D-STIR Application Report describing business applications

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Identification			
WP	**Activity**	**Deliverable**	**Document**
WP5 – RRI Pilots	A5.1 – D-STIR Application	D-STIR Application Report describing business application	Final Report

Contents

1. Introduction

Science and technology policies around the world are placing new pressures on companies to address broader societal dimensions such as change in the labour market, global problems, etc.

For this reason, responsibility should be one of main concerns in innovation ventures of companies. Technologies and innovation developed in life sciences such as GMO and modifying of human genome, creation of Artificial Intelligence., robotisation can have disruptive effect not only on economy, but also on society itself.

Companies are put under pressure to keep high ethical, moral and environmental standard mainly by new strongest capital group, so called millennials. It is in interest of companies to implement processes of responsible research and innovation into their day to day operations.

One of the ways how to achieve that is to further educate technologist and natural scientists within the scope of the companies, in order to broaden their horizon and give them guidelines how to access their work.

Despite longstanding calls for collaborations between natural and human scientists to achieve desired synergy, neither the capacity of laboratories to respond to such pressures nor the role that interdisciplinary collaborations may play in enhancing responsiveness is well understood or empirically supported. It is crucial to overcome these limitations in order to design, implement and assess effective programs aimed at responsible innovation.

While technological innovation is a core element of efforts to increase public welfare, innovators are rarely trained to take the societal dimensions of innovation into account in a systematic manner. Responsible innovation has emerged within policy discourses worldwide to address this challenge. Implementing responsible innovation in daily practices, however, requires addressing both the multidisciplinary and the culturally situated nature of innovation processes. Effectiveness of Socio-Technical Integration Research (STIR) has been tested, but primarily only in developed countries, raising questions about how well it works in an innovation and cultural settings differing from Western cultures.

D-STIR project aims to test methodology in countries of Danube region, which are mostly post-socialistic and have different mentality and needs than traditional Western cultures.

To test newly adjusted methodology, D-STIR project decided to create 2 pilot actions – the first in academic environment and the second in business environment. These two environments had distinctive differences and challenges as it would be demonstrated in the Reports on Academia and Business Applications, showing good feedback for further development of the method.

D-STIR Work Package 5 (T3) focuses on the Transnational Pilot Actions, designed to test the RRI Strategy and, specifically, application and follow up of the D-STIR method. Following the logical framework of the D-STIR project, these pilot actions use the results of Work Package 3 (RRI Strategy – First draft) and Work Package 4 to undertake a 13 month pilot phase.

Activity 5.1 focuses on D-STIR application. This is a 12-week application of the D-STIR method in academic and business pilot sites. This deliverable summarises piloted organisations and work done with explicit results that will be used further in development of RRI strategy within the scope of D-STIR project (Activity 3.3). It begins with an overview of the structure of the pilot actions, before presenting the results for each territorial action carried out.

This deliverable summarises piloted organisations in business sector and work done with explicit results that will be used further in development of RRI strategy within the scope of D-STIR project.

2. Activities fulfilling D5.1

This chapter provides an overview of the activities carried out within WP5, Activity 5.1 – D-STIR Application.

The partner responsible for the coordination of the Activity was Cassovia Life Sciences (CLS), with support from the D-STIR Lead Partner and from expert partner EMFIE.

Activities follow the same structure for each Pilot: Selection, Implementation and Evaluation.

- **Selection:** following procedures defined in WP4 (adjusting STIR method, as detailed in WP4 deliverables) academic partners selected at least 1 lab in their country (total 3 for pilot) and business partners selected at least 5 innovative SMEs in their country (total 36 for pilot).
- **Implementation:** the D-STIR expert (Embedded Humanist) was integrated into the chosen academic or business organisation over 12-weeks. They applied D-STIR into the daily operation of the pilot organisations, under natural conditions. In each case, as foreseen by the STIR method, they conducted continuous interactions with staff.

All pilot actions followed the approved and tested method for STIR Application. This began with a pre-D-STIR interview and on knowledge, management/organisational tasks and innovation content. The aim of this interview is to gauge the starting point of each organisation in terms of innovation and research structures and procedures. Interviews are usually about hour long and they follow precise methodology developed in WP4 during adjusting the original STIR method for the needs of Danube region. As an output, the Embedded Humanist completes the pre-study questionnaire.

During the pilot period, the Embedded Humanist worked with the innovators in a participative evaluation of the various dimensions of RRI. The number of meetings / intensity of interaction was defined on agreement between both sides. The important methodological structure is that after each meeting, an evaluation is made using the STIR methodology.

At the end of the 12-week period, a post-D-STIR interview was carried out. This, and the notes from throughout the whole period, was used to complete the post-study questionnaire.

- **Evaluation:** throughout the implementation period, feedback was gathered by the Embedded Humanist, working in collaboration with other members of the D-STIR partner staff. In the last month, RRI Actions began to be defined in collaboration between D-STIR expert and staff. These actions form the basis for Activity 5.2, Testing RRI Actions and Activity 5.3, Preparation for Investment and Leverage of Funds.

3. Partners involved in business pilots

Project Activity 5.1. consists of 2 main pilots (business and academia) that are subsequently broken down into sub-pilots to be carried out by project partners:

Business environment

- South East Regional Development Agency – Romania
- Cassovia Life Sciences – Slovakia
- Development centre of the Heart of Slovenia – Slovenia
- Bwcon GmbH – Germany
- Central Bohemian Innovation Centre – Czechia
- Development Agency Heart of Istria – Croatia
- Sarajevo Economic Region Development Agency – Bosnia and Herzegovina

There is significant difference between economic and societal development of the countries, where pilot action was tested.

We expected different results mainly between Germany and rest of the countries, due to the fact that from previous experience, post-socialistic countries face different development barriers.

4. Form of pilots

The D-STIR method supports interactions between experts from different disciplines (humanities and social science with technological sectors or natural sciences), who collaboratively reflect on the societal context of research decisions in order to support reflexive learning and practical adjustments.

In the selection phase of D-STIR, the D-STIR investigator (hereafter, called "Embedded Humanist - EH") identifies one or more research settings, typically laboratories, to become embedded in and work as a participant-observer.

In an invitation letter, the managers are asked for their own or their delegates' participation in the research or innovation. In this phase, the manager decides whether or not to allow an Embedded Humanist to join his or her company for 12 weeks.

Once the manager accepts, then the embedded humanist solicits researchers from the group who are willing to actively participate in the collaborative activities (as "high interaction" persons) and also employees who remain so-called "no interaction" persons (or "controls").

The embedded humanist will be in active contact with the high interaction employees. The controls allow the embedded humanist to analyze whether m enhancements of the decision practices are the result of D-STIR interactions and exercises or other factors such as company culture. While the specific study objectives may set requirements for who is recruited to participant, participation ultimately depends on the voluntary choice of the employees, who are not compensated for their participation and who may opt out at any time.

During the implementation, the D-STIR embedded humanist is embedded in the daily practices and operations of the natural science or technology R&I group. This may entail

taking equipment training classes, attending meetings, and joining specific innovation projects.

The interactions conducted with the participants of the pilot consist of the following elements: pre-study interview, post-study interview, participant observation, and regular application of a decision protocol.

During the pre- and post-study interviews, the embedded humanist asks the same questions of all participants in order to establish baselines and track traceable changes.

The open interview questions aim to investigate whether and how interdisciplinary interactions may help enhance the integration of social and ethical considerations into research decisions.

The pre-study interview is the beginning of the participant-observation at the same time, during which the embedded humanist visits the laboratory multiple times a week for 12 weeks and monitors the research activity of the participants recognizing their activity, attitude and decision points through the continuous interactions. The investigator communicates with the high interaction researchers while there is little to no contact with the controls.

In order to facilitate high-impact, real-time reflection on the evolving innovation activities, and to track the ongoing attitudes and behaviors of the employees participating in STIR, a “decision protocol” is regularly deployed throughout the duration of a STIR study. The protocol is based on a four-fold model of decisions that includes opportunity, considerations, alternatives and outcomes. With the assistance of the protocol, EHs and participants collaborate to identify and map out the distinct decision components that lead to any given decision, through a collaborative process of co-description, where decisions are observed, described, and reflected upon. Therefore, embedded humanists ideally become involved in the decisions and strategies even though they begin as merely observers. The protocol is usually deployed as a “grid” using a sheet of paper with four quadrants, one for each component. This facilitates the collaborators to write down and even hand-draw material together, in a transparent and interactive manner.

EH document these outcomes both quantitatively and qualitatively. Then they assemble qualitative accounts in both narrative and tabular form, depending upon which are salient and are relevant to the research questions and objectives. There are two choices for data presentation about the STIR protocol exercises and observations: narratives ("stories") and tables. As a result, the deliberate modulations made by the research participants are correlated to the deployment of the protocol and to the specific features of the innovation environment and process already operating at the level of daily decisions. Reflexive learning is theorized to enhance researcher capacities to make decisions that are consciously compatible with RRI objectives and principles.

Altogether STIR is not only a method for socio-techno integration, but it also enables capacity building for institutionalizing RRI: the output of STIR claims not only the changes in behavior, but also the learning and/or understanding that can lead to more changes in behavior later on.

In theory, there are at least three potential outcomes from these types of studies:

(i) skill development, learning, human capital;
(ii) changed behaviors, practices, design and research pathways;
(iii) increased trust and social capital between different (social science and natural science) disciplines.

One pilot is in fact a 12-week long interview (12 weeks can be spread to longer time according to availability of participants) between the embedded humanist (from the D-STIR project) and the so called stirred person from piloted organisation. Interviews are usually about hour long and they follow precise methodology developed in WP4 during adjusting STIR method for the needs of Danube region. As an output embedded humanist writes notes following given template and do pre-interview and post interview surveys together with evaluation of the process.

One pilot is in fact a 12-week long interview (12 weeks can be spread to longer time according to availability of the participants) between embedded humanist (from D-STIR project) and the so-called "STIR-ed" person from piloted organisation. Interviews are usually about 1-hour long and they follow precise methodology developed in WP4 during adjusting STIR method for the needs of Danube region. As an output, the embedded humanist writes

notes following given template and do pre-interview and post interview surveys together with evaluation of the process.

The D-STIR method has the following structure:

- At the beginning, the “STIR-ed”person fills in the pre-study questionnaire
- The 12 week-long “STIRing process” – consists of a number of meetings, depending on agreement between both sides
- After each session, a small evaluation is made using the D- STIR methodology
- After 12 weeks, the “STIR-ed”person fills in a post-study questionnaire
- Evaluation of whole process, reflection and preparing next steps.

4.1. Course of pilots

Each partner encountered series of difficulties right at the beginning of the pilot, during the “Selection” phase. The main problem was to persuade companies to join pilot, both as active participants (pilot was tested there) and passive participants (control).

At the beginning, all partners reached out to a higher number of SMEs, but the feedback was very weak. Then there was need to turn up to close network of former collaborators, sister-companies or in some cases, family companies.

This showed us that message of D-STIR and RRI is very hard for people to understand and we developed couple of motivational letters and other texts that was used to persuade companies to join pilots. It still proved hard to implement. The German partner, bwCon, decided to make pilot within their organisation and partner from Slovakia did pilot within a sister SME. Some partners were following snowball-method in order to find at least one SME willing to participate in the D-STIR process.

One of the main concerns of SMEs was that they would spent a lot of time, without any tangible results and D-STIR could not fund their participation in the pilot itself.

SMEs used in pilot varied very much in scope, business and potential in innovation as follows:

- South East Regional Development Agency

Name of SME	**S.C. BALCANIC PROD SRL**
Country	Romania
Field of Activity of SME	Industry
Main business	manufacturer of plastic films, bags producer

- Cassovia Life Sciences

Name of SME	**CLS Consulting s.r.o**
Country	Slovakia
Field of Activity of SME	CRO, Consulting of R&I, PCO
Main business	CLS consulting focuses on supporting research and innovation institutes in usage of their potential – as CRO – helping to find new partners. As PCO it organizes 2 major research focused every year-

- Development centre of the Heart of Slovenia

Name of SME	Mizarstvo KOS
Country	Slovenia
Field of Activity of SME	Wood processing
Main business	Mizarstvo KOS is a family owned business, employing around 10 employees. They are designing and producing several higher added value solutions for housing market. They have their own production. They are innovating mainly on product portfolio. The main decision maker also in the R&D activities is CEO Jože Kos.

- Bwcon GmbH

Name of SME	bwcon GmbH
Country	Germany
Field of Activity of SME	Innovation
Main business	Supporting and Consulting startups or established companies to create/accelerate innovative ideas in any form

- Central Bohemian Innovation Centre

Name of SME	Genrex s.r.o.
Country	Czech Republic
Field of Activity of SME	Genetic testing of animals
Main business	The company provided different animal testing mainly focused on hereditary diseases and parentity. The vast majority of testing is focused on diseases of dogs, testing of cats or cattle diseases is the minority. Some new tests are prepared also for parrots (sex). The company is located in the university campus and collaborates actively in some R&D projects (testing of wolf and crossbred dogs), but also provides its own research projects focused on new methods of testing etc.

- Development Agency Heart of Istria

Name of SME	Multi-sport ltd.
Country	Croatia
Field of Activity of SME	Furnishing of the sport halls and open sport terrains
Main business	The Company is dealing with the following services and products: counseling and planning of facilities, design, production of equipment, installation (montage) of equipment and maintenance of equipment. Provides expert advice on developing general development plans up to project evaluation.

- Sarajevo Economic Region Development Agency

Name of SME	Centre for business development – business accelerator, Asim Bucuk Independent researcher
Country	Bosnia and Herzegovina
Field of Activity of SME	R&D
Main business	Development of Personal portable electronic device for prolonged delivery of Visible and Near

	Infrared (NIR) Light, for the purpose of improving the endocrine, regenerative and immune system in humankind for commercial use, after development of prototype

D-STIR partners were able to find SMEs for pilot from number of fields such as:

- 3 manufacturing companies;
- 1 innovation consultancy;
- 2 R&D companies;
- 1 contract research company (CRO).

This was good for the pilot itself because during our meetings under project Activity 5.4, we could share more insights on the process itself, including specific challenges.

Mainly manufacturing companies have very different needs towards innovation. They are more interested in organisation innovation and marketing innovation compared to the R&D companies, which had innovation in their core business model.

During this process, regular contact was achieved between Embedded Humanists in order to share experience and navigate through various steps during the D-STIR process itself. From a methodological point of view, the implementation of the D-STIR process went smoothly, as each step was carefully planned by the Workpackage Coordinator and the thematic expert. Each partner had obligation to have at least 1 high interaction participant although some partners decided to have two, upon the request of pilot company.

In order to utilize low interaction SMEs further all of the business partners hosted event after the end of D-STIR process, where they promoted results of D-STIR process and gathered feedback from companies.

5. Results of pilot activities

The following tables will be focused on demonstration of both qualitative and quantitative results.

In the case of business sector, one SME was assigned as high interaction. Also, each involved partner had to provide four SMEs which were used as control group (they had to only fill pre- and post - study interview with a 12-week time-gap).

Methodologically, the piloting was conducted in a way that the Embedded Humanist was integrated for 12 weeks in the operation of each of company and examined the adaptability of the adapted D-STIR tool in daily operation, under natural conditions.

During the 12 week-period spent on each site, continuous interactions with high interaction subjects was conducted by embedded Humanists, while the other, no-interaction group, was created outside this area, from other SMEs.

The pre- and post-study interview questions (both quantitative and qualitative) mainly covered the innovation area, qualification and knowledge in the field of responsible innovation of the participating researchers, their opinion and view about the innovation process.

The evaluation of the social, ethical, environmental dimensions of Responsible Innovation and the definition of the related activities also played a role in the frame of the interview.

Subsequently, our questions covered a number of topics, among others questions in relation with the chosen realization method of the participant's research, financial, organizational, management tasks. During their interactions, Embedded Humanists endeavored to identify the features that characterize the innovation process and we also raised questions concerning the dimensions of RRI.

Methodological overview can be summarized:

	Week 1	Week 2-11	Week 12
Activity	Pre-study interview	Weekly observations	Post-study interview
Tool	Interview guide	Decision protocol with decision components (modulators)	Interview guide
Purpose	To understand the business and innovation activities of companies; and to establish baselines for participants' attitudes towards dimensions of RRI and their level of reflexive awareness at the beginning of the study	Identification and discussion of decision modulators; monitoring of de facto, reflexive and deliberative modulation, and understanding of notions concerning RRI keys and dimensions	To measure changes in participants' attitudes towards dimensions of RRI and/or in their level of reflexive awareness at the end of the study

5.1 Results of quantitative questionnaire

The entire STIR method was adjusted to the needs of the Danube Region thus making suitable for the needs of the project.

Evaluation of the whole pilot consists of 2 main parts:

- Quantitative – answering pre-defined questions before and after the 12 weeks long STIR process in order to detect changes in behaviour and thinking.
- Qualitative – describing SITR process from subjective perspective, summarising it, suggesting improvements and answering questions of utility of the STIR process

Business environment is very specific thus making STIR process focused more economic, management and marketing questions.

The position of the STIRed subject within the company was also very important: if it a manager, the whole process is focused more on organisation, than on one particular person. On the other hand, when the STIRed person was a regular employee, the focus of the process was more on the person, than on the organisation.

Table 1: Research participants profile

Partner	Country	EH	Duration of pilot	Test subject	High/low interaction[1]	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
SIC	Czechia	Lucie Nencková	January-April 2018	P1 - CZ	High	Manager	1x per week	1 – 1,5 hour
SIC	Czechia	Lucie Nencková	January-April 2018	P2 - CZ	High	Researcher	1x per week	1 – 1,5 hour
ADRSE	Romania	Monica Tudor	February-May 2018	P1 - RO	High	Head of Legal department	1x per week	1.15 hour

[1] High interaction is person who is being interviewed, low interaction is person who is given all of the documents to fulfil, but without STIR process – it serves as control group.

Bwcon	Germany	Sina Speer	January-May 2018	P1 - GE	High	Manager	0-2x per week	30 min.
CLS	Slovakia	Martin Haranta	February-June 2018	P1 - SK	High	Researcher	1x per week	90 min.
DCHS	Slovenia	Igor Košir	February-May 2018	P1 - SL	High	Marketing Executive	20 in total	45-120 min.
DAHI	Croatia	Marija Plesec Pongrac	January-April 2018	P1 - HR	High	Director	1x per week	30-45 minutes
SERDA	BiH	Belma Pašič	February-April 2018	P1 - BiC	High	IT Engineer	1x per week	30-40 minutes

The following tables summarise answers for questions defined in pre- and post- interview questionnaire, in order to achieve the quantitative results of the D-STIR process. The full wording of the questions is provided as an Annex to the Report.

Table 2 – Results of quantitate questions – pre-interview questionnaire[2] – high interaction

Subject	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q16
P1 - CZ	5	6	6	3	3	4	4	6	6	5	5	6	3
P2 – CZ	2	6	6	3	3	6	2	5	4	3	3	1	5
P1 – RO	4	6	6	3	6	6	6	6	6	6	6	6	6
P1 – GE	5	6	6	2	4	4	4	6	4	2	6	6	4
P1 – SK	5	4	5	6	4	6	4	6	4	5	5	5	4
P1 - SL	6	4	6	6	6	6	6	6	6	6	6	5	4
P1 - HR	6	5	5	3	1	3	2	5	1	3	3	3	6
P1 - BiH	6	4	6	6	6	1	4	6	5	6	5	5	6
Average	4.875	5.125	5.75	4	4.125	4.5	4	5.75	4.5	4.5	4.875	4.625	4.75

Table 3 – Results of quantitate questions – post-interview questionnaire – high interaction

Subject	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q16
P1 - CZ	3	3	4	6	6	6	4	6	6	6	6	3	4
P2 – CZ	2	6	5	5	3	5	6	6	6	6	6	5	5
P1 – RO	5	5	6	6	6	6	6	6	6	5	6	6	6
P1 – GE	5	6	6	2	4	4	4	6	6	2	6	6	4
P1 – SK	5	5	6	4	5	5	6	5	5	5	5	6	6
P1 - SL	6	6	4	6	6	6	6	6	6	5	6	6	6
P1 - HR	6	6	6	5	5	6	6	6	6	5	5	6	6
P1 - BiH	6	5	6	6	6	4	4	6	5	6	5	5	6
Average	4.75	5.25	5.375	5	5.125	5.25	5.25	5.875	5.75	5	5.625	5.375	5.375

To simplify the results for the needs of this deliverable, only average results of the low interaction questionnaires are presented in the Report.

All of the companies that were used as low interaction can be found in Annex 2 to this Report.

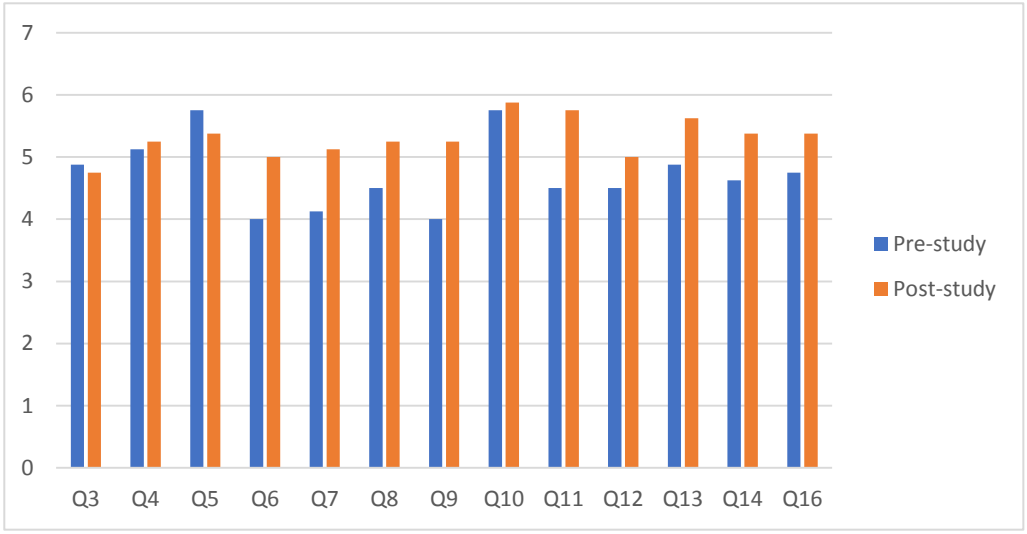
Table 4 – Results of quantitate questions – pre-interview questionnaire – low interaction

	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q16
Average	4.86	3.29	4.86	3.71	3.29	4.71	4.14	5.86	5	4.43	3	3.29	4.71

Table 5 – Results of quantitate questions – post-interview questionnaire – low interaction

	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q16
Average	5.14	4.57	4.14	3.71	3.42	4.86	4.57	5.57	5.14	4.29	3.29	3.86	5.14

Graph 1 Comparison of aggregated results pre and post study interview high interaction

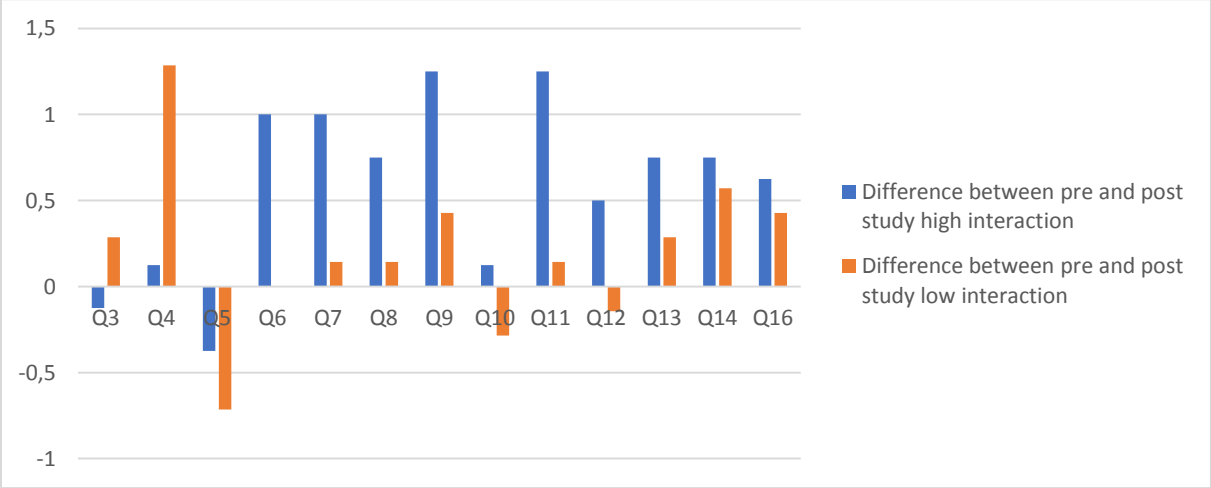


As Graph 1 shows, after the implementation of D-STIR method, in aggregate, most of the marks to questions increased with exception of Q3 and Q5, but the difference is insignificant.

The conclusion is that the D- STIR method was successful in mediocre improvement, although there is need of comparison to control groups, which is done in the Graph 2.

This Graph shows that there is a deviation in Q3 and Q4, but all the other questions have improved more than in control group, which directly shows that quantitative results of questionnaire mean improvement between pre- and post-study interview.

Graph 2. Comparison of difference between results of difference between post and pre study interview and low and high interaction subjects



All tested subjects can be divided into two general groups:

- Managers

  and
- Researchers.

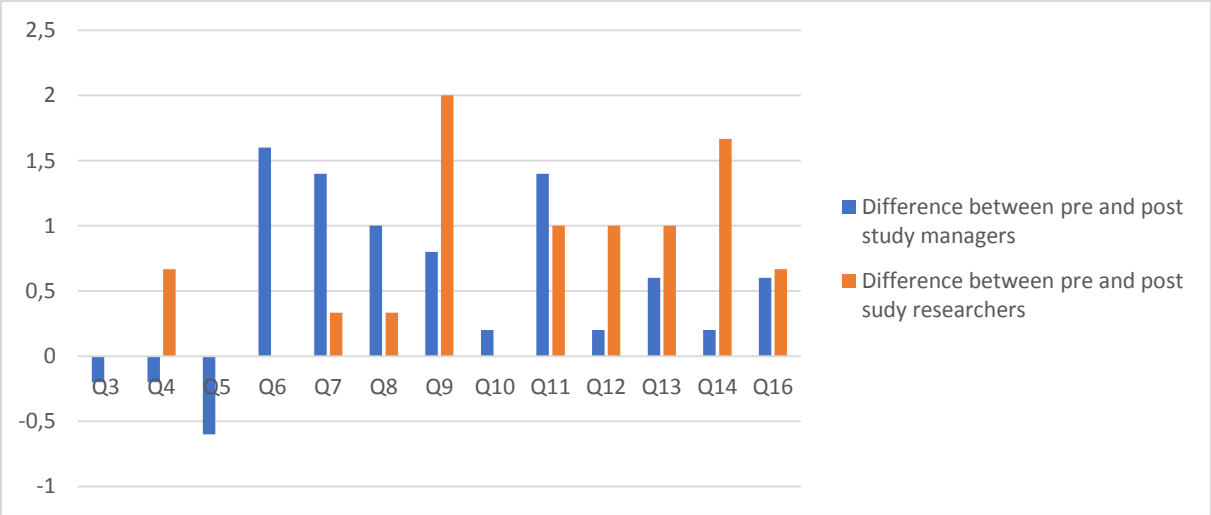
Our estimation was that people holding manager positions will achieve an overall smaller improvement than researchers since as managers they come often to contact with different disciplines of social studies.

As the Graph shows, in our case this is not entirely true, as in Q6, Q7, Q8 and Q11 the trend is opposite, which partially shows initial assumption wrong and, ultimately, taht D-STIR can be also useful not only for researchers, but also to people in companies who hold management positions and are responsible for process and organisational innovation.

Although it is important to stress out that understanding of the question varies in high interaction subjects, as they improve their understanding during the D-STIR process and can then adjust their opinions according to it in both directions.

In general, the expectations were that the D- STIR method would increase values in answers given, which was successfully proven in both Graphs 1 and 3.

Graph 3. Comparison of difference between results of difference between post and pre study interview and groups managers and researchers



5.2 Qualitative results of the academic pilot

D-STIR interactions were correlated to changes in reflexive learning, value deliberation, and practical adjustments on participants.

By the end of the 12th week of interaction, participants' awareness in all involved companies had been enhanced in what concerns their perception of RRI and socio-technical collaboration, and greater decision awareness was achieved, as well

For example, initially, during the post-study interview, subjects did not understand the full spectrum of decision making which was proven in post-study questionnaire, where their answers changed significantly (Table 6).

Table 6. Pre- and post-study changes in conceptions of decision making

Question 3: **How many decisions do you make a day during your work?**	
P1 - RO	
Pre-study	"We need to make decisions about those legal issues that concern us (the company). We have to interpret certain articles and put them in practice. We (the legal department) pass on solutions at management level and the management decides on the path to follow."
Post-study	"Decisions occur every time you look for solutions to different issues. There may be minor issues (for instance changing work schemes) or wider issues / problems (accessing EU funds for purchasing new equipment). Decision is a process that involves several stages. It begins with documentation on the respective issue or problem (by studying relevant documents – technical, legal), continues with discussions with other people related to the issue. On the basis of documentation and discussions, a series of alternative solutions to the issue /problem are defined. Decision means to choose from several alternatives the one that best fits the context in which the problem appeared."
P1 - SK	
Pre-study	I do not do many decision as I am not manager or supervisor.
Post-study	I make very high number of decision starting from early morning, what to eat ending only when I get to sleep.

It is very important, not only for innovators and technical professionals, to be able to clearly state their idea of the business in a way that everyone understands it. Every tested subject put higher mark to the question regarding to the problem, but not all of them fully understood what it means to clearly express them.

Sometimes people need to be set in front of mirror (or in our case embedded humanist) in order to find out where are their weak points.

Table 7. Changes in understanding simplicity in verbalization

Question 4: **Is it important for an innovator to be able to summarize his work in one easily sentence**	
P1 - BiH	
Pre-study	When you get idea, it is unstoppable

Post-study	Change of vocabulary in more understandable way and more appropriate for population (less medical and IT words)

Tested subjects did not consider some elements of RRI as being important either directly in their work or as an externality of the work.

The D-STIR method helped to change this and broaden their perspective. Furthermore, the participants initially stated that there is not bigger need for interactions between natural and social scientists; however, by the end of the observation period, there was a considerable change in the opinions.

As tested subjects are from business environment, they were able to find out a way how to utilize connection of multidisciplinary approach via merge of societal and natural sciences.

As proven by the statements below, provided by tested subjects, new perspectives gives them idea how to improve their company or innovation process that can be considered as big success of the STIR process.

Table 8. Changes in attitude on axis natural and social sciences

Question 8: **Is it important to involve environmental aspects into research/innovation process in your research and device?**	
P1 - BiH	
Pre-study	It is already involved
Post-study	Need to think more on device after usage and find solution for re-use, re cycle or similar
P1 - HR	
Pre-study	It is important to involve environmental aspects into the research/innovation process of our Company in terms of disposal of the waste material
Post-study	Smart and innovative use of resources reduces energy and pollution loss
Question 6: **If you have a degree in natural sciences: Is it important to involve social science aspects (sociology, psychology, philosophy, ethics, etc.) in your work?**	
P1 - CZ	
Pre-study	"Good relationships and good mood in the lab or office increase the success, but still the most important thing is to be precise and have a knowledge in genetics."

Post-study	"Both understandings of the customer behavior or expectation and choosing of proper marketing methods are crucial, namely in such specific and complicated field as genetic testing."
Question 9: **Is it important to involve natural science aspects into research/innovation process of your company?**	
P1 - HR	
Pre-study	I don't see where it makes sense
Post-study	Yes, involving science into research/innovation process improves product performance
Question 11: **Is it important to involve ethical aspects into the research/innovation process in your company?**	
P1 - HR	
Pre-study	(It's irrelevant to involve ethical aspects into the research/innovation process)
Post-study	It is very important to respect someone else's property, especially in an intellectual sense
P1 - RO	
Pre-study	"Ethics? What do you mean by this? (after a brief explanation from my side) Yes, we have dealt with this, as we are interested in getting the customer satisfied. If the customer has something to complain about, you must explain him that for the money he has given you cannot give him a better product because that product has higher costs."
Post-study	"We must be fair both in the commercial relations with the operators outside the company and in the relations inside the company. You cannot have an attitude that violates the rules, the ethical principles that you have assumed."
Question 13: **Would it be useful to integrate social, economic, and ethical aspects into the R&D&I process of natural sciences? Same as question 6.**	
P1 - HR	
Pre-study	Maybe, to improve product, management, progress of the Company in general
Post-study	It would be useful because by incorporating all these aspects, we can get a better product which can be tailored to all market requirements

According to the participants' opinion, it was beneficial for them to participate in this research. Several topics had been discussed, which he had not considered previously mainly

utilization of social sciences or vice versa utilization of scientific approach depending on the field and background of tested subjects.

Some participants found the D-STIR method interesting as it provided a new approach to their work and they were able to step out of their comfort zone. As a conclusion, in the case of all participants the main output of the research was broadening their horizon with the integration of social science aspects into natural science ways of thinking or vice versa. Also coaching aspect of the method was appreciated and results can be used in the company further.

By the end of the 12-week participant-observation period, all participants were made aware of new concepts that can be utilized in their companies.

Although it has to be stressed out that RRI concept is more importand for R&I focused companies and bigger companies that can utilize RRI in marketing.

A further significant result in connection with decision-making is that after having reflected on the process they could identify previous decisions where now they would prefer to adopt a different solution in contrast with the original one.

Summarized key results of the STIR process can be seen in Table 8 below.

Table 8. Main results of the D-STIR process

Summary of results achieved by STIR pilot
P1 - GE
On the personal level, the method has reminded the interview partner of problems and thus gives me new impulses to tackle this tasks. It was an incredible added value to have a reflection partner or brainstorming partner. Through profound questions you could reflect decisions that have been already made, which is very important in higher positions.
LP - RO
STIRed person becomes more aware of the fact that looking from a different perspective to a specific problem could contribute to a better understanding of that problem and to the identification of a more appropriate solution. - Assume the idea of formalization (with some support from D-STIR EHs) of their company internal procedure for the probation of new employees; - Necessity of developing / find / design some solutions for improving the time

management in projects implementation; - Willingness to continue the STIR interactions with EH and the suggestion that these meetings to be extended to wider groups of SMEs.
P1 - SK
Main result was improvement of project and time management skills of tested subject. Also there has been organizational problems in SME that was addressed by the STIR. Ultimate result is idea for the new research project for the SME derived from the talks and future plans of tested subject.
P1,2 - CZ
Both participants showed a considerable improvement over time of the pilot study. They have been more open-minded, have thought critically about their decision-making processes and have been ready to deliberate modulations. The participant P1 has started to work more with customers and their requirements and has taken account many economic and social aspects (marketing strategy, market research, price policy etc.). The profitable company is the future goal of this participant because when she finishes the Ph.D. study in the university (planned at the end of this year), she can continue to work for the company. The participant P1 successfully reached all of three phases of modulation through the discussion of many topics during the pilot study. The participant P2 has started to think about the company processes more in the business way and has partly accepted economic and social aspects as possible important points in her work. She has realized, that only due to the profitable company can solve many ethical issues connected with the company-university relationship (e.g. to move to their own labs, to start work with their own equipment, to deal with conflicts of interests) which is a significant stressor for her. Still, the participant P2 is a strongly researched-oriented person with a typical mindset that can be connected to natural sciences, less open to social science/humanities.
P1 – SL
Stired person realized that it is not so difficult to generate more alternatives for their decision options and at the same time to follow RRI. He would like to use method at a daily work, but the method is now to complex.
P1 - HR
STIR was useful for the Company to get information about innovation possibilities and improvement of the business, especially in the field of “open access” where many suggestions of the Humanist were accepted as a new way of thinking on specific topic. Being focused more on technical details of the products, STIR provided new ideas for better marketing of products and better communication with public and future clients.
P1 - BiH

Changes in the way of thinking: There are funds which support innovators and innovative ideas, he must not rely on loan or state help (which is on low level for innovations in BiH). He is interested to learn more about EU projects, funds and how to apply. It is important to point to innovators and researches of importance on simple language. This researcher tried prototype on himself and got visible results and he shall use himself as example of device benefits, which is not that usual.

As it can be interpreted from the summary results of D-STIR application process, the results variy significantly – they are derived from the competence of embedded humanist and also accessibility of the tested subject.

Overall, there was significant improvement on personal level and in some minor cases (such as development of new research project), changes that can influence company itself occurred.

Although the method is still quite complicated and time consuming, so it implies, if further used, well trained professional embedded humanists must which should offer it as professional service.

All in all, the D-STIR is kind of "couching" which is currently in demand. For continuous usage in the business environment, it should be further adjusted. Couching is not usual in Danube Region and this aspect of D-STIR can have significant benefit in the thinking of companies and thus increasing their business potential.

6. Conclusions

The pilot projects were implemented in private companies.
Depending on the position of tested subject within the company, D- STIR was focusing either on the person itself or on whole organization. If the person involved in the questionnaire phase was a regular employee, that the focus was on himself/herself.
On the other hand, if the person involved in the D-Stir process was the manager of the company, than the focus was on the company and its processes.

Quantitative results proved that D-STIR has proven but limited effectiveness in an Eastern European setting, which can be seen on only incremental improvements of the quantitative markers.

D-STIR tools can be further used in companies although several adjustments to the method are still needed, mainly in what concerns its utilization in connection to real-life problems.

The examples of reflexive learning and changes in practice tend to be based on first-order reflexivity, which involves more efficiently accomplishing predetermined goals and values, rather than second-order reflexivity, which involves questioning predetermined goals and values.

However, the application of the method in the transition countries is influenced by special features:

1. The context in which the companies operate (former socialist environment) influenced their decisions.
2. Companies show limited knowledge on broader spectrum of innovation such sa organizational innovation, marketing innovation. Currently they see innovation only as development of product or service.
3. Companies tend to overlook externalities that are produced by them, which in long term can damage their reputation thus making RRI good tool to limit this risk.
4. All the above mentioned changes required an inordinate amount of time discussing basic social, ethical and economic that's need to be further developed.

All in all, in this activity the adjusted D-STIR methodology was applied in order to integrate Responsible Research and Innovation dimension to organizations and to individuals.

At company level, the results not very satisfactory as it is hard to change something through one person only, even if it is a manager. At individual level, there were some improvements, although they were smaller than in the academia pilots.

Overall, 7 empirical pilot actions based on the D-STIR methodology were conducted.

Pilots were held in very different companies in terms of focus, size and business model.

We found some changes in thinking although it was really hard to assess. Reflexive learning was identified as well as value deliberation, furthermore the awareness regarding their decisions increased and the ad hoc characteristics of their work decreased. We identified the specifications of the post-socialist innovation system, which influence the possibilities of the implementation of responsible innovation: manufacture/sell approach, not enough investments in processes which do not bring immediate money, low understanding of innovation process.

In summary, we realized that D-STIR is able to support reflexive learning and practical changes in the characteristics of the Danube innovation ecosystem.

However, there are some limitations of the methodology and numerous questions were raised which can be basis for further tests and research.

Results of the D-STIR projects highly depend on the skills of the embedded humanist. It is clear that if he or she is an economist, the economic issues will be emphasized during the on-site research, while if the humanist is an ethical expert, the ethical concerns of the research would be in the focused.

This should be addressed further and already trained embedded humanist have to conclude another testing.

Overall it was hard to recruit SMEs for the pilot, often informal relationships had to be used on both high and low interaction SMEs.

This shows that method is not attractive for the companies and its marketing approach has to be improved.

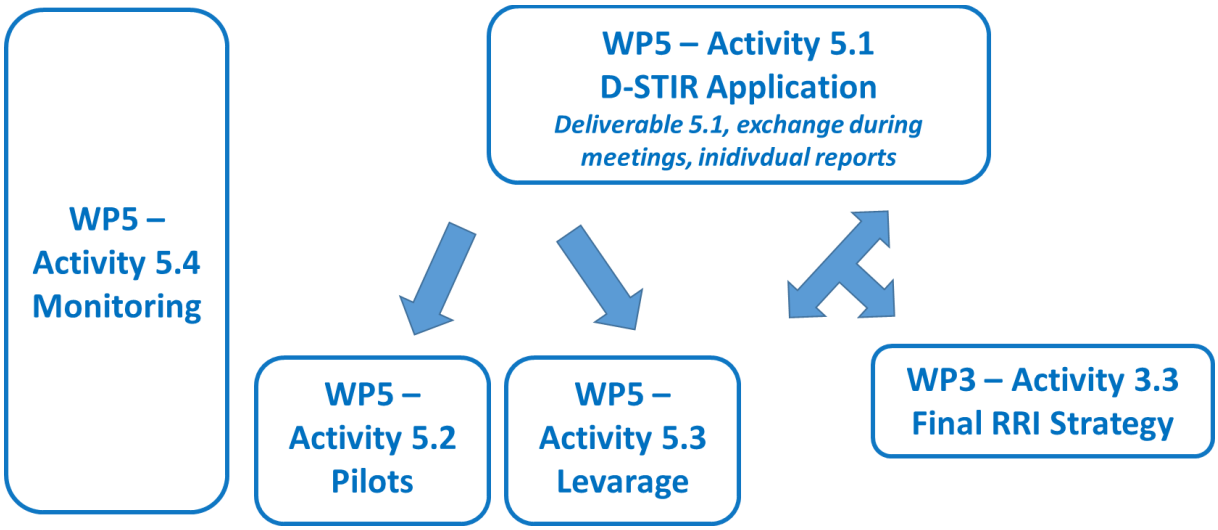
Some results of the D-STIR application cannot be accessed right after its end, so there is a need to further develop monitoring mechanisms after longer periods of time, in order to find out if D-STIR process had brought any long-term results.

Moreover, pre- and post- evaluation questionnaires showed overall slight improvement in understanding of RRI, but the formulation of questions was not clear and should be improved in order to achieve better quantitative results. Some of the questions were misleading and tested subjects had troubles with understanding. From the general focus of the talks we can conclude that there is severe lack of thinking about ethics, externalities and more progressive types of management.

There is a lot of space for improvement in the field of project management, time management and overall coaching of employees of the companies. Method is very time consuming and should be more flexible in order to increase cost(time)/benefit ratio otherwise it will not be used on broader scale in business sector.

Next steps

This report and the individual learnings from each pilot form the basis of the next activities in D-STIR, summarised in the following image:



7. Annex 1 - Pre and post study questionnaire

MAIN QUESTIONS OF THE INTERVIEW:

1. **What does innovation mean in your interpretation?**

2. **What does research and development (R&D) mean in your interpretation?**

3. **How many decisions do you make a day during your work?**

None	1 – 2 – 3 – 4 – 5 – 6	Many
Because (If you suddenly cannot think of anything, feel free to leave it empty)		

4. **Is it important to a natural scientist to be able to summarize his/her research topic in one easily understandable sentence?**

Not important at all	1 – 2 – 3 – 4 – 5 – 6	Very important
Because (If you suddenly cannot think of anything, feel free to leave it empty)		

5. **Could you summarize your own research topic in one easily understandable sentence?**

I could not do it	1 – 2 – 3 – 4 – 5 – 6	I could do it without any problem
My research topic in an easily understandable sentence is the following: (If you suddenly cannot think of anything, feel free to leave it empty)		

6. **Is it important to involve some social science aspects (sociology, psychology, philosophy, ethics, etc.) in the thinking of natural sciences?**

Not important at all	1 – 2 – 3 – 4 – 5 – 6	Very important
Because (If you suddenly cannot think of anything, feel free to leave it empty)		

7. **Does it make sense to involve social scientists into natural science researches?**

It makes no sense	1 – 2 – 3 – 4 – 5 – 6	Very important
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

8. **Is it important to involve environmental aspects into natural science researches?**

Irrelevant	1 – 2 – 3 – 4 – 5 – 6	Very important
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

9. **Is it important to involve social aspects into natural science researches?**

Irrelevant	1 – 2 – 3 – 4 – 5 – 6	Very important
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

10. **Is it important to involve economic aspects into natural science researches?**

Irrelevant	1 – 2 – 3 – 4 – 5 – 6	Very important
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

11. Is it important to involve ethical aspects into natural science researches?

Irrelevant	1 – 2 – 3 – 4 – 5 – 6	Very important
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

12. Can social, economic, ethical, and environmental aspects influence the R&D&I process in natural sciences?

Not at all	1 – 2 – 3 – 4 – 5 – 6	Completely
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

13. Would it be useful to integrate social, economic, and ethical aspects into the R&D&I process of your company?

Not at all	1 – 2 – 3 – 4 – 5 – 6	Completely
Because: If you suddenly cannot think of anything, feel free to leave it empty ()		

14. Could be cooperation between natural scientists and humanist during the R&D&I activities useful?

Not at all	1 – 2 – 3 – 4 – 5 – 6	Completely
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

15. In your opinion, what makes the research/innovation responsible?
(If you suddenly cannot think of anything, feel free to leave it empty)

16. How responsible do you consider yourself?

Not at all	1 – 2 – 3 – 4 – 5 – 6	Completely
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

17. What do you think about STIR? Was it useful? Was it a barrier? Did you gain benefit from it? or Was it "just a talk"?

Useless	1 – 2 – 3 – 4 – 5 – 6	Useful
Because: (If you suddenly cannot think of anything, feel free to leave it empty)		

18. What did STIR provide to you? Summarize it in two sentences.

ANNEX 2 – Reports on D-STIR Pilot Application in Business Environments, including Low interaction SMEs participating at D-STIR

SIC - Czechia

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Lucie Nencková	January-April 2018	Milena Jindřichová	High	Manager	1x per week	1 – 1,5 hour
Lucie Nencková	January-April 2018	Barbora Bolfíková	High	Researcher	1x per week	1 – 1,5 hour

Results of the pre and post study questionnaires:

Milena Jindřichová

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	5	3
Q4	6	3
Q5	6	4
Q6	3	6
Q7	3	6
Q8	4	6
Q9	4	4
Q10	6	6
Q11	6	6

Q12	5	6
Q13	5	6
Q14	6	3
Q16	3	4

Most of the questions show improvement between pre and post study interview.

Barbora Bolfíková

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	2	2
Q4	6	6
Q5	6	5
Q6	3	5
Q7	3	3
Q8	6	5
Q9	2	6
Q10	5	6
Q11	4	6
Q12	3	6
Q13	3	6
Q14	1	5
Q16	5	5

Most of the questions show significant improvement.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	Genrex s.r.o.
Country	Czech Republic
Field of Activity of SME	Genetic testing of animals
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	The company provided different animal testing mainly focused on hereditary diseases and parentity. The vast majority of testing is focused on diseases of dogs, testing of cats or cattle diseases is the minority. Some new tests are prepared also for parrots (sex). The company is located in the university campus and collaborates actively in some R&D projects (testing of wolf and crossbred dogs), but also provides its own research projects focused on new methods of testing etc.

Describe process, how did you persuade SME to attend STIR pilot

Meetings, phone calls and communication via e-mail; on the base of the previous collaboration between SIC and the company

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

All participants were chosen according to the successful cooperation in the past. All of them received a grant provided by Central Bohemian Innovation Centre (Innovation voucher) in the last year.

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

I worked in parallel with two participants from the GENREX company – one manager (participant P1) and one researcher (participant P2). We met personally 24 times (12 times

with each person) during three months for 1 – 1,5 h. I followed the recommendation of the responsible project partner and respected the original method of STIRing. Our meetings were held in the lab, but from the safety reasons, we only talked (in the original STIR method are interviews led during the lab work).

b) Main topics discussed

During our meetings, we talked mainly about economic and social aspects related to the profitability of the company, because it is the significant issue of the company and naturally the main interest of all SMEs. The topics were related to the price policy, marketing strategy, marketing research, communication strategy towards customers, customers behavior, proper using of web pages and social media (SEO optimization), stuff management, trainee involvement and other related soft skills/methods. We also discussed environmental issues related to the lab work and ethical aspects related to the strong company-university connection.

The core activity was focused on the market research as a key factor for the successful company business in the future. Together with the participant P1, we developed a pilot project based on snow-ball method on-line interviews to explore the market. We analyzed results of the research with both participants and discussed all possibilities of using information for the market strategy development and related business activities.

c) Describe changes done by STIR on personal level

Both STIRed persons changed some of their attitudes or work habits. The expectations towards the manager (P1 participant) were higher, because of her open personality. After 12 weeks of the STIR method using, she is able to actively use many soft skills, which we discussed during our meetings. The researcher (P2 participant), who is a strong research-oriented person with more closed personality, accepts soft methods as relevant skills important for their business.

d) Describe changes done by STIR on organization level

The main change has been the acceptance of the soft skills/methods and using them to achieve the profitability of the company.

e) Make summary of results achieved by STIR pilot

Both participants showed a considerable improvement over time of the pilot study. They have been more open-minded, have thought critically about their decision-making processes and have been ready to deliberate modulations.

The participant P1 has started to work more with customers and their requirements and has taken account many economic and social aspects (marketing strategy, market research, price policy etc.). The profitable company is the future goal of this participant because when she finishes the Ph.D. study in the university (planned at the end of this year), she can continue to work for the company.

The participant P1 successfully reached all of three phases of modulation through the discussion of many topics during the pilot study.

The participant P2 has started to think about the company processes more in the business way and has partly accepted economic and social aspects as possible important points in her work. She has realized, that only due to the profitable company can solve many ethical issues connected with the company-university relationship (e.g. to move to their own labs, to start work with their own equipment, to deal with conflicts of interests) which is a significant stressor for her. Still, the participant P2 is a strongly researched-oriented person with a typical mindset that can be connected to natural sciences, less open to social science/humanities.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

Economic and social aspects involvement are crucial for the Genrex company to be profitable in the future.

g) Estimate which of the results achieved by your pilot are transferable to other organizations

A very good reaction of high participated persons was on the practical demonstration of using soft skills/methods. We discussed different aspects related to the result of the pilot project according to the personal interests of each participant together with respect to the main goal to enhance the profitability of the company.

STIR in future – do you think you will implement STIR methodology in future?

I hope, I will.

Do you think that STIR methodology has marketable value?

Yes, absolutely.

Description of low interaction SMEs and follow-up work with them:

SME – 1

Name of SME	G IMPULS Praha, spol. s r.o.
Country	Czech Republic
Field of Activity of SME	*Geophysical surveys, measurements and research in the field of geophysical methods*
Description of SME	The company was founded in 1994. It has two owners and 10 regular employees (including owners). It is ISO 9001 certified. Research activities of the company involve about 25% capacity. The research is mainly focused on geoelectric and seismic methods for studying of geological environment.
Name of person filling questionnaire	Jaroslav Bárta
Position and qualification of person filling questionnaire	Managing Director/Owner; CSs. (equivalent as Ph.D.) in Geophysics
Summary of his/her work in the company	Company Leadership, Consultant/Support of young workers, Leading Designer for Key Contracts, Researcher
How did you persuade them to join STIR pilot?	Meetings, phone calls and communication via e-mail; on the base of the previous collaboration between SIC and the company

SME – 2

Name of SME	Farma Kunclův mlýn
Country	Czech Republic
Field of Activity of SME	Agriculture, collaborative research with the university in the field of animal production
Description of SME	A small family company oriented to sustainable and BIO animal and crop production. The company also provided the agricultural tourism in the territory and related activities.
Name of person filling questionnaire	Petr Kuncl
Position and qualification of person filling questionnaire	Managing Director/ Owner; family member
Summary of his/her work in the company	Management
How did you persuade them to join STIR pilot?	Meetings, phone calls and communication via e-mail; on the base of the previous collaboration between SIC and the company

SME – 3

Name of SME	SVÚM a.s.
Country	Czech Republic
Field of Activity of SME	Research and development of metallic materials, plastics and composites
Description of SME	The company is a research organization listed in the Council for Research, Development and Innovation in the Czech Republic and specializing in the field of basic and applied research and development of metallic materials, plastics and composites. It has accredited laboratories and testing rooms and is one of the most important research organizations of applied material research and testing institutions in the Czech Republic. SVUM a.s. regularly

	participate in research projects supported by the Ministry of Education of Youth and Physical Education, the Ministry of Industry and Trade, the Technology Agency of the Czech Republic, the Grant Agency of the Czech Republic. and international projects supported by the EU.
Name of person filling questionnaire	Ivo Hain
Position and qualification of person filling questionnaire	Chairman of the Board; Law and economic education (M.A.)
Summary of his/her work in the company	Chief Executive Officer
How did you persuade them to join STIR pilot?	Meetings, phone calls and communication via e-mail; on the base of the previous collaboration between SIC and the company

SME – 4

Name of SME	TATAA Biocenter, s.r.o.
Country	Czech Republic
Field of Activity of SME	Biotechnology
Description of SME	The Czech company is a part of the world's largest provider of hands-on training in qPCR, Europe's leading provider of nucleic acid analysis services by qPCR, and Sweden's most comprehensive distributor of qPCR products TATAA Biocenter AB. TATAA has from the start had a constant activity in research and development to keep us updated and expand our knowledge in qPCR and related fields through both in-house research, and collaborations with external partners and EU-funded consortia.
Name of person filling questionnaire	Alice Mášová

Position and qualification of person filling questionnaire	Managing Director; Ph.D. in Biochemistry
Summary of his/her work in the company	Representation of the company, head of the group, organizing, marketing strategy
How did you persuade them to join STIR pilot?	Meetings, phone calls and communication via e-mail; on the base of the previous collaboration between SIC and the company

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

All of low interaction companies were invited to the workshop realized on May 22nd in the Central Bohemian Innovation Centre in Prague - Dolní Břežany, Czech Republic. The meeting was organized together with IOP (ELI Beamlines).

Summarize agenda of the meeting/s

The main topics presented at the workshop were focused on (1) the basic facts about RRI and introduction of the project, which is implemented by the Technology Agency of Czech Republic to the HORIZON2020 (new trends and future of RRI), (2) Responsible Research and Innovation (RRI) and the STIR method as one of the tools of its implementation in the environment of SMEs in the Central and Eastern European region; (3) innovation procurement (PPI) and (4) tax deductions in the field of R&D in the Czech Republic.

Summarize reaction and feedback of the low interaction SMEs on STIR method

The workshop was really successful because of well experienced speakers and a big number of participants from different sectors of SMEs (9 new SMEs participated!). There was a big discussion about practical aspects of STIR method and possible involvement of other companies was offered.

Are any of the low interaction SMEs interested in implementation of STIR?

Two of low interactive companies explicitly declared, that they are not interested in implementation of the STIR because the method is too much time-consuming.

ADRSE – Romania

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Monica Tudor	February-May 2018	-	High	Head of Legal department	1x per week	1.15 hour

Results of the pre and post study questionnaires:

Head of legal department

Question of the interview	Scores during the pre-study interview (high interaction)	Scores during the post-study interview (high interaction)
Q3	**4**	**(5)**
Q4	**6**	**(5)**
Q5	**6**	**(6)**
Q6	**3**	**(6)**
Q7	**6**	**(6)**
Q8	**6**	**(6)**
Q9	**6**	**(6)**
Q10	**6**	**(6)**
Q11	**6**	**(6)**
Q12	**6**	**(between 4 & 5)**
Q13	**6**	**(6)**

Q14	**6**	**(6)**
Q16	**6**	**(6)**

Overall good scores were slightly improved by STIR process.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	**S.C. BALCANIC PROD SRL**
Country	Romania
Field of Activity of SME	Industry
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	manufacturer of plastic films, bags producer

Describe process, how did you persuade SME to attend STIR pilot

An Invitation letter was elaborated and sent to SME. The letter pointed out that the participation in the D-STIR pilot action can result in a series of benefits to drive business to success by improving the abilities to grasp opportunities, to avoid and manage risks, increase adaptability to changing circumstances and improving the chances of success in accessing non-reimbursable funds for SMEs.

Consultancy specialized companies that provide support for accessing non-reimbursable funds for SMEs was used as gatekeepers and facilitators for contacting the SMEs. Snowball method was used for identifying the potentially interested SMEs.

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

Criteria used in selecting the SMEs was their openness for innovative projects implementation and their readiness in answering to the pre-study interview questions.

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

We met once a week (each Saturday), due to the fact that the factory works 24/24 h, 7 days per week and Saturday was considered more appropriate by the STIRed person.

b) Main topics discussed – be as detailed as possible

- Social responsibility of the company through their involvement in sustaining educational projects, rural community development;
- Recruitment process for new employees;
- Company's relationship with Romanian research and education organizations;
- Ethics in relation with the internal (employees) and external (clients, suppliers, state authorities etc.) actors of the company;
- Environmental impact of their company's activities;
- Main drivers for the STIRed person decisions into the company: profitability, compliance with the legal requirements, compliance with the funding scheme requirements for the projects co-funded through EU money;
- Process of turning the innovative business idea into practice at company's level;
- Advantages and costs of the embedding social responsibility into the business strategy development;
- Project management;
- Time management in project implementation.

c) Describe changes done by STIR on personal level

STIRed person becomes more aware of the fact that looking from a different perspective to a specific problem could contribute to a better understanding of that problem and to the identification of a more appropriate solution.

d) Describe changes done by STIR on organization level

The changes are linked with the STIRed person activities carried out into the company:

- Increase STIRed person awareness about the development on an internal procedure for recruiting new employees in order to ensure objectivity, transparency and gender equity in this process;

- To propose a re-frame of the initial time schedule in the company's investment project implementation;

- Willingness to assume an active role in increasing citizens awareness related to the reusing the plastic bags through sustaining public campaigns in this respect.

e) Make summary of results achieved by STIR pilot – be as detailed as possible

- Assume the idea of formalization (with some support from D-STIR EHs) of their company internal procedure for the probation of new employees;

- Necessity of developing / find / design some solutions for improving the time management in projects implementation;

- Willingness to continue the STIR interactions with EH and the suggestion that these meetings to be extended to wider groups of SMEs.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

- Formalization of internal company's procedure for the probation of the new employees;
- Time management in project implementation;
- Identification of an innovative projects ideas portfolio as support for creation of a long-term business strategy of responsible business development.

g) Estimate which of the results achieved by your pilot are transferable to other organizations

Company's procedures for the probation of the new employees (after their development).

STIR in future – do you think you will implement STIR methodology in future?

Yes, in my daily work I try to use STIR protocol principles during the different issues discussed with my research team.

Do you think that STIR methodology has marketable value?

Could have in the future when, I hope that citizens' pressure on the RDI system will increase in order to make all the actors involved in this process more responsible on societal concerns. For the business sector, nowadays, STIR protocol could have marketable value if will be embedded into the consultancy companies that provide support for SMEs project design and implementation.

<u>Description of low interaction SMEs and follow-up work with them:</u>

SME – 1

Name of SME	**SC KEMN PACK SRL**
Country	Romania
Field of Activity of SME	Industry
Description of SME	manufacturer of packages from corrugated cardboard
Name of person filling questionnaire	**Liliana DRAGOMIR**
Position and qualification of person filling questionnaire	Economic manager / economist
Summary of his/her work in the company	**Supervising the company's production activities, economic forecasting, tracking the financial performance of the company**
How did you persuade them to join STIR pilot?	Invitation letter was elaborated and sent to SME. Consultancy specialized companies that provide support for accessing non-reimbursable funds for SMEs was used as gatekeepers and facilitators for contacting the SMEs.

SME – 2

Name of SME	**SC SMART GROUP SOLUTIONS SRL**
Country	Romania
Field of Activity of SME	Services
Description of SME	Business consulting services for SMEs
Name of person filling questionnaire	**Stefania MARMUREANU**
Position and qualification of person filling questionnaire	Economic adviser / Economist
Summary of his/her work in the company	**Business consulting services for SMEs in writing projects and implementing them**
How did you persuade them to join STIR pilot?	Invitation letter was elaborated and sent to SME. Consultancy specialized companies that provide support for accessing non-reimbursable funds for SMEs was used as gatekeepers and facilitators for contacting the SMEs.

SME – 3

Name of SME	**SC AG GrupInstal SRL**
Country	Romania
Field of Activity of SME	Industry
Description of SME	electric and ITC industry
Name of person filling questionnaire	**Virgil GUZU**
Position and qualification of person filling questionnaire	Owner & manager of company / Electrotechnical and telecommunications engineer
Summary of his/her work in the company	**Management of the company**
How did you persuade them to join STIR pilot?	Invitation letter was elaborated and sent to SME. Consultancy specialized companies that provide support for accessing non-reimbursable funds for SMEs was used as gatekeepers and facilitators for

	contacting the SMEs.

SME – 4

Name of SME	**SC IZA SRL**
Country	Romania
Field of Activity of SME	Industry
Description of SME	plastic industry
Name of person filling questionnaire	**Nicu IOANEȘ**
Position and qualification of person filling questionnaire	Manager / Economist
Summary of his/her work in the company	Managing the company's relationship with customers, suppliers. Together with his father (who is the company's owner) working on the development of business through projects.
How did you persuade them to join STIR pilot?	Invitation letter was elaborated and sent to SME. Consultancy specialized companies that provide support for accessing non-reimbursable funds for SMEs was used as gatekeepers and facilitators for contacting the SMEs.

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

Work coffee

Summarize agenda of the meeting/s

- Short reminder of the D-STIR project (objectives and role of the pilot actions) - Briefing of the STIR method

- The main topics tackled during interactions with the representative of high interaction SME (revealing the responsible innovation elements)
- Brief presentation of the changes that occurred during interactions with the high-interaction company representative and the potential / probable long-term benefits (helped by STIRed person testimony)

Summarize reaction and feedback of the low interaction SMEs on STIR method

Low interaction representatives have emphasized the fact that, such a project that targets to increase the responsibility at the level of private small companies, must be accompanied by similar actions targeting the population as a whole, public institutions (especially the policymakers) and other actors engaged into the new technologies development. This ensures a better targeting of the project goal.

The presence and direct testimony of STIRed person from the high interaction company contributed to the success of the meeting. Thus, non-interaction companies' representatives have positively assessed the capacity of STIR method to contribute to positive changes at the level of private small company. In the same time, they have emphasized that the modulations / changes are specific to each company and differ from one STIR person to another.

In the same time, low interaction companies' representatives, agreed on the fact that there is a general framework for responsibility in innovation that could be addressed at the level of all SMEs from their region.

They stressed that a neutral and external dialogue partner can make an important contribution to adjusting their business models especially because they are currently looking for answers and solutions to big challenges (environmental, economic, and social) in a highly competitive business environment.

Are any of the low interaction SMEs interested in implementation of STIR?

Low interaction SMEs representatives are willing to participate in larger discussion / training groups, along with other SME representatives and RRI coaches. They say that together, can learn from each other's experiences, receive knowledge from business coaches, and find much easier some responsible solutions to their business development problems.

Bwcon - Germany

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Sina Speer	January-May 2018	-	High	Manager	0-2x per week	30 min.
Sina Speer	January-May 2018	-	High	Team member	0-2x per week	30 min.
Sina Speer	January-May 2018	-	High	Team member	0-2x per week	30 min.

Average results of the pre and post study questionnaires:

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	5,25	5,25
Q4	4,75	4,75
Q5	5	5
Q6	3,25	3,25
Q7	3,5	3,5
Q8	5,25	5,25
Q9	4,25	4,25
Q10	5,75	5,75
Q11	0	0
Q12	3,25	3,25
Q13	4	4

Q14	4,75	4,75
Q16	4,5	4,5

Change between pre and post study interview did not occur, mainly due to the societal background of STIRed people.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	bwcon GmbH
Country	Germany
Field of Activity of SME	Innovation
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	Supporting and Consulting startups or established companies to create/accelerate innovative ideas in any form

Describe process, how did you persuade SME to attend STIR pilot

Due to the fact that the SMEs are involved in the innovation field, it was easy to convince them to learn a new innovation method.

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

Our focus was to find SME in the field of innovation

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

13

b) Main topics discussed – be as detailed as possible

Main topics are

- Decision finding in consumer projects
- Internal change management
- Team process

c) Describe changes done by STIR on personal level

On the personal level, the method has reminded the interview partner of problems and thus gives me new impulses to tackle this tasks.

d) Describe changes done by STIR on organization level

A small sustainable success: bwcon could implement a recycle management

e) Make summary of results achieved by STIR pilot – be as detailed as possible

In addition to the small successes described above, it was an incredible added value to have a reflection partner or brainstorming partner. Through profound questions you could reflect decisions that have been already made, which is very important in higher positions.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

-

g) Estimate which of the results achieved by your pilot are transferable to other organizations

-

STIR in future – do you think you will implement STIR methodology in future?

No, not in the purest form. Maybe you can merge it with other innovative methods

7. Do you think that STIR methodology has marketable value?

See point above

Description of low interaction SMEs and follow-up work with them:

SME – 1

Name of SME	Earlybird GmbH
Country	Germany
Field of Activity of SME	Business Development / Marketing & Communications
Description of SME	Business Development / Marketing & Communications
Name of person filling questionnaire	Emanuel Vonarx / Elisabeth Meyer
Position and qualification of person filling questionnaire	Position: CEO / CMO Qualification: BWL / Coroporate Communications
Summary of his/her work in the company	CEO / CMO
How did you persuade them to join STIR pilot?	personal relationships

SME – 2

Name of SME	Scitis.io GmbH
Country	Germany
Field of Activity of SME	Data
Description of SME	scitis.io is the manufacturer-independent Industry 4.0 platform for industry, plant and machine tool engineering. Highly scalable, secure and high-performance, to start digitization quickly and

	efficiently.
Name of person filling questionnaire	Ralf Kölle
Position and qualification of person filling questionnaire	Position: CEO Qualification: Mechanical Chemical Engineering
Summary of his/her work in the company	CEO
How did you persuade them to join STIR pilot?	personal relationships

SME – 3

Name of SME	Clesgo GmbH
Country	Germany
Field of Activity of SME	Data
Description of SME	We make smart engineering tools accessible, affordable, and easy to use for every manufacturer working on innovative solutions
Name of person filling questionnaire	Sebastian Pena Serna
Position and qualification of person filling questionnaire	Position: Founder Qualification: Mechanical Engineering (Diploma) PhD (in progress) Computer Science
Summary of his/her work in the company	Founder and Managing Director Current main task: Strategic positioning of the company
How did you persuade them to join STIR pilot?	personal relationships

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

Bilateral

Summarize agenda of the meeting/s

To present results of the STIR pilot and receive feedback on the method and its possible future use.

Summarize reaction and feedback of the low interaction SMEs on STIR method

• Do not always understand the question • Definition problems (example: How exactly is decision defined? • Doubt if the method works

Are any of the low interaction SMEs interested in implementation of STIR?

Not really, they do not see the added value

Cassovia Life Sciences – Slovakia

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Martin Haranta	February-June 2018	Dušan Jandačka	High	Researcher	1x per week	90 min.

Results of the pre and post study questionnaires:

Dušan Jandačka

Question of the interview	Scores during the pre-study	Scores during the post-study

	interview	interview
Q3	5	5
Q4	4	5
Q5	5	6
Q6	6	4
Q7	4	5
Q8	6	5
Q9	4	6
Q10	6	5
Q11	4	5
Q12	5	5
Q13	5	5
Q14	5	4
Q16	4	6

Overall increase in values between pre and post study interview.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	**CLS Consulting s.r.o**
Country	Slovakia
Field of Activity of SME	CRO, Consulting of R&I, PCO
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	CLS consulting focuses on supporting research and innovation institutes in usage of their potential – as CRO – helping to find new partners. As PCO it organizes 2 major research focused every year-

Describe process, how did you persuade SME to attend STIR pilot

CLS Consulting is sister company of Cassovia Life Sciences, thus we used our informal relationship in order to establish cooperation in STIRing.

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

CLS is cluster of SMEs and research institutes, so we used our network and also we used companies that we do often business with.

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

12 session, once per week due to lack of time – we decided to have one longer session per week. We consider it better than to have more shorter sessions.

b) Main topics discussed – be as detailed as possible

- New projects – main outcome of STIRing is new project between CLS consulting and university - Project management - Time management - Product management - Research strategy building - SODA analysis - Responsibility as goal for improvement project proposal

c) Describe changes done by STIR on personal level

• Better understanding of colleagues • Better understanding of having long-term personal strategy of development

- Improved time management

d) Describe changes done by STIR on organization level

- Improved understanding of long term strategy in order to improve business model
- Application of SCRUM as main project management tool
- Improved design of project proposals by implementing ideas of RRI

e) Make summary of results achieved by STIR pilot

- Main result is development of new project proposal -> creating new revenue
- Necessity of developing / find / design some solutions for improving the time management in projects implementation;
- Development of long term research strategy
- Application of SCRUM

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

- Need to create ethical codex
- Need to create gender strategy
- Need to work on long term development of business plan
- Help to implement SCRUM methodology

g) Estimate which of the results achieved by your pilot are transferable to other organizations

Implementation of SCRUM and development of research strategy.

STIR in future – do you think you will implement STIR methodology in future?

Yes, in my daily work I will use parts of the method in order to iumrpove my decision

making.

Do you think that STIR methodology has marketable value?

Depending on the quality of the coach.

Description of low interaction SMEs and follow-up work with them:

SME – 1

Name of SME	**Kollar Services s.r.o**
Country	Slovakia
Field of Activity of SME	I.T. development
Description of SME	Development of tailor made I.T. solutions.
Name of person filling questionnaire	**Martin Kollár**
Position and qualification of person filling questionnaire	CEO
Summary of his/her work in the company	**Leading company**
How did you persuade them to join STIR pilot?	We used our informal relationship.

SME – 2

Name of SME	**APPBES s.r.o**
Country	Slovakia
Field of Activity of SME	R&D
Description of SME	Omics focused research company
Name of person filling questionnaire	**Martin Lukáč**
Position and qualification of person filling questionnaire	CEO

Summary of his/her work in the company	**Leader of company and its research**
How did you persuade them to join STIR pilot?	APPBES its core member of CLS cluster and we used this relationship to persuade them to joint pilot action

SME – 3

Name of SME	**Výskumný ústav mliekarenský a.s.**
Country	Slovakia
Field of Activity of SME	R&D
Description of SME	R&D and testing of milk and dairy products
Name of person filling questionnaire	**Maritn Tomáška**
Position and qualification of person filling questionnaire	Senior Researcher
Summary of his/her work in the company	**Responsible for leading of scientific work on the projects**
How did you persuade them to join STIR pilot?	We wrote together H2020 proposal and used this relationship for STIR pilot.

SME – 4

Name of SME	**Seraphinea s.r.o.**
Country	Slovakia
Field of Activity of SME	Industry
Description of SME	Design and manufacturing of custom made jewelry
Name of person filling questionnaire	**Michaela Birkusoa**
Position and qualification of person filling questionnaire	CEO
Summary of his/her work in the	She is responsible for marketing and development

company	of new products.
How did you persuade them to join STIR pilot?	We used our informal relationship with the company owner in order to persuade her to join STIR pilot.

SME – 5

Name of SME	**Labaš a.s.**
Country	Slovakia
Field of Activity of SME	Food Industry
Description of SME	Food producer and seller
Name of person filling questionnaire	**Martin Vasiľ**
Position and qualification of person filling questionnaire	Advisor in matters of law
Summary of his/her work in the company	He helps with IPR and contracts during development of new products.
How did you persuade them to join STIR pilot?	We used our previous work in development of probiotic milk

SME – 6

Name of SME	**PROSOFT**
Country	Slovakia
Field of Activity of SME	I.T.
Description of SME	Development of custom made I.T. solution in the field of transportation
Name of person filling questionnaire	**Andrej Bosik**
Position and qualification of person filling questionnaire	Head of development
Summary of his/her work in the	Main responsibility is to manage and control coding

company	excellence in their products.
How did you persuade them to join STIR pilot?	We used family connection in the company.

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

Bilateral – Skype, work dinner

Summarize agenda of the meeting/s

- Short presentation of the D-STIR project
- Explaining pilot and its aims
- Presenting results of the pilot
- Gathering feedback

Summarize reaction and feedback of the low interaction SMEs on STIR method

Feedback was mainly confused – main question was what is the added value and how it can be utilized. At the end company APPBES expressed interest in implementation of the method mainly in order to improve their skills in project proposal writing.

Are any of the low interaction SMEs interested in implementation of STIR?

See point above

Development centre of the Heart of Slovenia – Slovenia

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction

Igor Košir	February-May 2018	-	High	CEO	20 in total	45-120 min.
Igor Košir	February-May 2018	-	High	Marketing Executive	20 in total	45-120 min.

Results of the pre and post study questionnaires:

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	**6**	**6**
Q4	**4**	**6**
Q5	**6**	**4**
Q6	**6**	**6**
Q7	**6**	**6**
Q8	**6**	**6**
Q9	**6**	**6**
Q10	**6**	**6**
Q11	**6**	**6**
Q12	**6**	**5**
Q13	**6**	**6**
Q14	**5**	**6**
Q16	**4**	**6**

Values are similar, which is reflected from the fact the STIRed persons have strong busyness background.

<u>Description of the STIRed SME and qualitative results:</u>

High Interaction SME

Name of SME	Mizarstvo KOS
Country	Slovenia
Field of Activity of SME	Wood processing
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	Mizarstvo KOS is a family owned business, employing around 10 employees. They are designing and producing several higher added value solutions for housing market. They have their own production. They are innovating mainly on product portfolio. The main decision maker also in the R&D activities is CEO Jože Kos.

Describe process, how did you persuade SME to attend STIR pilot

We have customized invitation letter. By phone call, we have asked CEO for a short meeting, where we have introduce activities and potential benefits for the company. They have asked for some flexibility in arranging schedule of the meeting, what we gave them and we got an agreement from their side to participate.

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

For a HI company we have listed candidates based on their innovation history, willingness to cooperate, size and possible long term impact. LI companies were selected based in innovation potential, willingness to cooperate and their availability.

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

We started with pre-study interview, followed by 18 meeting with the HI company and concluded by post-study interview. The main driver of the number of sessions has been available time HI company allocated and the direct benefit they could saw.

b) Main topics discussed

We were talking mainly about their ideas for the new products and decisions they have to accept in regards to these ideas. Around 50% of the time we spent on economics and marketing. Important topics were also strategy and environmental issues.

c) Describe changes done by STIR on personal level

At the moment it is difficult to say, however he might consider at their further decisions more options, which could be generated by using STIR method.

d) Describe changes done by STIR on organization level

It is too soon to comment.

e) Make summary of results achieved by STIR pilot – be as detailed as possible

1) Stired person realized that it is not so difficult to generate more alternatives for their decision options and at the same time to follow RRI. 2) He would like to use method at a daily work, but the method is now to complex.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

We will define the actions in the next period together with STIRed organization.

g) Estimate which of the results achieved by your pilot are transferable to other organizations

The main goal was to test STIR method in the business environment. We have found out that some simplification and modifications should be applied that the method will be attractive for adoption by SMEs. T

STIR in future – do you think you will implement STIR methodology in future?

Yes, the main goal of the method is very appreciated in the SME segment, however

modifications should be applied.

Do you think that STIR methodology has marketable value?

Not at the moment, but have a potential to become.

Description of low interaction SMEs and follow-up work with them:

SME – 1

Name of SME	Kopit d.o.o.
Country	Slovenia
Field of Activity of SME	Manufacturing
Description of SME	They are a privately owned company working in the field of PRECISE METALWARE PRODUCTION. They employ around 30 employees. They mainly export. Their customers are most prominent suppliers in the automotive sector. They have to constantly innovate in the processes and production technics in order to improve efficiency and quality.
Name of person filling questionnaire	Matjaž Koprivnikar
Position and qualification of person filling questionnaire	CEO
Summary of his/her work in the company	Managing the company
How did you persuade them to join STIR pilot?	By promising him, that we need his active participation and his trust in me, that I will be well prepared in order to make it fast and smooth.

SME – 2

Name of SME	Agrolit d.o.o.
Country	Slovenia

Field of Activity of SME	Development, production, distribution and resale of the ecological product for plants nutrition and protection
Description of SME	Agrolit is present nation wide by its own network of shops. They have also very strong activity of R&I, where they are developing their own product. Some of the product are produces in their production line.
Name of person filling questionnaire	Urban Grošelj
Position and qualification of person filling questionnaire	Owner&CEO
Summary of his/her work in the company	He is managing the company
How did you persuade them to join STIR pilot?	By promising him, that we need his active participation and his trust in me, that I will be well prepared in order to make it fast and smooth.

SME – 3

Name of SME	KiK Štarter
Country	Slovenia
Field of Activity of SME	Accelerator for start up companies
Description of SME	The accelerator is offering coworking place, a lot of workshops, events and meeting together with the local entrepreneurial club.
Name of person filling questionnaire	Ignacij Novak
Position and qualification of person filling questionnaire	Member of inner leadership of the accelerator
Summary of his/her work in the company	He is organizing events, offering assistance to the companies involved and key motivator. He also contribute at all important decision.

How did you persuade them to join STIR pilot?	By promising him, that we need his active participation and his trust in me, that I will be well prepared in order to make it fast and smooth.

SME – 4

Name of SME	ETC Adriatic
Country	Slovenia
Field of Activity of SME	Incoming turist provider
Description of SME	They are focus to develop and perform sport and leisure activities for domestic and foreign groups.
Name of person filling questionnaire	Matjaž Jug
Position and qualification of person filling questionnaire	CEO
Summary of his/her work in the company	Managing company
How did you persuade them to join STIR pilot?	By promising him, that we need his active participation and his trust in me, that I will be well prepared in order to make it fast and smooth.

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

We have arranged a bilateral meetings.

Summarize agenda of the meeting/s

First, we have discussed key lessons learned and benefits HI company observed. Than we have fulfill questionnaire.

Summarize reaction and feedback of the low interaction SMEs on STIR method

Main comment was that the method is very complex and long. They wander why is so time consuming?

Are any of the low interaction SMEs interested in implementation of STIR?

Not at the moment.

Development Agency Heart of Istria – Croatia

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Marija Plesec Pongrac	January-April 2018	-	High	Director	1x per week	30-45 minutes
Marija Plesec Pongrac	January-April 2018	-	High	Associate	1x per week	30-45 minutes

Results of the pre and post study questionnaires:

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	**6**	**6**
Q4	**5**	**6**
Q5	**5**	**6**
Q6	**3**	**5**
Q7	**1**	**5**
Q8	**3**	**6**
Q9	**2**	**6**

Q10	**5**	**6**
Q11	**1**	**6**
Q12	**3**	**5**
Q13	**3**	**5**
Q14	**3**	**6**
Q16	**6**	**6**

Significant improvement between pre and post study questionnaire.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	**Multi-sport ltd**. (High interactive Co.), Cerovlje 56 B, 52402 CEROVLJE, Croatia
Country	Croatia
Field of Activity of SME	Furnishing of the sport halls and open sport terrains
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	Multi sport L.L.C. is a small media company which produces innovative and quality products out of selected and quality materials to the highest European standards. The Company is dealing with the following services and products: counseling and planning of facilities, design, production of equipment, installation (montage) of equipment and maintenance of equipment. Provides expert advice on developing general development plans up to project evaluation. It advises on the application of legal regulations when choosing the right equipment and thus helps to create the most efficient solutions and savings for its customers. The Company is located in Pazin, Croatia where it

	owns the office premises and the production hall of 391.4 m², equipped with professional machines and tools, manufactures outdoor and indoor sports equipment according to the highest European standards. The materials used in production are strictly controlled by origin and certified quality. Production of the product is done according to the static calculation, worksheets and welding norms taking into consideration the **standardized dimensions** (provided by EU norms for sport equipment) **safety and materials**. Manufactured and built-in equipment possesses certificates that confirm the manufacture and installation of equipment in accordance with European requirements and norms. The installation of the equipment is done in a safe manner, according to the project and the rules of the profession using professional tools. Due to product durability longer than 10 years, one of the Company's key services is maintenance of the installed equipment. That ensures the durability of products and trust of the clients that invest in it.

Describe process, how did you persuade SME to attend STIR pilot

Used a personal contact to "announce" the first phone call and the involvement of the company in the project D-STIR. Than got in touch by telephone introducing shortly the EH, the Company and the Project then sent the motivation letter

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

We have chosen companies that are successful in their field of business and have shown a desire for cooperation and new knowledge

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

About 12 sessions; It was hard be regular according to the project form, the sessions needed to be adjusted due to the business trips of interviewees and quantity of the work in the Company

b) Main topics discussed – be as detailed as possible

Main topics discussed: Project management/economics - the opportunities to apply for EU funds to fund the innovation activities of the Company and where to find the information about the possible open calls, Project/time management- organization of a daily office work and time management, Marketing- what kind of catalog to publish for the purpose of presentation of the Company at meetings and fairs

c) Describe changes done by STIR on personal level

The interviewees were much more nervous in the beginning of conversations. After the introduction and explaining all this innovation possibilities there was much more conversation instead of “asking question/giving answers” mode

d) Describe changes done by STIR on organization level

STIR provided new ideas for better marketing of products and better communication with public and future clients

e) Make summary of results achieved by STIR pilot – be as detailed as possible

STIR was useful for the Company to get information about innovation possibilities and improvement of the business, especially in the field of “open access” where many suggestions of the Humanist were accepted as a new way of thinking on specific topic. Being focused more on technical details of the products, STIR provided new ideas for better marketing of products and better communication with public and future clients.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

Improve, and retain the skills, knowledge and tools necessary for staff capacity building; information about innovation possibilities and improvement of the business, especially in the field of "open access".

g) Estimate which of the results achieved by your pilot are transferable to other organizations

Raising awareness of the importance of inclusion various aspects (environmental, scientific, ethical etc.) in everyday decision making, to get a better final product, tailored to all market requirements

STIR in future – do you think you will implement STIR methodology in future?

STIR is useful but "hard to implement" in current circumstances of doing business in Croatia. There is a positive opinion about innovation process but insufficient knowledge about possibilities for the Company.

Do you think that STIR methodology has marketable value?

Maybe in the future

<u>Description of low interaction SMEs and follow-up work with them:</u>

SME – 1

Name of SME	IT-CONSULT, Jurja Dobrile 7, Pazin
Country	Croatia
Field of Activity of SME	Consulting, installation, programming and web design
Description of SME	IT-CONSULT was founded in 2015. It provides IT services to users of various profiles. The emphasis of business is on services and consulting

Name of person filling questionnaire	Jerko Ćus
Position and qualification of person filling questionnaire	Director, Engineer ICT
Summary of his/her work in the company	Manages the company's work, implements IT solutions for the clients
How did you persuade them to join STIR pilot?	We collaborate on other projects so we explained the STIR method/pilot and asked to participate

SME – 2

Name of SME	ELTOR L.t.d.
Country	Croatia
Field of Activity of SME	Lighting and lighting fixtures, Construction design, Lighting design
Description of SME	Eltor was founded in 1976, and the company's core business was the production of toroidal transformers. After several years of continuous development, the company today represents a reputable and recognized manufacturer of lighting equipment. The mission of ELTOR is production and installation of modern lighting, following the technological and innovative market trends, recognized by quality, durability, rational consumption and modern design. They are committed to growing profitably and to the opportunity for all employees to contribute, grow, have fun and take pride in their work
Name of person filling questionnaire	Loredana Jurman
Position and qualification of person filling questionnaire	Director, Economist
Summary of his/her work in the company	Manages the company's work

How did you persuade them to join STIR pilot?	We explained the purpose of the project D-STIR, the STIR method itself, RRI in general. And thoroughly explained RRI elements and the possibility for the Company to participate in EU funded projects if takes into account the RRI element(s) during the application. The Company found the information interesting enough to participate

SME – 3

Name of SME	VIPLAST L.t.d.
Country	Croatia
Field of Activity of SME	Production of polyethylene printed and non-printed packaging
Description of SME	VIPLAST is a family-run company that knows that long-term reliability in the manufacturing industry guarantees success, and for more than two decades, each product has built-in knowledge, experience and quality. Viplast today is the leading company in the region of Istria and the coastline in the production of polyethylene packaging. The production program includes the production of polyethylene Peld and Pehd consumer packaging: commercial bags, waste bags, industrial program, various foils and hoses, biodegradable program etc. The satisfaction of employees, partners and consumers, continuous control, high precision of extrusion and the use of quality materials guarantee the quality of business. In the effort to bring the key processes to the

	highest level, Viplast has implemented a quality management system according to ISO 9001: 2008.
Name of person filling questionnaire	Luana Rakovac
Position and qualification of person filling questionnaire	Head of the finance department, Economist
Summary of his/her work in the company	Manages the finances, procurement and communication with clients
How did you persuade them to join STIR pilot?	We explained the purpose of the project D-STIR, the STIR method itself, RRI in general. And thoroughly explained RRI elements and the possibility for the Company to participate in EU funded projects if takes into account the RRI element(s) during the application. The Company found the information interesting enough to participate

SME – 4

Name of SME	Luks L.t.d.
Country	Croatia
Field of Activity of SME	Conceptual design of interior and exterior lighting, Lighting engineering, visualization and design, Consulting, Sale, Assembly, Complete facility execution and Support
Description of SME	LUKS L.t.d. is a family business, for 20 years it has focused on three main business areas: design, sales and complete facilities execution. The mission of SME is to provide customers with complete support in design and implementation of the lighting in their facilities, meeting their desires with maximum respect for the profession, providing a guarantee for all products as well as servicing for a longer period of time and a complete

	after-sales service, as ultimately a successful job will represent a new value for the company
Name of person filling questionnaire	Valentina Milevoj
Position and qualification of person filling questionnaire	Board member
Summary of his/her work in the company	Finance and controlling, business development, leadership and project management
How did you persuade them to join STIR pilot?	We explained the purpose of the project D-STIR, the STIR method itself, RRI in general. And thoroughly explained RRI elements and the possibility for the Company to participate in EU funded projects if takes into account the RRI element(s) during the application. The Company found the information interesting enough to participate

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

I sent a letter with all the relevant and necessary information about STIR pilot. After that we had a meeting in the premises of the companies.

Summarize agenda of the meeting/s

Results before the implementation of STIR method in the high interactive SME, results after the STIR implementation, benefits, problems, achieved progress, the main result of the process, RRI activities.

Summarize reaction and feedback of the low interaction SMEs on STIR method

They found it interesting but there are some concerns about the logistic of the STIR implementation - it is difficult to implement STIR testing in small and medium-sized

enterprises

Are any of the low interaction SMEs interested in implementation of STIR?

They all like the fact that STIR offers new ideas on marketing of the product and communication with the clients but they are skeptical about the time they need to dedicate to Embedded humanist and to the implementation of the method.

Sarajevo Economic Region Development Agency – BiH

EH	Duration of pilot	STIRed person	High/low interaction	Position of STIRed person	Occurrence of STIR interaction	Average duration of STIR interaction
Belma Pašič	February-April 2018	-	High	IT Engineer	1x per week	30-40 minutes

Results of the pre and post study questionnaires:

Question of the interview	Scores during the pre-study interview	Scores during the post-study interview
Q3	**6**	**6**
Q4	**4**	**5**
Q5	**6**	**6**
Q6	**6**	**6**
Q7	**6**	**6**
Q8	**1**	**4**
Q9	**4**	**4**
Q10	**6**	**6**

Q11	**5**	**5**
Q12	**6**	**6**
Q13	**5**	**5**
Q14	**5**	**5**
Q16	**6**	**6**

Overall changes are not significant.

Description of the STIRed SME and qualitative results:

High Interaction SME

Name of SME	**Centre for business development – business accelerator, Asim Bucuk Independent researcher**
Country	Bosnia and Herzegovina
Field of Activity of SME	
Detailed description of activities of SME (production, R&D, etc.) – be detailed as much as possible	**Development of Personal portable electronic device for prolonged delivery of Visible and Near Infrared (NIR) Light, for the purpose of improving the endocrine, regenerative and immune system in humankind for commercial use, after development of prototype**

Describe process, how did you persuade SME to attend STIR pilot

From data base of companies, which is created within other projects and activities. It was necessary to use personal contacts which are made through other projects and activities.

How did you select these particular SMEs for pilot (both high and low interaction) – describe criteria, focus

Creativity, innovational product, willing to participate

Describe overall STIR process:

a) Number of sessions, what let you to decision to have this number of sessions

Once a week, Average 30-40 min, depending on previous work and company eligibility

b) Main topics discussed – be as detailed as possible

Describe what did you talk about + put it into categories such as: economics, sociology, psychology, philosophy, ethics, marketing, project management, time management, strategy, etc. Mostly we discussed on all main categories, but point was on environmental issue, as this point of research was not defined completely.

c) Describe changes done by STIR on personal level

More open and relaxed, more aware on appropriate approach to the potential customers and how is important to explain research in understandable way.

d) Describe changes done by STIR on organization level

More aware on RRI and that is needed to raise awareness on responsibility in research

e) Make summary of results achieved by STIR pilot – be as detailed as possible

Changes in the way of thinking: There are funds which support innovators and innovative ideas, he must not rely on loan or state help (which is on low level for innovations in BiH). He is interested to learn more about EU projects, funds and how to apply. It is important to point to innovators and researches of importance on simple language. This researcher tried prototype on himself and got visible results and he shall use himself as example of device benefits, which is not that usual.

f) What did you choose for RRI Actions based on your pilot? (what do you want to improve in STIRed organization?)

The method is a good reference for future work and applying on EU funds, as it changed the way of their thinking and point out to the company what is responsibility in process of innovations and that include range of aspects.

g) Estimate which of the results achieved by your pilot are transferable to other organizations

More interest in EU funds regarding RRI as most of the companies do not use and don't know about available funds for SMEs and that this is good opportunity and reference for them.

STIR in future – do you think you will implement STIR methodology in future?

The STIR is useful and can be applicable, but needs more practical things (e.g. as activity 5.3.) as most of the companies are not aware of non-financial support.

Do you think that STIR methodology has marketable value?

In the future yes

<u>Description of low interaction SMEs and follow-up work with them:</u>

SME – 1

Name of SME	Farmer.ba
Country	Bosnia and Herzegovina
Field of Activity of SME	online platform for agriculture
Description of SME	Company is established with main aim to promote domestic local agriculture products and create value chain and full service. This is the first platform

	in BiH and include variety of services for all users.
Name of person filling questionnaire	Nermin Nadarević
Position and qualification of person filling questionnaire	Founder and director
Summary of his/her work in the company	All strategic and operational work within scope of business activity
How did you persuade them to join STIR pilot?	Based on previous cooperation

SME – 2

Name of SME	For Five
Country	Bosnia and Herzegovina
Field of Activity of SME	Online advertising
Description of SME	adwords, social networks, programmatic buying, advising, design etc. One of the first companies in BiH working with Google
Name of person filling questionnaire	Vedran Tičić
Position and qualification of person filling questionnaire	Co-founder and owner
Summary of his/her work in the company	Sales, operations, marketing, accounting etc.
How did you persuade them to join STIR pilot?	Personal contact and their interest in further development and participation in projects

SME – 3

Name of SME	A.H.A. Moments
Country	Bosnia and Herzegovina
Field of Activity of SME	marketing and design
Description of SME	Company which offers and promotes full service to a companies: marketing, design, advertising, web, maintaining etc.
Name of person filling questionnaire	Aida Hadžiosmanović
Position and qualification of person filling questionnaire	Owner
Summary of his/her work in the company	All operational work and business leading, main designer
How did you persuade them to join STIR pilot?	Personal contact and their interest in further development and participation in projects

SME – 4

Name of SME	Ustedite.ba
Country	Bosnia and Herzegovina
Field of Activity of SME	online platform for advertising
Description of SME	New and innovative platform with main aim to provide service to customers and to help them save time and money
Name of person filling questionnaire	Merima Pašić
Position and qualification of person filling questionnaire	Owner
Summary of his/her work in the company	All operational work and business leading
How did you persuade them to join	Personal contact and their interest in further

STIR pilot?	development and participation in projects

Meeting with low interaction after the end of STIR pilot in high-interaction SME

Describe how did you organize meeting with low interaction SME (workshop, bilateral, work lunch etc.)

Work Coffee

Summarize agenda of the meeting/s

I started we refreshing on the main points of D-STIR project and pilot actions. Then I presented results of the pilot, which was followed by the discussion and feedback.

Summarize reaction and feedback of the low interaction SMEs on STIR method

SMEs had problems with understanding of concept of RRI and its actual usability at the market. Method should be simplified and mainly be less time consuming and focused on specific development.

Are any of the low interaction SMEs interested in implementation of STIR?

No.