TEACHING AND LEARNING RESPONSIBLE RESEARCH AND INNOVATION

Higher Education Institutions
& Responsible Research and Innovation

By the HEIRRI consortium

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TEACHING RESOURCES TO TRAIN ON RESPONSIBLE RESEARCH AND INNOVATION

This document presents the teaching resources of the European project HEIRRI (Higher Education Institutions & Responsible Research and Innovation) and explains how to use them in the endeavour of teaching Responsible Research and Innovation (RRI) in universities and higher education institutions (HEI).

From the HEIRRI project we encourage professors, university authorities, researchers, managers, politicians and all other people interested in higher education to explore the HEIRRI resources, adapt them to their contexts, edit them freely, try them out and integrate them in their teaching practices.

Although we find varied views about what RRI is and how it should be implemented, all different perspectives share the idea that it is necessary that the science and technology system guarantees a greater commitment with society, a redistribution of its actors and their roles, a reflection on the impacts that today's decisions may have in the future, and a better transparency and openness in the research and innovation processes.

Future researchers and engineers, nowadays university students, should acquire during their academic experiences the knowledge and skills needed to work responsibly. Critical awareness and a sense of social responsibility are not additional skills to be casually patched onto research and innovation processes. To be successfully put into practice, ideas of RRI should be fostered and developed throughout the formative process of higher education.

The ten programmes created by HEIRRI, together with all the different training materials that have been elaborated to implement them, are online and in open access. These resources give higher education institutions the tools to strengthen their researchers' and innovators' capacity for anticipation, reflexivity and engagement; aiming to train citizens and not just only highly skilled workers

Moreover, during the creation of these resources, HEIRRI organised workshops, talks and more than 15 pilots in different settings. All these activities have involved professionals working on higher education institutions, deans and professors of universities, and other relevant key stakeholders of RRI and education. Together with the training programmes, this involvement represents another way through which HEIRRI has contributed to the integration of RRI in higher education institutions: by raising awareness with key actors.

The European Commission defined a framework of six key issues for the development of RRI (public engagement, gender equality, science education, ethics, open access and governance). HEIRRI teaching materials refer to these six key issues and go beyond them, acknowledging the need for RRI to be critical, transformative within its environment, anticipative of future

needs, inclusive with the different stakeholders involved, reflexive about its actions and consequent effects, and responsive to reach new approaches and knowledge. RRI is a revolutionary concept with the aspiration to transform research and innovation.

Public Engagement activity in Steno Museum, Aarhus. November 2017

HEIRRI CONSORTIUM AND ADVISORY BOARDS

A global scope and expertise on RRI is provided by the HEIRRI consortium, formed by 9 partners from 6 European countries and involving 4 Higher Education Institutions: Pompeu Fabra University (UPF), University of Bergen (UiB), Aarhus University (AU), University of Split (UNIST), the Institute for Advanced Studies (IHS), the European network of science centres and museums (Ecsite), ”la Caixa” Foundation (FBLC), a private company specialised in R&I (Innovatec), and the Catalan Association of Public Universities (ACUP), who chairs GUNi, the Global University Network for Innovation, with 208 universities in 78 countries.

To guarantee that the HEIRRI programmes and materials are easily understandable, of high quality and useful for strategic sectors, HEIRRI has counted with three key Advisory Boards:

1. Multidisciplinary Contents Council (MCC): assures that the learning programmes and materials address all the key issues in a useful and methodologically solid way, and have valid and high standard systems of accreditation and qualification.

2. Science Communication & Internationalisation Advisory Board (SCIAB): contributes to the quality of the "public engagement" and "science communication" key issues, and has help spread the word of HEIRRI via the different networks and platforms they belong to.

3. Business & Entrepreneurship Advisory Board (BEAB): guarantees the participation of the industry sector, mainly by sharing experiences and cases.

In order to incorporate the experience of essential stakeholders, experts and practitioners of RRI into HEIRRI’s programmes and materials, a Multistakeholder Forum has been established. Both online and offline fora create a real dialogue on the integration of RRI into higher education, raising awareness as well as presenting an online Open Access space to stimulate the integration of RRI in professional careers and facilitate a discussion about RRI and everyday routines of HEI.

The HEIRRI consortium

Universitat Pompeu Fabra Barcelona

SCS Science, Communication and Society Studies Centre

"la Caixa" Foundation

ecsite EUROPEAN NETWORK SCIENCE CENTRES & MUSEUMS

AARHUS UNIVERSITY

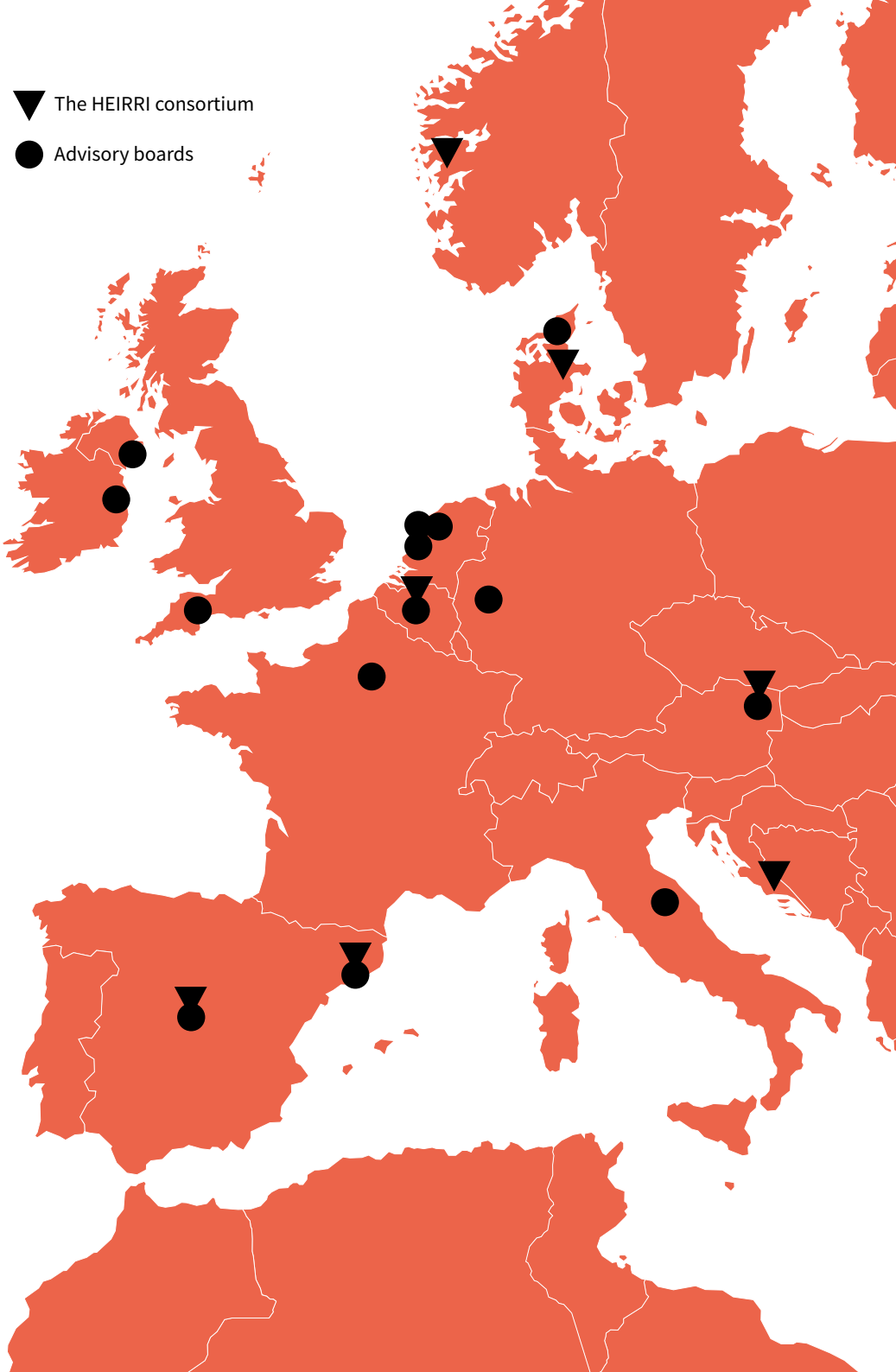
ACUP ASSOCIACIÓ CATALANA D'UNIVERSITATS PÚBLIQUES

UNIVERSITY OF BERGEN

Innovatec

Institut für Höhere Studien Institute for Advanced Studies Vienna

Sveučilište u Splitu



STATE OF THE ART REVIEW

Multiple ways are required to teach RRI in different educational contexts. In order to understand these processes and practices, prior to the elaboration of the programmes and materials, HEIRRI carried out a State of the Art review of RRI. This review focused on higher education experiences, having the 6 key issues of RRI as an initial framework, that later included a variety of elements in teaching and learning RRI found in different literature and evidence from diverse backgrounds.

The State of Art review compiled heterogeneous materials such as academic publications, educational materials, and "grey" literature like project reports and policy documents,among others. The review required a strategic search and the use of a variety of methods as literature research, interviews, workshops and web-based surveys.

The development of this review provided an overview of existing practises, exemplary cases and other documentation of RRI training in higher education that were

later implemented in the design and development of the HEIRRI courses and training materials. The inventory was obtained from the collaboration of the consortium with the Stakeholder Forum and the three Advisory Boards. The compilation has been published online as a HEIRRI resource.

Components of the review methodology

Recommendations from the review:

• Developing critical thinking: Student of RRI must be able to critically question what constitutes good and conscientious R&I within their scientific domain, keeping science responsible and also ensuring that research is not oblivious towards societal values and preferences. In addition, reflexive capacity is crucial for understanding the role and responsibilities of each field of research.

• Acknowledging the interrelationship in academic domains: RRI teaching should foster reflection about the interrelatedness of the students' own academic domain and skills in relation with other areas of science. In addition, to guide the students' abilities to collaborate and coproduce knowledge with researchers and professionals outside their own field, combining insights from across disciplines.

• About the relationship teacher-student: To understand diverse perspectives on RRI topics, traditional academic hierarchies should be modified, placing the teacher as a facilitator that enhances the voluntary participation and debate among students. This approach will promote an environment where students can reach their own conclusions and provide valuable contributions to the debate.

• Barriers for teaching RRI: Some of the most common obstacles for the development of RRI educational training in HEI are the lack of support at management levels and the few institutional incentives for the individual researcher to engage with RRI, among others.

Results from the review are described in Mejlgaard, N. et al (1). It connects the Aristotelian concept of

phronesis and RRI teaching, arguing that the first encompasses key properties of the learning objectives of the latter.

Selected inspiring practices: the HEIRRI database

The HEIRRI Consortium chose 23 heterogeneous cases from the State of the Art review that best illustrated the conclusions of the review, and grouped them into the HEIRRI Database. Each entree in the Database has been summarized and described in a way that relates to RRI teaching and learning, defining its pedagogical methods, academic domain, educational levels and its relation to the key areas of RRI.

The Database includes EU-projects related to RRI, entries related to different teaching/pedagogical approaches in HEIs, programmes and courses taught at universities concerning RRI, and policy documents and reports. The Database is available online.

(1) Mejlgaard, N., Christensen, M.V., Strand, R., Buljan, I., Carrió, M., Cayetano Giralt, M., Griessler, E., Lang, A., Marušić, A., Revuelta, G., Rodríguez, G., Saladié, N., Wuketich, M. Teaching Responsible Research and Innovation: A Phronetic Perspective. Sci Eng Ethics (2018). https://doi.org/10.1007/s11948-018-0029-1

Students from the Summer School celebrated in Barcelona (Universitat Pompeu Fabra). September 2017

HEIRRI TRAINING PROGRAMMES

The HEIRRI training programmes are complete courses or modules that can be adapted to different contexts and audiences in order to teach RRI in higher education. The project includes a set of specific activities and guidelines for different educational levels (Bachelor, Master, PhD), as well as in certain contexts (train the trainers, summer courses, MOOC). With a view to implement these programmes worldwide, especially across Europe, they contain a syllabus that is aligned with the formal requirements of HEI curricula as defined by the European Credit Transfer System (ECTS), as well as other accreditation systems and quality standards.

End users (professors, teachers, trainers) are encouraged to consider the proposed programmes to teach RRI. Each programme has been designed so that it could be adapted to different HEI contexts, considering different resources, institutional curricula structures, and varied target groups. It is important to take into account that RRI teaching requires a level of commitment from the institution, assuring an educational context were RRI will not be reduced to mere direct instruction classes and teaching-to-the-test, but focusing on student-centred learning methods.

For its practical implementation, each course details a schedule of different parts, teaching contents and assessment methods. Materials have been designed to implement the programmes step by step, in order to reach the desired objectives and learning outcomes.

Training programmes are generic to a certain extent and offer flexibility, being easily adaptable to different circumstances. For instance, some programmes can be used as individual modules to be integrated in a course, while others are designed so that they can be stand-alone events. They can also be used as support to prepare and conduct a complete course on RRI or modify existing ones. It is recommended to adapt each programme so that it encourages a challenging debate with a heterogeneous and interdisciplinary group of participants.

Each HEIRRI programme includes its own student-centred assessment methods to evaluate if students have met the desired learning outcomes.

Bachelor's level	Studying Responsibility: A Module-Based Integration of RRI into bachelor's Programme"
Master's level	Doing and Experiencing Dialogical Reflection on Research and Innovation
	Enhance your Thesis
PhD level	Responsible PhD: RRI and PhD Research Projects
	Supporting RRI: Developing RRI Guidelines for PhD Candidates
Academic and non-academic HEI members	Teaching Responsible Research and Innovation in Higher Education
	Facilitating Reflection on Responsible Research and Innovation
Summer Course	Considering Responsible Research and Innovation by Design
MOOCs	Concepts and Practice of Responsible Research and Innovation
Secondary school teachers in training	Science open to society, Schools open to science

Bachelor's programme

"Studying Responsibility: A Module-Based Integration of RRI into bachelor's Programme" offers future researchers and undergraduate students, training in RRI at the beginning of their higher education career, introducing them to the various concepts, ideas, rationales, and aims of Responsible Research and Innovation (RRI).

Programme	Studying Responsibility: A Module-Based Integration of RRI into bachelor's Programmes.
Cycle	EHEA First cycle EQF level: 6 Degree level: Bachelor
Year of study	We suggest integrating the modules into courses from the second semester or third trimester (second half/final third of the first year) onwards until the final year of the studies.
Number of ECTS credits	2.0 ECTS credits (0.5 ECTS credits per module, 4 modules in total; workload of altogether 50 to 60 hours)
Learning outcomes (LO)	1. Explain what research and innovation means in their respective field of study. 2. Explain different concepts, ideas, relevance, and aims of (RRI). 3. Relate research and innovation processes in their own field and the role of responsibility in these processes. 4. Discuss the relationship between science, research, innovation, and society. They will be able to identify the potential impact of science/ research/innovation on individuals, groups, or society as a whole.

Master's programmes

In a graduate level of education, students focus on specific topics of their fields, which might produce a loss of perspective with the wider society. HEIRRI aims that master's students reflect about society beyond their "core" fields, for which two specific programmes have been designed: "Doing and Experiencing Dialogical Reflection on Research and Innovation" and "Enhance your thesis".

The interactive course "Doing and Experiencing Dialogical Reflection on Research and Innovation" focuses on different approaches to facilitate dialogue on R&I developments, as well as their societal implications and impacts. Students will act as participants and as facilitators.

The "Enhance your Thesis" programme focuses on the application of RRI as part as a master's thesis, inspiring students to go beyond the realm of their discipline of science, reflecting about the implications of their own work in society.

Programme	Doing and Experiencing Dialogical Reflection on Research and Innovation	Enhance your Thesis
Cycle	EHEA: Second cycle EQF level: 7 Degree level: Master	EHEA: Second cycle EQF level: 7 Degree level: Master
Year of study	Second year of master's studies	Second year of master's studies
Number of ECTS credits	3.0 ECTS credits (workload of 75 to 90 hours)	2.0 ECTS credits (workload of 50 to 60 hours)
Learning outcomes (LO)	1. Explain methods to facilitate dialogue and discussions on (R&I) with different societal actors. 2. Adapt a dialogue approach to facilitate dialogue on a specific R&I process or development. 3. Carry out a dialogue activity to discuss a specific R&I process or development and analyse the participants' different perspectives on and assessment of the R&I issue under debate. 4. Reflect on the quality of the dialogue and interaction facilitated through a dialogue activity.	1. Apply concepts of RRI to discuss research and innovation (R&I) processes and their outputs. 2. Assess possible societal implications and impacts of concrete research activities. 3. Acknowledge and react constructively to suggestions from their peers regarding their own research work. 4. Propose adaptations to better align a research project with societal needs, values, and expectations

PhD programmes

PhD students are expected to contribute to the knowledge in their respective field, facing the challenge to extend their boundaries and produce new insights of specific topics. In this context, HEIRRI proposes two programmes for PhD students in their first years to inspire them to reflect on and analyse different aspects of research processes and steer them towards being more responsible and open to societal needs, values, and demands.

The “Responsible PhD: RRI and PhD Research Projects” programme introduces the students to RRI, facilitating reflection and discussion concepts and approaches of RRI. Case examples help participants to reflect on their own research project from an RRI perspective so that, by the end of the course, students can propose how RRI could be applied to their academic context.

“Supporting RRI: Developing RRI Guidelines for PhD Candidates” is a PhD workshop designed to encourage students to reflect, in a critical way, about how RRI could be practically implemented in their own domain and context. It draws on different notions and concepts of RRI, which then should be transferred and adapted in developing basic guidelines for PhD students.

Programme	Responsible PhD: RRI and PhD Research Projects	Supporting RRI: Developing RRI Guidelines for PhD Candidates
Cycle	EHEA: Third cycle EQF level: 8 Degree level: PhD	EHEA: Third cycle EQF level: 8 Degree level: PhD
Year of study	Beginning of PhD research project	Does not have a determined year.
Number of ECTS credits	1.0 ECTS credit (workload of 25 and 30 hours)	1.0 ECTS credit (workload of 25 to 30 hours)
Learning outcomes (LO)	1. Analyse and discuss the main characteristics of different concepts of RRI and their implications for research practices. 2. Apply different concepts of RRI to identify possible ways to make concrete R&I processes more responsible. 3. Identify possibilities to make their own research projects both on the procedural and outcome level more responsible.	1. Identify possibilities to promote RRI given their own position in research and innovation processes and institutional structures. 2. Develop and formulate RRI guidelines for PhD candidates within their field. 3. Deliberate on how to implement RRI into their own research projects.

Train-the-trainer programmes

It is common for teachers and non-academic staff in HEIs to not be totally familiar with concepts of RRI and with effective ways to apply them in their own R&I context. Taking this into account, HEIRRI has developed two short and flexible courses to strengthen the understanding of RRI.

“The workshop was very interesting and educational. I am looking forward to applying some of the methods in my own work.”
Nikolina Vitturi Bagatin, M.Sc., Research Office, University of Split School of Medicine

“Teaching Responsible Research and Innovation in Higher Education” is an online course for HEI professionals that are interested in reflecting on and teaching concepts of RRI in HEI. It provides useful information and guidance on how to organise and implement this objective, based on a high degree of personal time management to study and exchange opinions through an online forum.

“Facilitating Reflection on Responsible Research and Innovation” has been designed for HE academic and non-academic staff to facilitate opinion on issues of RRI, as well as to make participant aware of how to facilitate reflection on RRI on behalf of their students in their own teaching activities. This one-day in-service workshop allows HE actors to express their interests in RRI, as well as to connect with co-workers who might share similar concerns.

Programme	Teaching Responsible Research and Innovation in Higher Education	Facilitating Reflection on Responsible Research and Innovation
Cycle	In-service training; not part of a study programme.	In-service training; not part of a study programme.
Year of study	-	-
Number of ECTS credits	No ECTS credits awarded. Workload of approximately 15 to 20 hours.	No ECTS credits awarded. Workload of approximately 15 to 20 hours.
Learning outcomes (LO)	1. Formulate their understanding of responsible research and responsible innovation. 2. Discuss approaches to promote RRI with regards to their applicability in research and innovation (R&I) processes. 3. Adapt strategies and approaches for teaching and learning on RRI and propose concrete teaching activities for promoting RRI in higher education.	1. Apply concepts of Responsible Research and Innovation (RRI) to discuss the societal implications of research and innovation (R&I) developments. 2. Outline how to promote reflection on RRI and related issues in higher education settings.

Summer School programme

"Considering Responsible Research and Innovation by Design" is a five-day summer school that brings together different participants, such as master and PhD students, R&I actors and other stakeholders. The summer school aims to teach how to make research projects, its processes and outcomes more responsible towards society and its needs. The programme creates an environment for different groups to engage in deliberating on RRI addressed to specific research activities. Participants can define the topic of their research proposal within the setting of the course.

Massive Open Online Course (MOOC)

"Concepts and Practice of Responsible Research and Innovation" is a Massive Open Online Course (MOOC) for a broader and generic audience. The objective of this programme is to give participants (who won't necessarily have a background in RRI) an overview of the ideas and concepts of RRI, show them practical examples, cases of implementation and RRI activities. Ultimately, it wants to inspire and guide participants – as far as possible– to include what they have learned into their own work.

Programme	Considering Responsible Research and Innovation by Design	Concepts and Practice of Responsible Research and Innovation
Cycle	Summer School EHEA: Second and third cycle EQF level: 7 and 8 Degree level: Master, PhD	Massive Open Online Course
Year of study	-	Open online course; not part of a study programme.
Number of ECTS credits	2.0 ECTS credits (workload of 50 to 60 hours)	2.0 ECTS (workload of 50 to 60 hours)
Learning outcomes (LO)	1. Apply key dimensions of (RRI) considering concrete research activities. 2. Design a multidisciplinary research project incorporating ideas of RRI. 3. Share and discuss ideas on the implementation of RRI with others in a distended context. 4. Present project proposals in an easily comprehensible and creative manner.	1. Describe the history and idea of (RRI). 2. Discuss and contrast the different approaches and concepts of RRI. 3. Adapt and translate their knowledge of RRI into their own work or studies.

Secondary school teachers programme

"Science open to society, Schools open to science" is a workshop addressed to secondary school teachers. Combining different methodologies and examples, this programme helps secondary school teachers understand the value of RRI and how could it be integrated into secondary school education. This course addresses the importance of reflecting from a young age about the relationship between science and society.

Programme	Science open to society, Schools open to science
Cycle	Workshop
Year of study	-
Number of ECTS credits	No ECTS credits awarded. Workload of approximately 15 to 20 hours.
Learning outcomes (LO)	1.Reflect on how to integrate RRI aspects into secondary education. 2. Design an activity to teach RRI in the classroom 3. Analyse different methodologies and resources to promote reflection on RRI. 4. Generate and moderate a debate on RRI in the classroom.

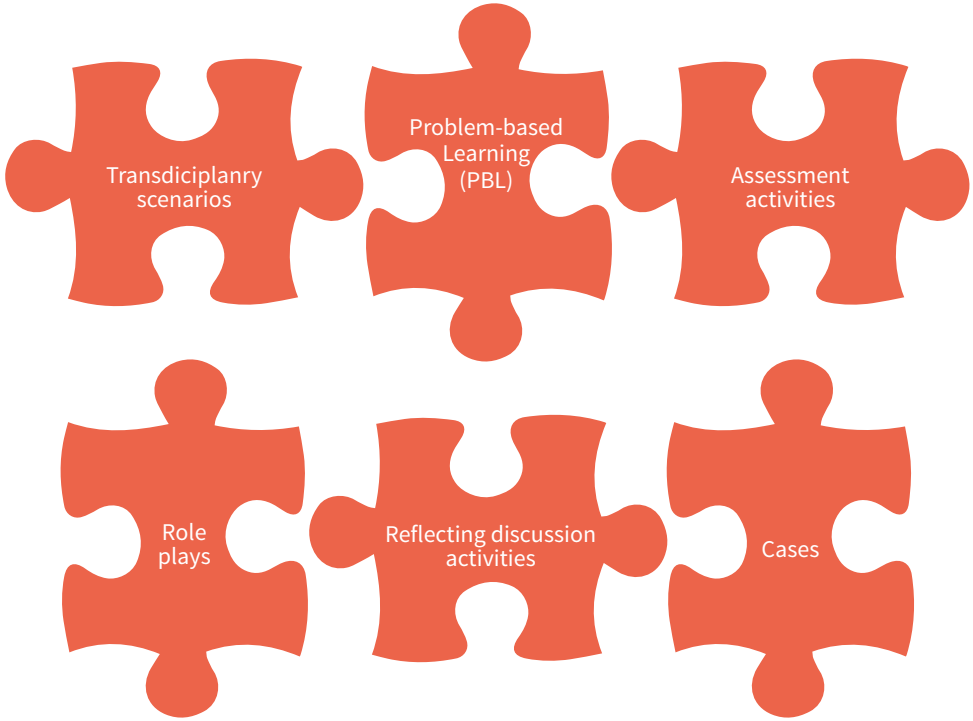
Participants from the HEIRRI Summer school pilot at the University of Split. October 2017

Public engagement activity in CosmoCaixa museum in Barcelona, involving key stakeholders. September 2017

HEIRRI TRAINING MATERIALS

To implement the different programmes, HEIRRI has elaborated the necessary teaching materials. These are based on innovative learning methodologies to enhance the students' participation and reflection. All materials are available on Open Access.

With the HEIRRI materials, students are encouraged to think and reflect on RRI, to form an opinion, and to apply their acquired knowledge and skills to deal with RRI issues in research and innovation processes. Six different types of materials have been designed, allowing teachers to adapt the programmes to their specific needs and resources. They have been developed in different formats, such as texts, interactive websites, explanatory and movie-oriented videos, games, etc. Materials illustrate the interrelatedness of science and society and the need to reflect and deal with this relationship, provide with examples of RRI processes and their impacts in specific fields, and give a perspective on the possible negative effects of not incorporating a responsible approach.



HEIRRI teaching materials

Transdisciplinary scenarios

The HEIRRI project has elaborated two videos to discuss about a couple of transdisciplinary topics of R&I: "Ageing" and "Food". The two videos present a controversial scenario where different people or groups are involved or affected by a new technology or science outcome. Students will work to identify interests, roles and responsibilities related to the scenario described. Teachers are provided with guidelines, learning outcomes expected, specific and general reflection questions and further material to enhance the reflection.

Problem-based learning (PBL) activities

HEIRRI materials include five Problem-based learning (PBL) activities for students to work in real or realistic made-up cases that illustrate a challenging research process. This methodology empowers the students to become active problem solvers looking for solutions in complex situations of concerning topics such as bioethics, politics and technology, among others.

With a premise related to the interests of students, teachers should encourage group discussion and critical thinking, orienting the students in answering questions like: What is "responsible" in the given context?, Which societal actors could be affected, and how, by the described process(es)?, How could the described process(es) be made more responsible?, among others. The teachers should evaluate students both on knowledge and the learning process through the activity.

PBL activities

The Island of Dr. Schultz
How far will humans go to benefit their own species?
Biomedical Research / Bioethics

House of Climate Change
Two sides to one story: One for all or all for one?
Environmental Sciences / Technology / Politics

Male Contraception
Gender bias: What's on the market and why?
Biomedical Research / Gender Studies

A Voyage into the Past
Science revolutionary technology: what does the future hold?
Biomedical Research / Technology/Bioethics

Cyberville
How much do we know and how much do they know?
Technology/Politics / Sociology

Role-play activities

Role-play activities have been designed to structure a debate among students. They include different points of view around a controversial issue dealing with certain benefits and risks. This activity allows all students to participate by taking a specific role in the debate. With a neutral perspective, the teacher participates as a moderator. Four role-play activities have been prepared to discuss about topics like public health, environmental sciences or politics. They include detailed contextual information upon which students can build extra arguments. Several characters and their agendas are fully described, each of them representing different actors of the specific context in order to recreate the different interests involved in real-life research dilemmas.

Role-play activities

Gof Experiments
When science can mean a risk for society.
Biomedical Research / Public Health

Sustainable Fashion
Different project proposals from different fields related to sustainability.
Environmental Sciences / Technology- Politics

Biomass
Risks and benefits of different energy sources.
Environmental Sciences / Technology

Nanotechnology in Agriculture
Possible impacts and politics of an un-tried new technology.
Technology / Environmental Sciences / Politics

Cases and Issues cards

HEIRRI presents twelve cases that promote a reflection on responsibility in R&I with real examples of issues related to: Gender, Sustainability, Ethics and Inclusive Science. Inclusive Science refers here to concepts

such as Open Science and Public Engagement, since they are inclusive in terms of disciplinariety and also in considering all groups of society. The cases can also be used in card-based exercises. Learning through the cases can help participants understand the integration of RRI in different fields and contexts.

Cases and Issues cards

Housing and Neighbourhood Designs
Gender Equality / Architecture, Urbanism

HIV Microbicides
Gender Equality / Biomedical Research / Public Health

Malvecblok
Gender Equality / Biomedical Research / Public Health

IMRR
Sustainability / Inclusive Science / Ecology

Klima Alltag
Sustainability / Inclusive Science / Environmental Sciences

PIER
Sustainability / Inclusive Science / Marine Biology Research

Mosquito Alert
Sustainability / Inclusive Science / Environmental Sciences, P.H

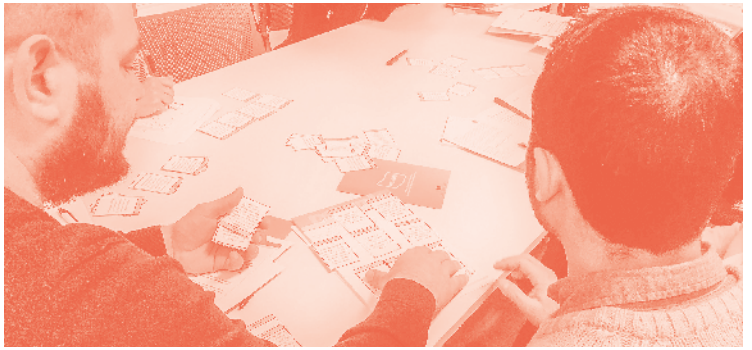
Marlisco
Sustainability / Inclusive Science / Waste Management

TREE project: Adolescents in HIV Research
Ethic / Biomedical Research

PPI Parkinson's
Ethics / Inclusive Science / Biomedical Research

AMBIACT
Inclusive Science / Technology

DNA LABS
Inclusive Science / Science Education / Biomedical Research



Students using conversational cards during a HEIRRI pilot in Croatia. February 2018

Reflection and discussion activities

• Building an RRI wall: In this activity, students are asked to "build" an RRI definition, made up of their initial beliefs and ideas, together with some academic framework and group discussions. Students share their RRI walls and discuss the key concepts that they have identified.

• Card Exchange: The card exchange promotes a debate where students share their beliefs on what it means to be "responsible" in R&I. Students receive a pack of cards with different statements about RRI, from which they can choose the ones they like and start exchanging them formulating thoughts. With this activity, students learn to define priorities for RRI.

• Five Corners: This activity requires a large open space with four corners: each corner corresponds to an education methodology that can be used to teach RRI (like PBL or Play-role). Participants rotate through all corners identifying pros and cons of each method. At the centre of the space there is a table where participants express their own ideas on how RRI can be promoted and via which strategies. Final conclusions are built from the comments made on the methodologies and the students ideas. With this activity, participants learn how to promote reflection on RRI via different methodologies in higher education settings.

REACHING OUT WITH EDUCATION: THE HEIRRI PILOTS

The HEIRRI resources have been piloted within the HEIRRI consortium to test their implementation in different contexts in the countries of Austria, Denmark, Norway, Croatia and Spain. Moreover, in order to have a more diverse range of people using and experiencing the resources, HEIRRI has also organised 20 pilot experiences with non-HEIRRI universities from around the world, featuring Algeria, India, Bosnia and Herzegovina, Lithuania, Bulgaria, Germany and Spain. From the feedback received from the institutions that implemented the HEIRRI resources, the consortium has been able to evaluate the applicability of the programmes and materials in different contexts.

HEIRRI pilot of a “train the trainer” programme in Calcutta, India. January 2018

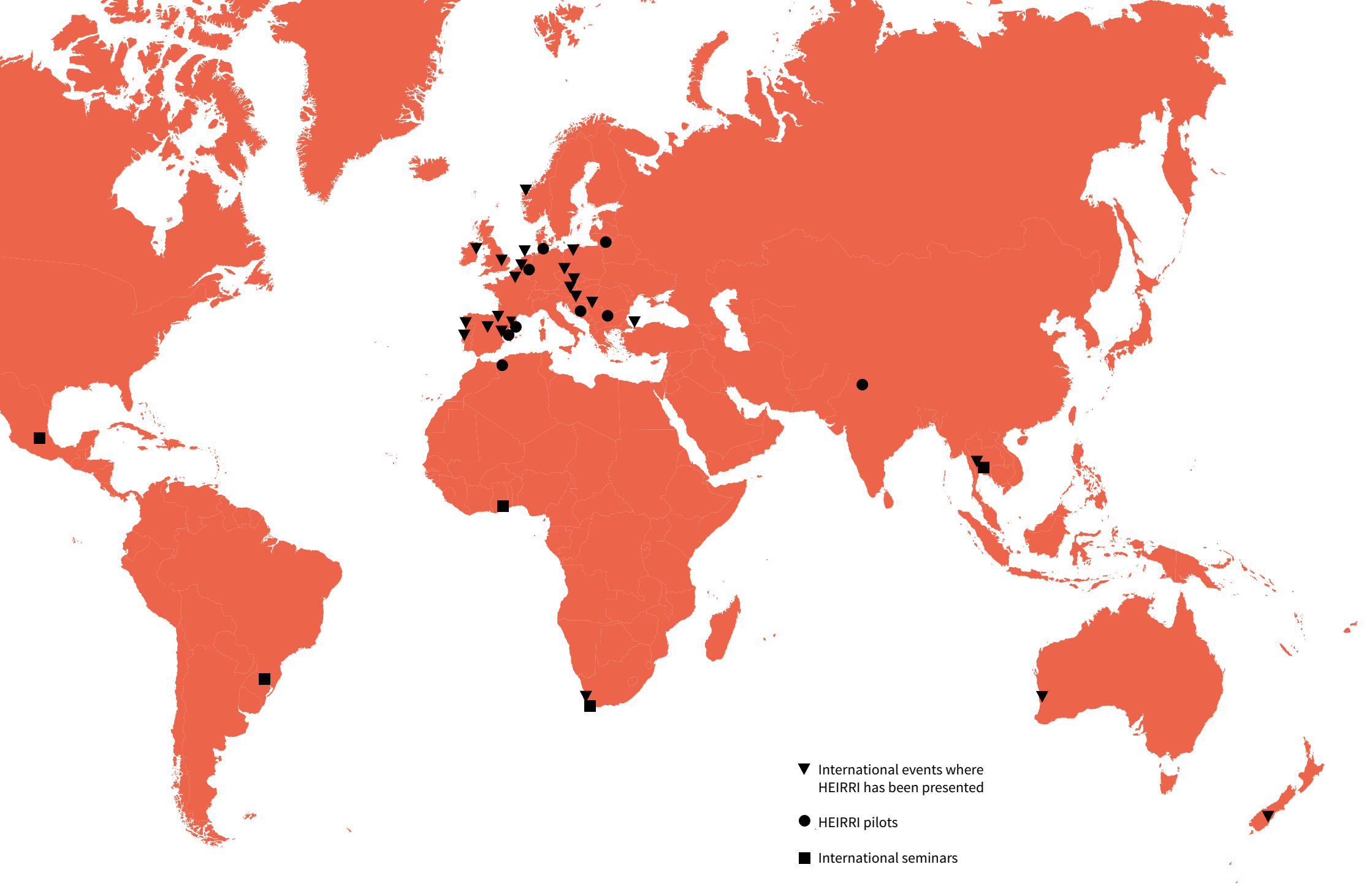
HEIRRI ALL AROUND THE WORLD

“The Ghana HEIRRI workshop triggered a wave of reflections on how to steer research and innovation activities in African higher education for positive societal impact especially in addressing the grand challenges of poverty, youth unemployment, food security, health security and ethno-religious violence”

Peter A. Okebukola
President, GUNi-Africa

With its internationalization plan, the project results have been disseminated at a global scale via the consortium partners and institutions interested in RRI. From its conception, HEIRRI was designed to be accessible to HEIs from all over the world, by organizing seminars and conferences in different regions of the world, by sharing information among international networks and by creating international collaborations through the HEIRRI scholarships.

International seminars have taken place in Mexico DF, Mexico (Universidad Nacional Autónoma de México); Portoalegre, Brazil (Universidade Federal do Rio Grande do Sul); Bangkok, Thailand (International Association of Universities 15th General Conference); Accra, Ghana (Association of African Universities) and Cape Town, South Africa (Going Global 2016 Conference).


International events where HEIRRI has been presented
HEIRRI pilots
International seminars

HEIRRI 1ST CONFERENCE

1st HEIRRI Conference, celebrated in Barcelona, March 2016

HEIRRI first conference reunited HE professionals from more than 20 different countries under the topic “Teaching Responsible Research and Innovation at University”, becoming a real forum of opinions and valuable insights from relevant stakeholders on how RRI can be integrated into higher education. The delegates shared their experiences on teaching RRI, debated about the HEIRRI objectives and established strategic collaborations.

HEIRRI COMMUNITY BUILDING

HEIRRI community building numbers (Twitter, Facebook, LinkedIn):


1329


348


189

Communication impact on media (newspapers, blogs, websites):


275

The HEIRRI project wants to spread the importance of RRI among different actors from our society, specifically higher education institutions, research centres, informal education institutions and policy makers, among others. With a strategic communication plan, HEIRRI has spread its activities and results widely and through online and offline platforms. In addition, the project has raised awareness about the importance of RRI in education and has united an online community subscribed to the reflection on RRI. The HEIRRI communication platforms and channels are used to engage with a community of stakeholders with a common interest: creating a positive change on how science and research is done and on its impacts in our society.

You can find all HEIRRI programmes and materials in the HEIRRI website (www.heirri.eu), the RRI Tools platform (www.rri-tools.eu) and the GUNI website (www.guninetwork.org/).

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