement at least one dimension of RRI in the innovation process or in their handling of the supply chain, by, for example, setting ethical standards in research and development or a supplier code of conduct. Generally, the terms "responsibility" and "sustainability" are used, in several variations, to describe a company's responsible acting.

[51] https://www.forbes.com/sites/kathryndill/2016/01/22/the-worlds-most-sustainable-companies-2016/#64405f8b2380

[52] http://worldsmostethicalcompanies.ethisphere.com/honorees/

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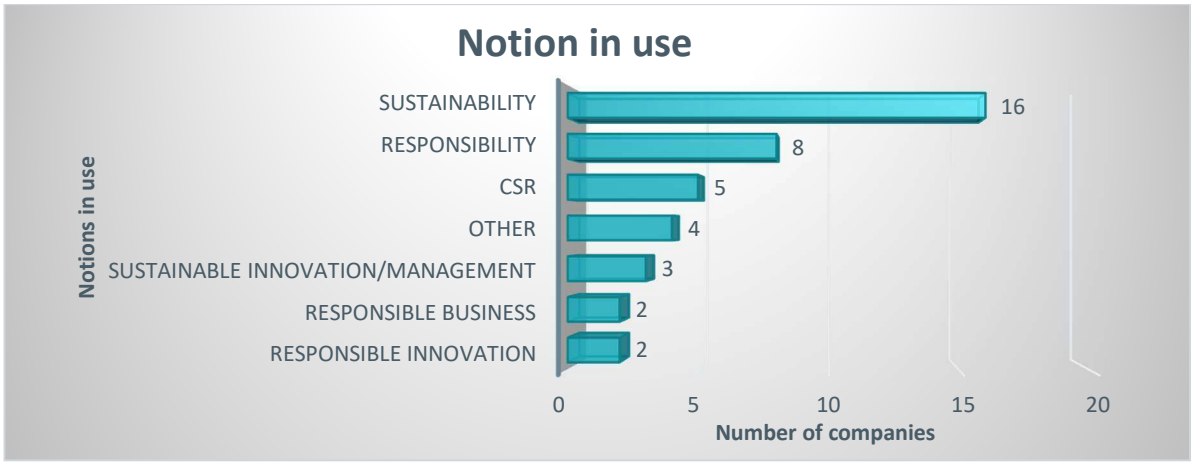

Figure 23: Notion used by companies to describe "responsible" activities

The most **common thematic elements of RRI** being addressed are public engagement and ethics, followed by gender, while open innovation and science education are hardly ever covered. Stakeholder engagement and community action primarily constitute the public engagement dimension, whereas codes of conduct, integrity, human rights engagement and transparency make up for the ethics dimension.

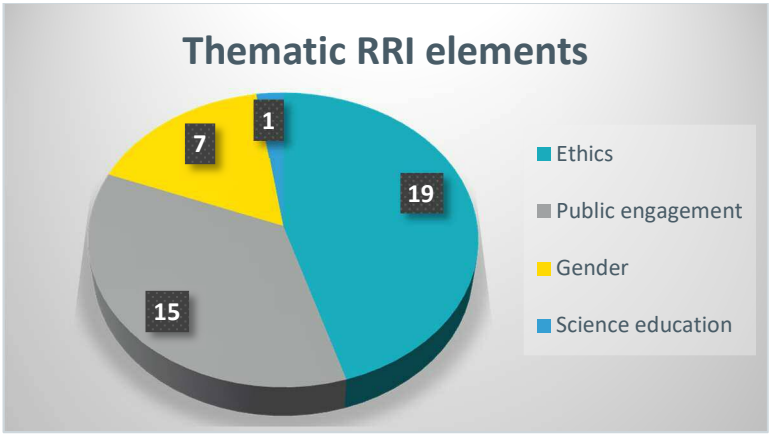

Figure 24: Thematic elements of RRI addressed by European companies identified through Forbes and Ethissphere

The **focus areas** of the companies' sustainability strategies can be mapped in five main categories: environment (climate, resources, water), society (corporate citizenship, community engagement), ethics (human rights, ethical business, ethical R&D), diversity (inclusion) and health & safety.

By contrast, the ten largest companies (Forbes[53]) do not exhibit such diverse focus areas. There seems to be a strong tendency towards environmental engagement and a disregard for other forms of engagement.

[53] https://www.forbes.com/sites/steveschaefer/2016/05/25/the-worlds-largest-companies-2016/#2872e1d345a6

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5. Conclusions

This report provides an overview of relevant activities, projects and initiatives regarding RRI in Europe and especially in industry. It maps out approaches, objectives and thematic priorities of publicly funded RRI projects at European level, and describes their spread across Europe via budget shares and numbers of participations. In addition, it provides information on privately funded industry initiatives that take up the notion of RRI or significant aspects of it. Special attention is paid to the industry sectors healthcare, nanotechnology and ICT, and the involvement of SMEs in RRI activities.

RRI is a term coined within the remit of EU research and innovation policy making and has thus to a large extent been discussed as an EU policy issue (cf. Owen et al. 2013). This requires that the concept be translated to other contexts, especially the much more focused space of industry. Within this space, SMEs have even more specific needs and logics, which RRI needs to link up with, if the concept and practice be successfully integrated in research and innovation activities, management, and outcomes.

On the one hand, it is encouraging in this regard that the EU has supported the propagation of RRI through its framework programmes, FP7 and H2020, which as the third largest budget item in the EU budget[54], has significant nudging power. This review finds that RRI is now integrated into European publicly-funded collaborative research in all three COMPASS key innovation fields, with healthcare being a particular frontrunner. Industrial RRI initiatives have focused on the food and fashion industries.

On the other hand, this review also finds that so far, EU funded projects have seen little or no involvement of industry/SMEs, either as target groups or partners. Moreover, different thematic elements of RRI have been covered unequally: while public engagement is very prominent, the elements open access and gender have seen little coverage. A concept that seems to provide a popular entry point for RRI in the context of industry seems to be “sustainability”.

Finally, we found little evidence of uptake in other industries beyond the ones mentioned in the previous paragraph.

In the following, we specify four more detailed conclusions that result from the analysis and are particularly relevant to the focal concern of this review, namely the participation and uptake of SMEs.

I. Little SME involvement in publicly funded RRI projects

Based on the assumption that societal challenges can only be solved through involving all societal actors, the European Commission is committed to raising the numbers of SMEs participating in the European Framework Projects. In the identified RRI projects, however, private-for-profit companies (PRCs) make up the second smallest group of actors who participate as project partners. Furthermore, the vast majority of the 12% of PRCs represented, consists of consultancies, service providers and independent research centres. The few research and innovation performing SMEs among the sample are confined to the biomedicine

[54] cf. Ex-post evaluation of the 7th Framework Programme, High Level Expert Group Report: https://ec.europa.eu/research/evaluations/pdf/fp7_final_evaluation_expert_group_report.pdf

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and telecommunications sector (i.e. sub-sectors of two of our three focal sectors, healthcare and ICT).

SMEs are seldom the target group of RRI projects. While almost 20% of the sampled projects showed a focus on industry in general, only six of the 89 publicly funded projects were specifically addressing SMEs. These six projects aim to provide SMEs with better instruments to implement RRI or focus on building capacity through training. Their output include creating business models, roadmaps, tools and policy recommendations.

This raises the following questions:

- What incentives can increase SMEs' interest to engage with responsibility issues in research and innovation?
- What can public research and innovation programs learn from private initiatives of large companies that aim to increase responsibility of businesses' research and innovation processes and output?
- How can policy mobilize SMEs who implicitly "do" responsible research and innovation without calling it "RRI"?

Existing research on other peripheral participant groups in EU framework programmes has shown that specific participation requirements (e.g. at least one SME in the consortium) rarely increase overall participation but tend to produce specialized organisations that end up being included into new projects for "quota" reasons – oftentimes such organisations do not attract a large part of the project budget and play only a minor role in the project[55]. However, recent RRI projects with a specific focus on industry and/or SMEs have taken more innovative approaches to developing incentives for SME participation (as partners, third parties or target group). Such incentives generally strive to leverage existing support structures for SMEs and provide financial or in-kind contributions to SMEs engaging with RRI (e.g. PRISMA and COMPASS). For the diffusion of the RRI concept and practice this seems to be a more promising avenue.

II. RRI projects show clear preference for Enabling and Industrial Technologies and immediate consumer relationships

Differentiation between target sectors of publicly funded RRI projects shows clear preference for what the European Commission defines as "Enabling and Industrial Technologies"[56]. The two equally largest groups of projects address either no technology or sector in particular or sectors that qualify as Enabling and Industrial Technologies: ICT[57], sustainable development[58] and nanotechnology[59]. Another large chunk of projects addresses healthcare issues[60]; with the healthcare and ICT sector often overlapping by foci on RRI in ICT for healthcare (applications).

[55] http://ec.europa.eu/research/swafs/pdf/pub_public_engagement/ki-04-17-578-en.pdf#view=fit&pagemode=none
[56] http://ec.europa.eu/programmes/horizon2020/en/h2020-section/leadership-enabling-and-industrial-technologies
[57] Including the Internet of Things, Big Data, information security, gaming, robotics, smart grids, etc.
[58] Including energy, food security, bio-economy, urban waste, liquid fuels, etc.
[59] Including nano-bio science and engineering.
[60] Including precision medicine, biomedical technologies, biopharmaceuticals, genetics, synthetic biology, etc.

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Publicly funded RRI projects that explicitly focus on industry as their target group are likewise mostly active in one of the key innovation fields ICT, healthcare and nanotechnology. The analysis of these projects shows a strong emphasis on addressing sustainability issues in these industries and on sectors that are characterized by immediate business to consumer relationships.

Privately funded industry initiatives show much larger topical variety. Identified companies operate in diverse sectors such as pharmaceuticals, fashion, beverages, the federal banking system, cosmetics and crowdsourcing.

This raises the following questions:

- How can public and private initiatives learn from each other?
- How can thematic agenda setting in different sectors become better aligned?
- Does the RRI concept need adaptation to be taken up in other sectors that are either less technology-intensive or less closely connected to the final consumer?

III. "Public engagement" and "ethics" are most prominent among the thematic elements of RRI

Responsible Research and Innovation is a multifaceted concept, which can be addressed and implemented in a variety of ways. While the majority of identified RRI projects aim to approach RRI in a holistic manner by addressing all thematic elements of RRI (gender, open access, public engagement, ethics, science education), others emphasize certain thematic elements, in particular. The thematic elements "public engagement" and "ethics" are most prominent, while "open access" and "gender" are little emphasized among the sample of RRI projects.[61]

Privately funded industry initiatives similarly indicate a focus on the thematic elements "public engagement" and "ethics". At the same time, the thematic elements "open access" and "science education" are almost non-existent in industry initiatives, which might be connected to a general disposition towards keeping vital information within the business, on the one hand, and a lack of perceived responsibility for science education, on the other.

This leads to the following topics to be discussed:

- Can industry awareness of, and openness towards, public engagement and ethical consideration serve as entry point to increase their application of other elements of RRI?
- How can perceived responsibility for training future research and development personnel be increased among industry actors?
- Can and should the concept of RRI be linked to already existing concepts and discourses by providing a regulatory framework and infrastructure?
- Is it desirable to promote the neglected thematic elements to increase the value of the thematic elements of RRI?

[61] The systematic scoping of FP7 and H2020 projects carried out within this project is based on an understanding of RRI as a holistic concept, meaning such projects are understood as "RRI projects" when they incorporate at least two of the five thematic elements; either in process set-up or (expected) project outcomes. It therefore excludes projects that focus on one thematic element of RRI only.

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IV. Sustainability issues are frequently addressed by RRI activities

Even though "sustainability" is not among the thematic elements of RRI as defined by the European Commission, 19 of the 89 publicly funded projects explicitly focus on sustainable development. Topics include bio-economy, responsible business, sustainable growth, energy, GMO food and food security, plant science, transport, liquid fuels and urban waste.

Privately funded industry initiatives often apply RRI principles with a focus on sustainability. Generally, the terms "responsibility" and "sustainability" are used, in several variations, to describe a company's responsible acting towards society and the natural environment. Focus areas of sustainability strategies often include thematic elements of RRI; such as community engagement, ethics, diversity/inclusion and health and safety issues.

The Expert Group Report on Policy Indicators for Responsible Research and Innovation (European Commission 2015) applies "sustainability" as one of eight indicators to measure levels of RRI and describes it as "*central to the Europe 2020 strategy of smart, inclusive and sustainable growth' to Horizon 2020 (and, consequently, RRI policy)*". Iatridis and Schröder (2016) make a case for linking RRI to established industry concepts such as Corporate Social Responsibility (CSR) in order to increase uptake by industry.

This raises the following questions:

- Can the sustainability approach, which is well known among large industrial players, serve as an entry point to improve uptake of RRI?
- Could sustainability be built upon to better align RRI with the related concept of Corporate Social Responsibility (RRI)?

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Annex I – List of European funded RRI projects

Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
1	ALT-FRAG	Alternative Framings for Gaming	Gaming, ICT	H2020 projects	732332			x			x	x			x		
2	ARK OF INQUIRY	Ark of Inquiry: Inquiry Awards for Youth over Europe	Science and research, youth awareness	FP7 projects	612252			x		x	x		x			x	
3	ASSET	ACTION PLAN ON SIS RELATED ISSUES IN EPIDEMICS AND TOTAL PANDEMICS	Epidemics, health	FP7	612236				x			x				x	
4	BigPicnic	Big Picnic:Big Questions - engaging the public with Responsible Research and Innovation on FoodSecurity	Food security	H2020 projects	710780			x			x		x	x		x	

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
5	Biofrontiers	Biofrontiers: Responsible innovation for tomorrow's liquid fuels	Liquid fuels	European Climate Foundation		x		x						x			
6	BIONET-WORKING	Bionetworking in Asia – A social science approach to international collaboration, informal exchanges, and responsible innovation in the life sciences	Biomedicine, clinical research	FP7 projects	283219			x				x				x	
7	BODEGA	BOrdDErGuArd - Proactive Enhancement of Human Performance in Border Control	Border control	H2020 projects	653676			x			x	x					
8	CANDID	Checking Assumptions aND promoting responsibility In smart Development projects	ICT	H2020 projects	732561			x							x		

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
9	CIFRA	Challenging the ICT Patent Framework for Responsible Innovation	ICT, patents	H2020 projects	731940					x					x		
10	CLoSER	Cementing Links between Science and society toward Engagement and Responsibility	Research, public engagement	H2020 projects	722749			x			x		x				
11	COMPASS	Evidence and opportunities for responsible innovation in SMEs	ICT, biomedicine, cyber security	H2020 projects	710543	x	x	x			x			x	x	x	x
12	CONSIDER	Civil Society Organizations in Designing Research Governance	Research, CSO participation	FP7	288928						x						
13	DESUR	Developing Sustainable Regions through Responsible SMEs	Responsible business	2007 - 2013 Interreg IVC		x	x	x						x			

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
14	EISRI II	European Intersectoral Summit on Research and Innovation -second edition- "The Role of the Media in Responsible Research and Innovation"	Science and research, communication and media	FP7 projects	332622			x			x		x				
15	ENERGIZING FUTURES	Energizing Futures: Investigating the Infusion of IT and Design into Novel Foresight Practices	Gaming, visualization, foresight methods	FP7 projects	629202									x			
16	ENERI	European Network of Research Ethics and Research Integrity (ENERI)	Research, ethics	H2020 projects	710184			x				x					
17	ENGAGE	Equipping the Next Generation for Active Engagement in Science	Science and research, teaching	FP7 projects	612269			x					x				

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
18	ENGAGE2020	Engaging Society in Horizon 2020	Science and research, public engagement	FP7	612281						x						
19	EnRRICH	Enhancing Responsible Research and Innovation through Curricula in Higher Education (EnRRICH)	Science and research, teaching	H2020 projects	665759			x			x		x				
20	EPINET	Integrated Assessment of Societal Impacts of Emerging Science and Technology from within Epistemic Networks	Wearable sensors, synthetic meat, smart grids, TA methods	FP7 projects	288971			x						x	x	x	
21	e-Sides	Ethical and Societal Implications of Data Sciences	Big data, data economy	H2020 projects	731873			x			x	x			x		
22	ESOF2016	EuroScience Open Forum 2016 (Manchester)	Science and research	H2020 projects	699538			x			x						

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
23	ETHICSWEB	Inter-connected European information and documentation system for ethics and science: European Ethics Documentation Centre	Science and ethics	FP7	217817					x		x	x				
24	EXPLORATHON-4D	EXPLORATHON'16 and EXPLORATHON'17 - EUROPEAN RESEARCHERS' NIGHT SCOTLAND	Science and research	H2020 projects	722967			x		x	x		x				
25	FaRInn	Facilitating Responsible Innovation in SEE countries	Governance	2007 - 2013 South East Europe		x		x		x		x		x			
26	FAWORIT 2016-2017	Fascinating World of Researchers in the Age of Technology 2016/2017 - The New Generation of Innovators	Research, promotion	H2020 projects	722562	x	x	x	x		x		x				

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
27	FoTRRIS	Fostering a Transition towards Responsible Research and Innovation Systems	Research and innovation, governance	H2020 projects	665906			x			x						
28	GCOF	A stepping stone approach towards the Genetics Clinic of the Future	Genetics, health	H2020 projects	643439						x	x				x	
29	GEDII	Gender Diversity Impact – Improving research and innovation through gender diversity	Research and gender	H2020 projects	665851			x	x		x						
30	GENIS LAB	The Gender in Science and Technology LAB	Nanotechnology, physics, ICT, gender	FP7	266636				x						x		x
31	GRACE	GMO Risk Assessment and Communication of Evidence	GMOs, GM food	FP7	311957					x		x		x		x	

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
32	GREAT	Governance of REsponsible innovATion	Research, governance	FP7 projects	321480			x			x						
33	HBP	The Human Brain Project	Health, ICT, neuroscience	FP7 projects	604102			x							x	x	
34	HEIRRI	HEIRRI (Higher Education Institutions and Responsible Research and Innovation)	Research	H2020 projects	666004			x		x	x		x				
35	HIVACAR	Evaluating a Combination of Immune-based Therapies to Achieve a Functional Cure of HIV Infection	Health, HIV research	H2020 projects	731626			x								x	
36	HYPATIA	STEM education for girls	STEM, gender	H2020	665566				x		x		x				
37	IRENE	Invitation to Researchers' Night 2016-2017 HEllas	STEM, research promotion	H2020 projects	722935			x			x						

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
38	IRRESISTIBLE	Including Responsible Research and innovation in cutting Edge Science and Inquiry-based Science education to improve Teacher's Ability of Bridging Learning Environments	Science and research, teaching	FP7 projects	612367			x					x				
39	JERRI	Joining Efforts for Responsible Research and Innovation	Research	H2020 projects	709747			x									
40	KARIM	Knowledge Acceleration and Responsible Innovation Meta-network	ICT, SME innovation	2007 - 2013 North West Europe		x	x	x			x				x		
41	MadridERN 2016-2017	Researchers, moving Europe forward. Meet them, join them!	Research	H2020 projects	721631			x			x		x				

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
42	MARINA	Marine Knowledge Sharing Platform for Federating Responsible Research and Innovation Communities	Marine issues	H2020 projects	710566			x		x	x						
43	NANO2ALL	Nanotechnology Mutual Learning Action Plan For Transparent And Responsible Understanding Of Science And Technology	Nanotechnology	H2020 projects	685931			x			x						x
44	NANODIODE	Developing Innovative Outreach and Dialogue on responsible nanotechnologies in EU civil society	Nanotechnology	FP7 projects	608891			x			x						x
45	NANOPINION	Monitoring public opinion on Nanotechnology in Europe	Nanotechnology	FP7	290575					x	x						x

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46	NANOPLAT	Development of a Platform for Deliberative Process on Nanotechnology in the European Consumer Market	Nanotechnology	FP7	217778					x	x	x		x			x
47	NERRI	Neuro-Enhancement: Responsible Research and Innovation	Neuro-enhancement	FP7 projects	321464			x			x					x	
48	NMP-DELA	NANOSCIENCES, NANOTECHNOLOGIES, MATERIALS AND NEW PRODUCTION TECHNOLOGIES DEPLOYMENT IN LATIN AMERICAN COUNTRIES	Nanotechnology	FP7	608740	x				x			x	x		x	x

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
49	NUCLEUS	NUCLEUS - New Understanding of Communication, Learning and Engagement in Universities and Scientific Institutions	Science and research	H2020 projects	664932			x						x			
50	OECD BNCT	Project on Open and Responsible Innovation for Health	Human biology – including ageing, reproduction, cellular repair, immunity, neurological function	STP & BNCT							x	x			x	x	
51	OPENRESEARCHERS	Open Researchers	Science and research	H2020 projects	722930			x			x		x				
52	PACITA	Parliaments and Civil Society in Technology Assessment	Technology assessment	FP7	266649					x	x						

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53	PARRISE	Promoting Attainment of Responsible Research and Innovation in Science Education	Science and research	FP7 projects	612438			x			x		x				
54	PE2020	Public Engagement Innovations for Horizon 2020	Science and public engagement	FP7	611826						x						
55	PERFORM	Participatory Engagement with Scientific and Technological Research through Performance	STEM	H2020 projects	665826			x					x				
56	PIER	Public Involvement with Exhibition on Responsible research and innovation	Science and public engagement, ocean research	FP7 projects	632084			x			x		x	x			

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
57	PlantHUB	PlantHUB - Boosting technology transfer and responsible research and innovation (RRI) in plant sciences	Plant science	H2020 projects	722338	x	x	x					x	x			
58	PRISMA	Piloting RRI in Industry: a roadmap for tranSforMAtive technologies	Nanotechnology, synthetic biology, IoT, automated cars	H2020 projects	710059	x		x	x		x				x	x	x
59	PROGRESS	PROmoting Global REsponsible research and Social and Scientific innovation	Research	FP7 projects	321400			x			x						
60	PROGRESSIVE	PROGRESSIVE STANDARDS AROUND ICT FOR ACTIVE AND HEALTHY AGEING	ICT, AHA, health	H2020 projects	727802			x			x	x			x	x	

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61	PROSO	Promoting societal engagement under the terms of RRI	Nanotechnology, food & health, bio-economy	H2020 projects	665947	x		x			x			x		x	x
62	ProteinFactory	Engineering of new-generation protein secretion systems	Recombinant proteins	H2020 projects	642836	x	x	x								x	
63	QuantERA	QuantERA ERA-NET Cofund in Quantum Technologies	Quantum Technologies	H2020 projects	731473	x		x									
64	RACE2050	Responsible innovation Agenda for Competitive European transport industries up to 2050	Transport	FP7 projects	314753	x								x			
65	RECODE	Policy ReCommendations for Open Access to Research Data in Europe	Open access, data dissemination	FP7	321463					x	x						

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
66	REELER	Responsible Ethical Learning with Robotics	Robotics, ICT	H2020 projects	731726						x	x			x		
67	RES-AGORA	Responsible Research and Innovation in a Distributed Anticipatory Governance Frame. A Constructive Socio-normative Approach	Governance	FP7 projects	321427			x				x					
68	RESPONSIBILITY	Global Model and Observatory for International Responsible Research and Innovation Coordination	Science and cooperation	FP7 projects	321489			x			x						
69	RESPONSIBLE-INDUSTRY	Responsible Research and Innovation in Business and Industry in the Domain of ICT for, Health, Demographic Change and Wellbeing	ICT, health demographic change	FP7 projects	609817	x		x			x				x	x	

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70	RN2013CZ	The Researchers' Night 2013 in the Czech Republic	Energy	FP7 projects	609796			x			x		x	x			
71	RRI TOOLS	RRI TOOLS, a project to foster Responsible Research and Innovation for society, with society.	Science and public engagement	FP7 projects	612393	x		x			x						
72	RRI-ICT Forum	Supporting and promoting responsible research and innovation in ICT	ICT	H2020 projects	644200			x		x					x		
73	RRI-Practice	Responsible Research and Innovation in Practice	Governance	H2020 projects	709637			x									

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
74	SATORI	Stakeholders Acting Together On the ethical impact assessment of Research and Innovation	Research and innovation, ethics	FP7 projects	612231	x					x	x					
75	SCILIFE	Science in everyday life	Science and public engagement	H2020 projects	723006			x			x						
76	SID	Science in Dialogue - Conference during the Danish EU presidency	Science and public engagement	FP7 projects	305036			x									
77	SIFORAGE	Social Innovation on active and healthy ageing for sustainable economic growth	Health, AHA	FP7 projects	321482	x					x	x				x	
78	SiS.net2	Network of Science with and for Society National Contact Points	Science and public engagement	H2020 projects	635656			x			x						

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79	SIS-RRI	Science, Innovation and Society: achieving Responsible Research and Innovation	Science and public engagement	H2020 projects	635149			x									
80	SMART-map	RoadMAPs to Societal Mobilisation for the Advancement of Responsible Industrial Technologies	Precision medicine, 3D printing in the biomedical field, synthetic biology	H2020 projects	710500	x		x			x					x	
81	SPARKS	SPARKS	Science and public engagement, health	H2020 projects	665825			x			x		x			x	
82	STARBIOS 2	Structural Transformation to Attain Responsible BIOSciences	Biosciences	H2020 projects	709517			x									

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
83	SYN-ENERGENE	Synthetic biology – Engaging with New and Emerging Science and Technology in Responsible Governance of the Science and Society Relationship	Synthetic biology	FP7 projects	321488	x		x		x	x			x		x	
84	TRUST	Creating and enhancing TRUSTworthy, responsible and equitable partnerships in international research	Governance, ethics in research	H2020	664771	x					x	x					
85	U4IoT	User Engagement for Large Scale Pilots in the Internet of Things	IoT	H2020 projects	732078			x		x	x	x	x	x	x		

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Project number	Acronym	Title	Topic	Funding programme	Project ID (FP7, H2020)	Industry	Industry: SME focus	Holistic approach	Gender	Open access	Public engagement	Ethics	Science education	Sustainability	ICT	HEALTHCARE	NANOTECHNOLOGY
86	UNCOVER	Evaluation and development of measures to uncover and overcome bias due to non-publication of clinical trials	Health, clinical studies	FP7	282574					x	x					x	
87	VIRT-EU	Values and ethics in Innovation for Responsible Technology in EUrope	IoT	H2020 projects	732027							x			x		
88	VOICES	Voices for Innovation	Urban waste	FP7	612210					x	x			x			
89	WEAR	Wearable technologists Engage with Artists for Responsible innovation	Wearable technology, ICT	H2020 projects	732098	x					x	x			x		

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Annex II- List of RRI related industry initiatives

	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
1	Avnet	Electronics	USA	https://www.avnet.com/wps/portal/us/company/corporate-social-responsibility/overview/	CSR			x	x		x
2	Barkat Pharmed & Co	Pharmaceuticals	Iran	http://www.bpharmed.com/en/responsiblity/	Social responsibility				x		x
3	Bayer	Pharmaceuticals	Germany	https://www.bayer.com/en/sustainability.aspx	Sustainability, CSR		x	x			x
4	Coca Cola Company	Beverages	USA	http://www.coca-colacompany.com/innovation/sustainability	Sustainability	x			x		x
5	Columbia Forest Products (CFP)	Wood-industry	USA	http://www.columbiaforestproducts.com/2015/05/29/innovate-responsibly/#	Sustainability						x
6	Dell	Computer hardware	USA	http://www.dell.com/learn/us/en/uscorp1/cr?c=us&l=en&s=corp&cs=uscorp1	CSR	x			x		

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
7	H&M	Fashion	Sweden	http://sustainability.hm.com/en/sustainability/about/hm-conscious/about-hm-conscious.html#cm-menu	Sustainability						x
8	Heineken	Beverages	The Netherlands	http://www.theheinekencompany.com/sustainability	Sustainability			x	x		x
9	Hochtief	Construction	Germany	http://www.hochtief.com/hochtief_en/3700.jhtml	Sustainability, CSR			x			x
10	Huntsman Corporation	Chemicals	USA	http://www.huntsman.com/advanced_materials/a/Sustainability/Advanced%20Materials%20Sustainable%20Innovation http://www.huntsman.com/corporate/a/Sustainability	Sustainable innovation			x			x
11	ICL Group	Chemicals	Israel	http://www.icl-group.com/sustainability/	Sustainability				x		x
12	InnoCentive, EMC, EDF	Crowdsourcing	USA	https://www.innocentive.com/				x			
13	KMR group	Biopharmaceuticals	USA	https://kmrgroup.com/r-d/	Ethical R& D				x		

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
14	La Guadiense	Wine	Italy	http://www.laguardiense.it/en/projects.php	Sustainability			x			x
15	L'Oreal	cosmetics	France	http://www.loreal.com/research-and-innovation/our-innovation-model/the-pillars-of-responsible-innovation	Responsible innovation				x		x
16	Maersk	Transport & logistics	World	http://www.maersk.com/en/hardware/innovation/sustainable-innovation	Sustainable innovation				x		x
17	NIKE	Fashion	USA	http://about.nike.com/pages/sustainable-innovation	Sustainable innovation			x			
18	OCC Innovation Initiative	Federal Banking System	USA	https://www.occ.treas.gov/topics/responsible-innovation/index-innovation.html	Responsible innovation			x			
19	Orion	Pharmaceuticals	Finland	http://www.orion.fi/en/Orion-group/Sustainability/	CSR				x		
20	Patagonia	Fashion	USA	http://csrcentral.com/patagonia-the-clothing-company-with-a-revolutionary-approach-to-csr-sustainability/	CSR				x		

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
21	Sanofi	Pharmaceuticals	France	http://en.sanofi.com/csr/corporate_responsibility.aspx	Corporate sustainability			x			
22	Unilever	Consumer goods	The Netherlands / UK	https://www.unilever.com/sustainable-living/	Sustainable living	x			x		

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Annex III- European companies on Forbes' list

	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
1	BMW	Automobiles	Germany	https://www.bmwgroup.com/en/responsibility/sustainability-at-the-bmw-group.html	Innovations for society and environment, responsibility			x	x		x
2	Dassault Systemes	Software	France	https://www.3ds.com/stories/sustainable-innovation/	Sustainable innovation						x
3	Outotec	Construction & Engineering	Finland	http://www.outotec.com/en/Sustainability/Responsible-business-practices/	Sustainable solutions, responsible business practises			x			x
4	Adidas	Textiles, Apparel & Luxury Goods	Germany	http://www.adidas-group.com/en/sustainability/managing-sustainability/general-approach/	Sustainable innovation						x
5	Enagas	Gas Utilities	Spain	http://www.enagas.es/enagas/en/Sostenibilidad/Plan_de_Gestion_Sostenible	Sustainable management			x	x		x
6	Danske Bank	Banks	Denmark	http://www.danskebank.com/en-uk/CSR/Pages/CSR.aspx	Responsibility				x		x

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
7	Reckitt Benckiser Group	Household Products	United Kingdom	https://www.rb.com/responsibility/	Sustainable and responsible growth	x			x		
8	Centrica	Multi-Utilities	United Kingdom	https://www.centrica.com/responsibility	Responsibility	x			x		x
9	Schneider Electric	Electrical Equipment	France	http://www.schneider-electric.com/en/about-us/sustainability.jsp	Sustainability, responsibility	x			x		x
10	L'Oreal	Personal Products	France	http://www.loreal.com/research-and-innovation/our-innovation-model/the-pillars-of-responsible-innovation	Responsible innovation	x		x	x		x
11	Kesko	Food & Staples Retailing	Finland	http://www.kesko.fi/en/company/responsibility/	Responsibility, CSR			x			x
12	Galp Energia	Oil, Gas & Consumable Fuels	Portugal	http://www.galpenergia.com/EN/sustainability/Paginas/Sustainability.aspx	Sustainability			x	x		x
13	Statoil	Oil, Gas & Consumable Fuels	Norway	https://www.statoil.com/en/how-and-why/sustainability.html	Sustainability			x	x		x

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
14	Novo Nordisk	Pharmaceuticals	Denmark	http://www.novonordisk.com/sustainability.html	Sustainability				x		x
15	H&M	Specialty Retail	Sweden	http://about.hm.com/en/sustainability.html	Sustainability						x
16	Marks& Spencer	Multiline Retail	United Kingdom	http://corporate.marksandspencer.com/plan-a	Plan A, sustainability				x		x
17	Koninklijke Philips	Industrial Conglomerates	Netherlands	http://www.philips.com/a-w/about/sustainability.html	Sustainability						x
18	Koninklijke DSM	Chemicals	Netherlands	https://www.dsm.com/corporate/sustainability.html	Sustainability, social and environmental responsibility			x			x
19	Storebrand	Insurance	Norway	https://www.storebrand.no/en/sustainability	Sustainability						x
20	UPM-Kymmene	Paper & Forest Products	Finland	http://www.upm.com/Responsibility/fundamentals/Reporting/Pages/default.aspx	Responsibility			x	x		x

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
21	Diageo	Beverages	United Kingdom	http://www.diageo.com/en-row/CSR/Pages/default.aspx	Responsibility, sustainability & responsibility strategy			x	x		
22	BT Group	Diversified Telecommunication	United Kingdom	http://www.btplc.com/Purposefulbusiness/	Purposeful business	x			x		x
23	DNB	Banks	Norway	https://www.dnb.no/en/about-us/corporate-social-responsibility.html	CSR	x					x
24	Eni	Oil, Gas & Consumable Fuels	Italy	https://www.eni.com/en_IT/sustainability/our-responsible-model.page	Sustainability			x	x		x

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Annex IV- European Companies on Ethissphere's list

	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
1	The Rezidor Hotel Group	Lodging & Hospitality	Belgium	http://www.rezidor.com/phoenix.zhtml?c=205430&p=resp	Responsible business			x	x		x
2	Capgemini	Consulting Services	France	https://www.capgemini.com/our-corporate-responsibility-sustainability-approach	CSR			x	x		x
3	L'ORÉAL	Health & Beauty	France	http://www.loreal.com/research-and-innovation/our-innovation-model/the-pillars-of-responsible-innovation	Responsible innovation	x		x	x		x
4	Schneider Electric	Diversified Machinery	France	http://www.schneider-electric.com/en/about-us/sustainability/ethics.jsp	Responsibility and ethics				x		x
5	Accenture	Consulting Services	Ireland	https://www.accenture.com/ca-en/strategy-index	Corporate citizenship	x					x
6	DCC	Conglomerate	Ireland	http://www.dcc.ie/sustainability.aspx	Sustainability			x	x		x
7	illycaffé spa	Food, Beverage & Agriculture	Italy	http://www.illy.com/wps/wcm/connect/en/company/sustainable-value-report	Sustainability, responsible management						x

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
8	PKN ORLEN S.A.	Oil & Gas, Renewables	Poland	http://www.orlen.pl/EN/CSR/Pages/default.aspx	CSR	x		x	x		x
9	EDP - Energias de Portugal, SA	Energy & Utilities	Portugal	http://www.edp.pt/EN/sustentabilidade/Pages/HPSustentabilidade.aspx	Sustainability	x		x	x		x
10	IBERDROLA	Energy & Utilities	Spain	https://www.iberdrola.com/sustainability/society/disadvantaged-groups/electricity-all-programme	Sustainability			x	x		x
11	H & M Hennes & Mauritz AB	Apparel	Sweden	http://about.hm.com/en/sustainability.html	Sustainability, conscious actions						x
12	Volvo Car Group	Automotive	Sweden	http://www.volvocars.com/intl	Sustainability, responsible and ethical business practices				x		x
13	TE Connectivity	Electronics & Semiconductors	Switzerland	http://www.te.com/usa-en/about-te/corporate-responsibility.html	CSR			x	x		x
14	Delphi Automotive PLC	Automotive	UK	http://delphi.com/search?indexCatalogue=master%2Dsearch%2Dindex&searchQuery=responsible+innovation&wordsMode=0	Responsibility	x		x	x		x

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	Company	Industry	Region	Website	Notion in use	Gender	Open access	Public engagement	Ethics	Science education	Sustainability
15	Marks & Spencer Plc	Retail	UK	http://planareport.marksandspencer.com/	Sustainability, Plan A						x
16	National Grid	Energy & Utilities	UK	http://www2.nationalgrid.com/responsibility/designing/	Responsible business			x			x
17	Northumbrian Water Group	Water & Sewerage Utility	UK	http://www.nwg.co.uk/Corporateresponsibility.aspx	Corporate responsibility			x	x		x

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