Interreg

EUROPEAN UNION

Danube Transnational Programme

D-STIR

Project co-funded by European Union funds (ERDF, IPA).

FINAL BROCHURE

D-STIR

about the responsible innovation on an easily understandable way

Have you ever wondered how many decisions you make in an average morning before you leave home? And how many actions you do which became a routine?

Or have you ever thought of how many actions you automatically do without considering whether there is a better, more effective option? And what kind of unintended impacts these actions of yours may have?

If we take this example from our everyday life and place it to the everyday life of research infrastructure, we can find some similar, but implicitly more complicated processes and questions. To systemize and analyse them we can use the Socio-Technical Integration Research (STIR) method, which was developed in America and applied successfully in the research institutes of developed countries. This method was adapted by researchers to the innovation environment of Danube Regions of project partners, thus creating the D-STIR method.

In order to understand the importance of the method, we need to get familiar with the concept of „RRI – responsible research and innovation“

R&D&I can have positive and negative effects:

growing living standards
economic benefits
conveniences

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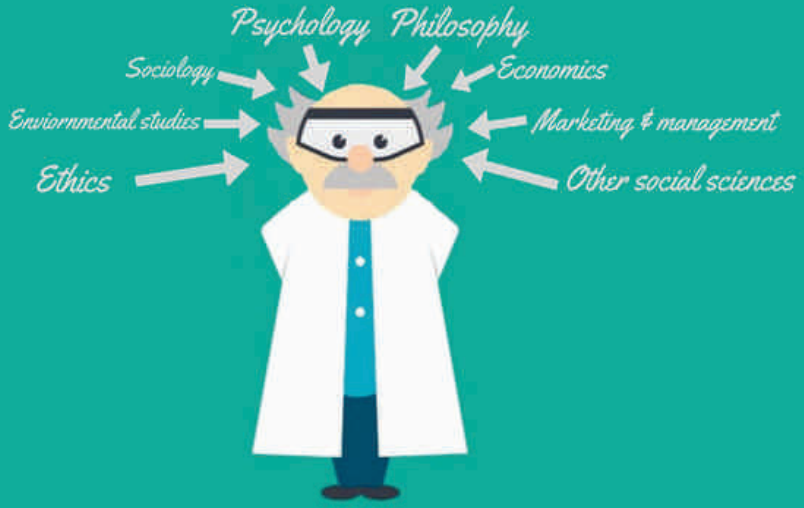
social and environmental problems
economic risks
ethical problems

Negatives should be addressed and ideally avoided.



RRI - The definition of Schomberg:

"a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)."

6 KEY ELEMENTS:

1) public engagement in innovation: wider acceptance of outputs

2) gender equality: it improves the opportunities of women and the under-representation of women researches

3) scientific education: broaden the knowledge of future researches and other societal actors

4) ethics: shared values of the European Union

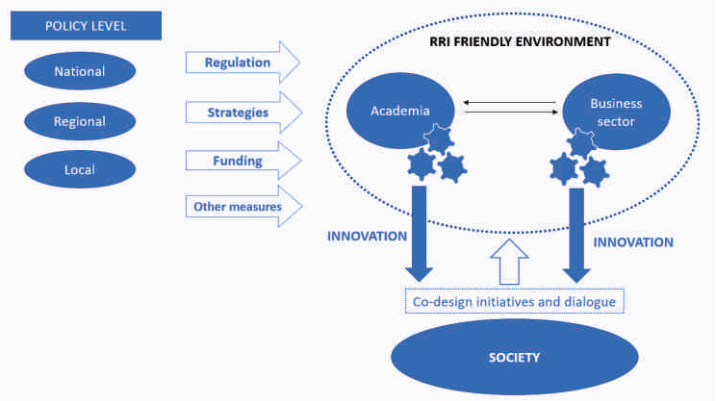
5) open access: availability of research results to everyone

6) governance: greatly influences the outcomes of innovation processes, it can make a difference in harmonization with RRI

"A multidisciplinary approach: unlock the power to innovate"

One of the main goals of D-STIR project was to apply the socio-technological integration method in several organisations. What is the idea behind this process? It is actually coaching about the concept of "Responsible Research and Innovation (RRI)" to either natural scientists or technically focused specialists. The whole coaching cycle takes about 12 weeks in the form of face-to-face sessions, thus making it intensive. With proper tools, it can improve not only effectiveness of individuals, but also broaden the perspective on whole research/innovation process in the organisation and, ideally, determine individuals to think more about the effects of their research work and become more responsible about it.

During our pilot actions performed in 8 countries and within the scope of 10 organisations of various types, from purely academic and private R&D, to manufacturing companies, D-STIR tested and improved understanding of test subjects in various fields such as economy, management, communication, psychology and ethics. Effects of the D-STIR process were proven by data obtained from the test subjects. One of the unintentional effects of the coaching process was to "clear mind" or "redesign the work" of tested subjects thus bringing new perspectives on already occurring processes and routine work, which can bring significant organisational innovation.



A particular focus of D-STIR coaching was on responsibility in innovation process at both individual and organisational level. People often neglect the so called 'externalities' (unintentional effects of the work), thus their understanding, how they influence their environment, is very limited. It can be said that people often cannot see the forest for the trees. Improvement of understanding of responsibility was one of our main goals during the pilot tests of the D-STIR methodology. As a follow-up activity, the D-STIR project supported pilot organisations in improving their internal processes such as: time management, understanding of EU grants, innovation strategy, science communication etc. Our main goal was to bring improvement to the organisations and to create new tools to increase their innovation potential.

RRI STRATEGY FOR THE DANUBE REGION

Our work within D-STIR has taught us lots about RRI in the Danube Region. RRI Strategy for the Danube Region gathers that knowledge into a single practical, strategic document. Here we give you a little taste of our strategy.

Embedding Responsible Research and Innovation (RRI) in R&D&I practices requires a multisector perspective and a strong commitment at policy, academic and business level. RRI actions must take into account the sector, nature and priorities of the organisations involved, their level of experience in innovation/RRI, management procedures and availability and skills of human resources. On top of that, countries in our Danube region have some specific characteristics, linked to their history, economic structure and business culture. Disregarding these in the RRI design phase may negatively impact on the implementation and success of the measures adopted.

The recommendations that we share with you today consider these points and include both overall recommendations for policy makers and specific recommendations for academic and business environments.

POLICY RECOMMENDATIONS

1. Include RRI as a horizontal principle in R&D&I strategic documents;
2. Optimise regulation, to guarantee that RRI principles are embedded in relevant sectors, at all levels;
3. Use RRI as a criterion to award public funding for research and innovation and/or as an indicator to monitor performance of the projects funded;
4. Define new funding initiatives to finance RRI support structures and/or RRI piloting in private companies or academic institutions;
5. Promote transparency in the allocation of funds for R&D&I activities and in granting access to research objectives, results and outcomes;
6. Engage industry to boost a change in business culture, by demonstrating the commercial value of RRI and its benefits in terms of public image and competitiveness;
7. Create incentive schemes and rewards to offer acknowledge-ments and prizes to RRI champions;
8. Create / support the development of innovation intermediaries with specific expertise to support businesses that want to engage in RRI;
9. Promote cross-sector collaboration in R& I, facilitating exchange between industry and academia;
10. Promote education, training and capacity building at all levels on RRI topics;
11. Raise awareness about RRI and its building principles in the industrial and academic sector, making use of the political influence on innovation activities;
12. Encourage the development of official channels to build relationships among stakeholders that are based on slender structures and flexible approaches, with very low bureaucracy;
13. Encourage co-design initiatives to involve the civil society in the innovation process

ACTIONS AND MEASURES FOR THE ACADEMIC SECTOR

1. Adopt RRI keys as horizontal principles not only for R&I, but for all the activities of the institution;
2. Design education programmes that focus on and/or comply with RRI principles;
3. Use RRI as a criterion to finance R&I projects and/or as an indicator for performance monitoring;
4. Include RRI skills among the qualifications requested for research personnel to be hired;
5. Facilitate cross collaboration among different research areas / departments / individuals, to build mutual trust and strengthen exchange of experiences;
6. Promote diverse and inclusive working groups;
7. Adopt gender / diversity management plans;
8. Create ethical advisory boards;
9. Define socio-environmental monitoring systems to assess the different phases of research;
10. Raise awareness on RRI topics and principles among researchers, providing evidence on the benefits of an RRI approach for the scientific excellence of their activities;
11. Educate students on RRI, to build a new RRI culture and trigger a durable change in the approach of next-generation researchers to the R&I activities;
12. Define incentive schemes / prizes to award R&I projects adopting an RRI approach;
13. Participate in transnational / international R&I projects on RRI, or related topics, to improve knowledge and approaches;
14. Promote / participate in joint initiatives with business, third sector and citizens to co-design innovation in and for the society.

ACTIONS AND MEASURES FOR THE BUSINESS SECTOR

1. Adopt RRI keys as horizontal principles not only for R&D&I purposes, but for all company's activities (e.g. selection of staff, facilities / waste management, etc.);
2. Take advantage of funding granted and training opportunities and support initiatives promoted by public institutions and/or innovation intermediaries in the field of RRI;
3. Use RRI as a unique selling point and core component of company's brand identity, to gain visibility, reputation and competitiveness;
4. Promote diverse and inclusive work environments;
5. Include RRI skills among the qualifications requested to professionals applying for job positions;
6. Adopt gender / diversity management plans and release periodic reports on company's performances;
7. Facilitate cross collaboration among different departments, professionals and individuals, to build mutual trust and encourage peer learning;
8. Create ethical advisory boards;
9. Define socio-environmental monitoring systems to be used to assess the different phases of product lifetime and the performances of the company as a whole;
10. Involve different company levels and professionals (from top management to employees) in co-designing innovation;
11. Participate in transnational / international R&I projects on RRI, or related topics, to improve knowledge and approaches;
12. Promote end-user engagement programmes and participate in joint initiatives with academia, third sector and citizens to co-design innovation in and for the society;
13. Identify key stakeholders and establish permanent working groups to guarantee continuous dialogue and exchange.

STAKEHOLDERS' STATEMENTS

Since I was confronted with the D-STIR project I make decisions for myself and my company under consideration of sustainability and social responsibility and thus contribute my small input to shaping the futur.
Jürgen Jähnert, CEO – bwcon GmbH, Germany

During the D-STIR project the following question was posed to me many times: "How can this be done in another way?" This simple question can open up more effective workflows or just a different point of view. It still comes to my mind when I'm facing a problem.
Zsuzsanna Pápa PhD, researcher, Hungary

The activities performed under D-STIR project gave another perspective and approach to our work, especially about what works well and what should be improved in our daily work. It helped us to become more organized and aware and focused on the important aspects of our organization. In the same time, STIR interactions helped us to reflect more on the responsibility of our company regarding our future innovative decisions.
Coman Stefan - manager BALCANIC PROD, Romania

Interesting break from the usual activity. It gave me the opportunity with questions to focus more on some social and ethical aspects of my work, useful for the construction of the team.
Ovidiu Tesileanu, Head of Research Activity ELI-NP, Romania

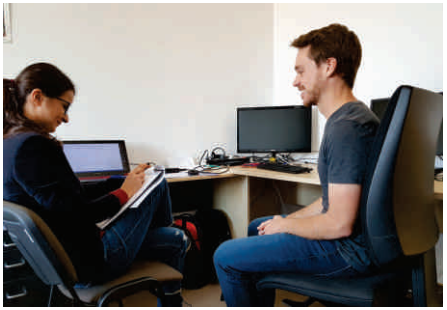
Future responsible research and innovations are directly related to the further development of artificial intelligence and neural networks in research because the time and precision of research are drastically reduced, therefore, directly reducing the time for placement of the product on the market and reducing the overall risk for the patient during the medical research.
Asim Bučuk, independent researcher, BIH

STIR process helped me to improve on my long term personal and research strategy.
Dušan Jandačka, Phd. – CLS Consulting, Slovakia

We got an external view of our company from the independent person. I felt the support and true interest in our work from EHs side. I got a lot of information and practical pieces of advice especially from the economic point of view (market research, involvement of trainees etc.).
Milena Jindřichová, GENREX, Czech Republic

The ability to explain your own research in a short, easy way for not scientific people is probably the the hardest thing for a scientist. D-STIR made me realize that and now each time I have to talk about my scientific work I try to be as clear and easy as possible. D-STIR also enlightened out of the box viewpoints of scientific research, such as psychological and economical aspects.
Szabolcs Tóth, researcher, Hungary






PILOT ACTIONS in ACADEMIC & BUSINESS ENVIRONEMNT

D-STIR partners tested D-STIR method with 36 SMEs and 4 labs




PARTNERSHIP

Lead partner:
SOUTH-EAST REGIONAL DEVELOPMENT AGENCY, Romania

ERDF co-funded partners:

Cassovia Life Sciences, Slovakia

First Hungarian Responsible Innovation Association, Hungary

ELI-HU Research and Development Non-profit Ltd, Hungary

Development centre of the Heart of Slovenia, Slovenia

Institute of Physics of the Czech Academy of Sciences, Czech Republic

Horia Hulubei National Institute for Research and Development in Physics and Nuclear Engineering, Romania

bwcon GmbH, Germany

County Government of Csongrád, Hungary

Central Bohemian Innovation Centre, Czech Republic

Development Agency Heart of Istria, Croatia

IPA co-funded partners:

Sarajevo Economic Region Development Agency, Bosnia and Herzegovina

Strategic associated partners:

Ilfov County Council, Romania

Kosice Self Governing Region, Slovakia

Sarajevo Canton Planning Institute, Bosnia and Herzegovina

Imprint:

Authors: Co-operation of D-STIR partners
Design & Concept: Development Centre of the Heart of Slovenia
Photos: all photos are provided by D-STIR project partners

Printed in Slovenia, June 2019

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www.interreg-danube.eu/d-stir