European Commission

Analysis of impact of completed Eurostars-1 projects

Final Report

EUR 2017.3358 EN

Research and Innovation

EUROPEAN COMMISSION

Directorate-General for Research and Innovation
Directorate B — Open Innovation and Open Science
Unit B.3 — SMEs, Financial instruments and State Aid

Contact: Sandro MACCAGLIA

E-mail: sandro.maccaglia*@ec.europa.eu*

RTD-PUBLICATIONS@ec.europa.eu

European Commission
B-1049 Brussels

EUROPEAN COMMISSION

Analysis of impact of completed Eurostars-1 projects

Final Report

Authors

Directorate-General for Research and Innovation
Innovation in SMEs

2017

EUR 2017.3358 EN

EUROPE DIRECT is a service to help you find answers to your questions about the European Union

Freephone number (*):

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you)

LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information.

The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

More information on the European Union is available on the internet (http://europa.eu).

Luxembourg: Publications Office of the European Union, 2017.

PDF ISBN 978-92-79-68054-0 doi:10.2777/632566 KI-02-17-404-EN-N

© European Union, 2017.
Reproduction is authorised provided the source is acknowledged.

Contents

EXECUTIVE SUMMARY 4
Methodology 4
Findings 5
Conclusions and recommendations 7
BACKGROUND OF THE STUDY 8
Policy context 8
Objective and scope of the study 9
Structure of the report 9
METHODOLOGICAL APPROACH 11
Overall approach 11
Desk research 12
Interviews with beneficiaries 13
Results analysis 14
QUALITY ANALYSIS OF AVAILABLE DATA 15
Quality of FiR and MIR questionnaires 15
Quality of Eurostars database 18
Conclusions 22
OVERVIEW OF EUROSTARS-1 PROJECTS 24
Overview of submitted and approved applications 24
Overview of implemented projects 27
IMPACTS OF EUROSTARS-1 PROJECTS 33
Commercial results for Eurostars-1 completed projects 34
In-depth analysis of a sample of Eurostars-1 projects 42
Elements of Eurostars-1 to be improved according to beneficiaries 57
Complementarities with other Horizon 2020 initiatives 59
CONCLUSIONS AND RECOMMENDATIONS 62
ANNEX 1: BIBLIOGRAPHY 65
Legislative acts 65
Reports 65
Studies, articles 66
ANNEX 2 : NUMBER OF PROJECTS AND EU COMMITMENT BY PRIMARY MARKET 68
ANNEX 3: INTERVIEWS WITH MAIN PARTNERS 71
Methodology 71
Response rate 71
Respondent profile 71
Interview guidelines for short interviews 73
ANNEX 4: IN-DEPTH INTERVIEWS WITH MAIN PARTNERS 74
Methodology 74
Response rate 74
Respondent profile 74
Interview guidelines for in-depth interviews 80
ANNEX 5: LIST OF PROJECTS IN-DEPTH ANALYSED THROUGH INTERVIEWS 83
ANNEX 6: LIST OF PROJECTS FOR IMPACT ANALYSIS 86

EXECUTIVE SUMMARY

Research, development and innovation are key priorities within the European Union as well as key policy components of the Europe 2020 strategy. Different European initiatives were created at European level, Horizon 2020 being the biggest EU Research and Innovation programme until now, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.

Through Horizon 2020, the European Union co-funds Eurostars, a joint programme between EUREKA[1] and the European Commission. The other part of funding is supported through the national budgets of 36 Eurostars Participating States and Partner Countries[2].

Eurostars aims to provide financial support to transnational market-oriented research projects initiated and led by R&D-performing small and medium-sized enterprises (SMEs).

The EUREKA Secretariat, based in Brussels, acts as the central support unit for the network and is the dedicated implementation structure for the Eurostars Joint Programme. The Secretariat organises calls for proposals, verifies the eligibility of applications and selects projects for funding. It is also responsible for allocating the EU financial contribution. National funding bodies in the participating countries earmark in their R&D budgets the national contributions to Eurostars and finance their national participants. This funding mechanism is called a 'virtual common pot'. In summary, Eurostars operates on the basis of centralised evaluation, but decentralised funding.

The Eurostars Joint Programme is implemented since 2008, the period until 2013 being referred to as the Eurostars-1, whereas the next one, from 2014 to 2020, being considered Eurostars-2.

EY was contracted by the European Commission to evaluate the performance and to assess the impact of the Eurostars-1 in terms of new products, processes or services introduced into the market two years after the project's completion. The analysis was also aimed at providing concrete recommendations and comments on how to better implement the Eurostars-2.

The scope of the study consisted in the 400 Eurostars-1 ended projects that have been funded during the period 2008 – 2010 (i.e. from cut-off 1 to cut-off 5) and their impacts on the market in terms of turnover generated, company growth, new market development, increase of employees, innovation, sustainability, economic and social impact, complementarities in terms of impacts with other Horizon 2020 initiatives in particular SME Instrument Phase 2 projects and collaborative projects under the Societal Challenges and Leadership in Enabling and Industrial Technologies.

Methodology

Three main tasks have been undertaken in order to achieve the objectives of the study, namely: desk research, interviews and results analysis.

First, **desk research** has been performed and included the following activities:

- *Literature review of policy documents and analysis of the policy papers and other relevant policy literature* mainly aimed to investigate specific aspects of the Eurostars-1 programme such as: addressed needs, objectives, governance, funding mechanism, monitoring setup;
- *Analysis of the contents and of the quality of project reporting questionnaires (Final Report and Market Impact Report) and analysis of existing data concerning Eurostars-1 implemented projects* – mainly data extracted from the Final Reports and Market Impact Reports and included in the Eurostars database[3], in order to identify eventual data gaps, issues of data quality and possible data needs that may affect the results of the impact evaluation.

[1] http://www.EUREKAnetwork.org/about-EUREKA
[2] The countries participating in Eurostars through the EUREKA network of national offices are both intra-EU (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom) and extra-EU (Canada, Iceland, Israel, Norway, South Africa, South Korea, Switzerland, Turkey).
[3] The Eurostars-1 programme database hereafter referred to as Eurostars Database has been created by EUREKA Secretariat and provided to the Research Team to be used under the scope of the current study. It contains both qualitative and quantitative data corresponding either to Eurostars-1 projects or beneficiaries and is presented as an Excel file.

- *Cross-checks of data declared by Eurostars-1 beneficiaries* (in Final Reports, Market Impact Reports and during the interviews performed within the current study) with data extracted from Amadeus[4] database.

Two series of **interviews** were successively conducted in the next phase of the study, namely:

- **Short interviews** with main partners (or, if not available, with other appointed partners) aimed to construct an overview at programme level regarding projects' completion and commercialisation of project results, the following questions being addressed:
  - When did the project end? (Please specify the date.);
  - Have all the initially planned products / services / processes been introduced in the market? (Yes/No. If yes, please specify the date. If no, why?).
- **In-depth interviews** with main partners from a representative sample of 30 projects which allowed the Research Team to collect detailed information regarding: added value of the participation in Eurostars-1, success and hampering factors for achieving the project results, potential areas of improvement.

The last task consisting in the **results analysis** focused first on constructing, at programme level, the profile of submitted and approved applications, implemented projects and corresponding beneficiaries. Descriptive statistics have been created reflecting the following dimensions: distribution by cut-off, size and structure of the consortia, geographical distribution, EU commitment, distribution by technological area addressed by the projects.

Secondly, the assessment of impacts of Eurostars-1 projects was performed based on three types of analyses:

- An analysis at *commercial level* aimed at measuring the effectiveness of the Eurostars-1 projects, in terms of: (1) achievement of the expected results (i.e. developing a product/process/service) and (2) effectiveness in introducing a product/process/service in the market;
- An analysis at *beneficiary level* focused on the impacts deriving from the participation in the programme in terms of company growth, jobs created and profitability of the investment.
- *An in-depth analysis* has been performed on a representative sample of 30 projects in order to investigate topics such as: reasons for applying, previous experience and collaboration with project partners, project results and benefits on the beneficiaries, sustainability of project benefits and results, hampering and fostering factors for introducing the project results in the market.

The study consisted also in identifying complementarities of the Eurostars-1 programme with other Horizon 2020 initiatives through both desk research and interviews.

Findings

The quality analysis of available data first focused on the *design of the Final Report and Market Impact Report* which reflect the projects and beneficiaries' achievements at project completion, respectively, after the introduction of the developed products, processes or services in the market.

The following main findings emerged: (1) some general and/or unclear questions partially useful for monitoring are included in the reports; (2) insufficient information is requested for monitoring innovation created; (3) some requested economic indicators are not related to the impact of the programme; (4) insufficient information is requested on the project return on investment.

The second phase of quality analysis of available data continued with the *assessment of the accuracy of the Eurostars Database*. Some inconsistencies and missing information were identified, such as: (1) information related to the participants' role within the project (leading or partner) and to the situation monitoring (project withdrawn or completed) was in some cases different in various spreadsheets; (2) even if the Final Report form was sent for completion to all Eurostars participants, only 88% of them provided the required data, some of them only partially; (3) impacts on economic indicators, prior and after project completion, can be estimated for 23% of the total number of beneficiaries, as only them submitted complete data both for Final Report and

[4] Amadeus is a database of comparable financial information for around 21 million public and private companies across Europe, developed by Bureau van Dijk Electronic Publishing. It can be used to research individual companies, search for companies with specific profiles and for analysis. For more information, please visit: http://www.bvdinfo.com/en-gb/our-products/company-information/international-products/amadeus

Market Impact Report; (4) the data reported for some economic indicators contain several typos, resulting in severe misunderstandings; (5) the database does not contain information about the number and type of planned products, only related to the launch of products and the code of products is different in each spreadsheet, the status regarding the market launch couldn't be tracked.

Considering the above-listed findings on the accuracy of the Eurostars Database which resulted from an analysis of internal logic of data, the Research Team decided to perform further *checks with the company data available in Amadeus*. Checks on the 'annual turnover' and 'the number of employees' were performed. In more than 50% of cases the deviations were higher than 10%, a lower turnover and a higher number of employees, respectively, being declared by the main partners in the Final Report.

The accuracy of data included in the Eurostars Database regarding (1) the end-date of the projects and (2) the date of market introduction of developed products/processes/services was also checked *based on short interviews* aimed to involve main partners of all analysed projects. Only 16% of the main partners were available to participate in the interviews. In 60% of the cases, differences (from 1 month to 2 years) regarding the end-date of the projects were declared.

Regarding the *submitted and approved applications*, only 27.4% of the submitted ones were approved. The success rate of applications submitted decreased from the 1st to the 5th cut-off. The trend in terms of accepted beneficiaries mirrors the accepted projects. The number of approved beneficiaries was stable only during the first three cut-offs, and then decreased during the 4th and 5th calls. Small (i.e. with 2 or 3 participants) and large consortia (i.e. with a number of participants greater than 5) registered similar success rates.

The involvement of universities and research institutes did not prove to have a positive contribution to the approval of the applications; the highest success rates corresponded to consortia with only R&D SMEs, with a higher number of R&D SMEs, and with main partners located in the UK, France and Sweden. However, in terms of nominal values, France, Spain, Sweden and Germany had the highest number of selected applications; in fact, these were the countries with the highest number of submitted applications. As regards all project partners, the highest success rates were achieved by applications with partners located in Switzerland, France and Sweden, while in nominal values, Germany, France and Spain had the highest number of submitted and selected applications.

Regarding the *implemented projects*, out of the 400 applications approved, only 370 projects have been implemented, the remaining 30 projects being withdrawn. However, the lower number of projects implemented during the 4th and 5th cut-offs is correlated with the success rates registered during the selection process, and not with the withdrawals. The highest number of withdrawals is related to the 2nd cut-off.

Out of the total approved applicants 11% decided to withdraw from the programme; some were related to the 30 withdrawn projects, but also to other implemented projects. The 370 projects were implemented by 1,197 beneficiaries. The size of the consortium varied between only 2 project partners to up to 9 project partners, the majority of the projects having either 2 or 3 partners.

Given the nature of the programme, the highest number of participants was represented by R&D SMEs; however, an important number of universities, research institutes, SMEs and large companies participated in the programme. In particular, in 33% of the cases, the consortia were formed only by R&D SMEs, while in 67% of the cases, other types of institutions were also involved. A high number of main partners were located in France, followed by Sweden, Spain, Germany and the UK. On the other hand, when discussing about all project partners, the hierarchy is dominated by Germany, followed by France, Spain, Sweden and Italy.

Within the analysed cut-offs, EUR 59.8 million were committed from EU funds to the project implementation. Both the total EU commitment and the average EU commitment per project were decreased towards the last cut-offs.

Eurostars projects can address any technological area for any market, but must have a civilian purpose and be aimed at the development of a new product, process or service. Considering the first 5 cut-offs, 86% of the projects addressed three technological areas, namely ICT, Biotech, and Industrial.

The commercial analysis revealed that 88% of the analysed projects developed the planned products/processes/services. Around 50% of them were coordinated by R&D performing SMEs based in France, Spain, Germany, Sweden and the Netherlands. The successful projects cover all the technological areas. However, 73% of them refer to ICT, Industrial and Biotech.

Moreover, 82% of these projects succeeded in introducing the results in the market. The success rate was higher among the projects funded under the first three calls, having smaller consortia including R&D SMEs plus other types of beneficiaries and addressing Environment, ICT and Industrial technological areas.

The analysis at beneficiary level highlighted that SMEs that implemented successful projects in terms of commercialising the project results appear to have higher annual turnover, earnings and number of employees, and a lower annual investment in R&D than the other SMEs. In addition, over the monitoring period, they benefited from a higher growth of the turnover and earnings and they faced a lower increase of the investment in R&D. As a general highlight of a study, the projects for which data are available showed a limited profitability of the investment undertaken.

The in-depth analysis of 30 randomly selected projects indicated no significant differences between beneficiaries with successful and not successful projects in commercialising the projects' results in terms of:

- reasons for applying to Eurostars-1 programme (i.e. access to funding, entering new markets, development of internal capabilities, creation of long-term partnerships);
- previous experience in R&D activities, most of them declaring that are experienced;
- collaboration with project partners, most of them declaring smooth collaboration during the project implementation;
- project benefits, main declared benefits referring to knowledge, network, reputation, competitive position and internationalisation;
- sustainability of project benefits and results, most of them declaring they are still active in the market and involved in R&D activities;
- hampering (i.e. political financial, technical, administrative) and fostering factors (i.e. created partnership, market knowledge, and successful research results) for introducing the project results in the market.

Conclusions and recommendations

The data collection mechanism in place for the first five cut-offs of the Eurostars-1 significantly limits the monitoring and the measurement of the performance and impacts attributable to the Eurostars projects. Moreover, *reliability of data* included in the Final Report and Market Impact Report is limited. In addition, the *submission of Final Report and Market Impact Report and the completeness of data* is not granted as only a part of the beneficiaries submitted completed reports. This might indicate the reporting activity was perceived as optional by some beneficiaries.

Due to the reasons mentioned above, *to measure the impacts* of completed Eurostars project is currently not possible in a comprehensive manner. As a result, this study was based on a sample of 182 projects for which completed information was available from the main beneficiaries. 88% of the analysed projects were successful in developing products/ services/ processes within the project implementation period and 82% of these successful projects succeeded in the commercialisation of results.

Regarding the latter, in terms of impacts of the participation in the Eurostars-1 programme on the SMEs that implemented them, the main conclusion is that apart from the profitability of the investment, identified as limited, the other economic indicators for which data is available cannot be used to assess the direct impacts of the participation in the programme as they refer to the overall economic performance of the beneficiaries.

The study also revealed that the participation in Eurostars-1 programme is perceived by the interviewed beneficiaries as a positive experience, having various types of benefits (i.e. knowledge and network-related). However, the beneficiaries also identified barriers in the application phase (i.e. political, administrative), project implementation (i.e. financial and technical) and commercialisation phase (i.e. demand and consortium-related).

As main *recommendations*, the data collection, selection and monitoring mechanisms should be improved.

BACKGROUND OF THE STUDY

Policy context

Eurostars is a joint programme between EUREKA[5] and the European Commission co-funded from the national budgets of 36 Eurostars Participating States and Partner Countries[6], and by the European Union through Horizon 2020[7].

In July 2008, the European Parliament and the Council adopted a decision[8] providing for EU participation in financing the Eurostars for the period 2008-2013, hereafter referred to as Eurostars-1. Since then, the European Parliament and the Council have adopted a new Decision providing for continued participation in funding the new Eurostars-2 joint programme from 2014 to 2020 (Eurostars-2 Decision)[9]. Eurostars aims to provide financial support to transnational market-oriented research projects initiated and led by R&D-performing small and medium-sized enterprises (SMEs)[10].

More precisely, Eurostars aims to support such R&D performing SMEs by:

- creating an easily accessible and sustainable European R&D support mechanism for them;
- encouraging them to create new economic activities based on R&D results and bring new products, processes and services to the market faster than would otherwise be possible;
- promoting their technological and business development as well as internationalisation.

Eurostars shall contribute to European competitiveness, innovation, employment, economic change, sustainable development and environmental protection, and help to achieve the Lisbon and Barcelona objectives.

Eurostars projects are defined by the following specificities:

- **bottom-up** as the technological areas to be addressed within the projects are selected by the applicants; consequently the national and European funds are being directed at certain innovation areas by the beneficiaries' research potential and interest;
- **collaborative and international** as in any project there should be at least two partners (autonomous legal entities) from two different participating states;
- **SME-oriented** as at least one partner should be an R&D-performing SME;
- **market-oriented** as they must have a maximum duration of three years, and within two years of project completion the product of the research should be ready for launch into the market.

Eurostars shall align and synchronise relevant national research and innovation programmes, and complement existing national and European Union programmes aimed at supporting R&D performing SMEs in their innovation process.

The Eurostars Decision from 2008 limited the EU financial contribution to 'the equivalent of a maximum of one third of the effective contributions of the participating States (Member States and Associated Countries to FP7) within a ceiling of EUR 100 million.

---

[5] EUREKA is a publicly-funded, intergovernmental network founded in 1985, aimed to enhance European competitiveness by fostering innovation-driven entrepreneurship in Europe, between small and large industry, research institutes and universities. For more information please visit: http://www.EUREKAnetwork.org/

[6] The countries participating in Eurostars through the EUREKA network of national offices are both intra-EU (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom) and extra-EU (Canada, Iceland, Israel, Norway, South Africa, South Korea, Switzerland, Turkey).

[7] Horizon 2020 is the biggest EU Research and Innovation programme having the goal to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovation. For more information please visit: https://ec.europa.eu/programmes/horizon2020/

[8] Decision No 743/2008/EC of the European Parliament and of the Council of 9 July 2008 on the Community's participation in a research and development programme undertaken by several Member States aimed at supporting research and development performing small and medium-sized enterprises. (OJ L 201, 30.07.2008, p.58-67): http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:201:0058:0067:EN:PDF

[9] Decision No 553/2014/EU of the European Parliament and of the Council of 15 May 2014 on the participation of the Union in a research and development programme jointly undertaken by several Member States aimed at supporting research and development-performing small and medium-sized enterprises (OJ L 169, 07.06.2014, p. 1-13): http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014D0553&from=EN

[10] These companies should be SMEs within the meaning of the Commission Recommendation 2003/361/EC.

The EUREKA Secretariat[11], based in Brussels, acts as the central support unit for the network and is the dedicated implementation structure for the Joint programme. The Secretariat organises calls for proposals, verifies the eligibility of applications and selects projects for funding. It is also responsible for allocating the EU financial contribution. National funding bodies in the participating countries earmark in their R&D budgets the national contributions to Eurostars and finance their national participants. This funding mechanism is called a 'virtual common pot'. In summary, Eurostars operates on the basis of centralised evaluation, but decentralised funding.

Objective and scope of the study

The main objective of the study is to evaluate the performance and to assess the impact of the Eurostars-1 Joint Programme in terms of new products, processes or services introduced into the market two years after the project's completion. The analysis is also aimed at providing concrete recommendations and any other useful comments on how to better implement the Eurostars-2 programme.

The scope of the study consists in the 400 Eurostars-1 ended projects that have been funded during the period 2008 – 2010 (i.e. from cut-off 1 to cut-off 5) and their impacts on the market in terms of turnover generated, company growth, new market development, increase of employees, innovation, sustainability, economic and social impact, complementarities in terms of impacts with other Horizon 2020 initiatives in particular SME Instrument Phase 2 projects and collaborative projects under the Societal Challenges and Leadership in Enabling and Industrial Technologies.

Structure of the report

The report is comprised of 6 main chapters, each of them being briefly described below:

Background of the study explains the policy context accompanying the implementation of the Eurostars-1 programme, including its aims and specificities. The objective and scope of the study are also presented.

Methodological approach provides details on the overall approach followed in developing the current study, introduces the main tasks that were undertook and their corresponding steps.

Quality analysis of available data includes the assessment of programme documents fundamental to the current study, in order to identify eventual data gaps, issues of data quality and possible data needs that may affect its results.

Overview of Eurostars-1 projects presents descriptive statistics about the projects submitted, approved and implemented under Eurostars-1.

Impacts of Eurostars-1 projects highlights the commercial results of Eurostars implemented projects and their impacts on the beneficiaries in terms of company growth, employment and profitability of the investment.

Conclusions and recommendations summarises the main findings of the study and presents recommendations for improving the implementation of the Eurostars-2 programme.

Detailed information and data supporting the performed analyses are included in the annexes, as follows:

- Annex 1 *Bibliography* – presents the list of consulted documents;
- Annex 2 *Number of implemented projects and EU commitment by primary market* – includes descriptive statistics regarding the number of implemented projects and EU commitment per their primary market;
- Annex 3 *Short interviews with main partners* – contains the methodology used in performing the short interviews, the profile of the interviewees, the response rate and the interview guidelines;
- Annex 4 *In-depth interviews with main partners* – includes the same type of information as Annex 3, however regarding the in-depth interviews and the list of projects analysed in-depth through interviews;

[11] Hereafter referred to as ESE

- Annex 5 *List of projects in-depth analysed through interviews* – includes the list of projects implemented by beneficiaries consulted through in-depth interviews;
- Annex 6 *List of projects for impact analysis* – includes the list of projects considered in the impact analysis presented in Chapter *Impacts of Eurostars-1 projects*.

METHODOLOGICAL APPROACH

Overall approach

Three main tasks have been undertaken in order to achieve the objectives of the study, namely: desk research, interviews and results analysis.

First, **desk research** has been performed in order to identify, collect and structure data to be used for the following phases of the analysis. Therefore, the desk research supported the definition of the questionnaire to be used in conducting the interviews, respectively the selection of the interviewees, and represented the base for results analysis.

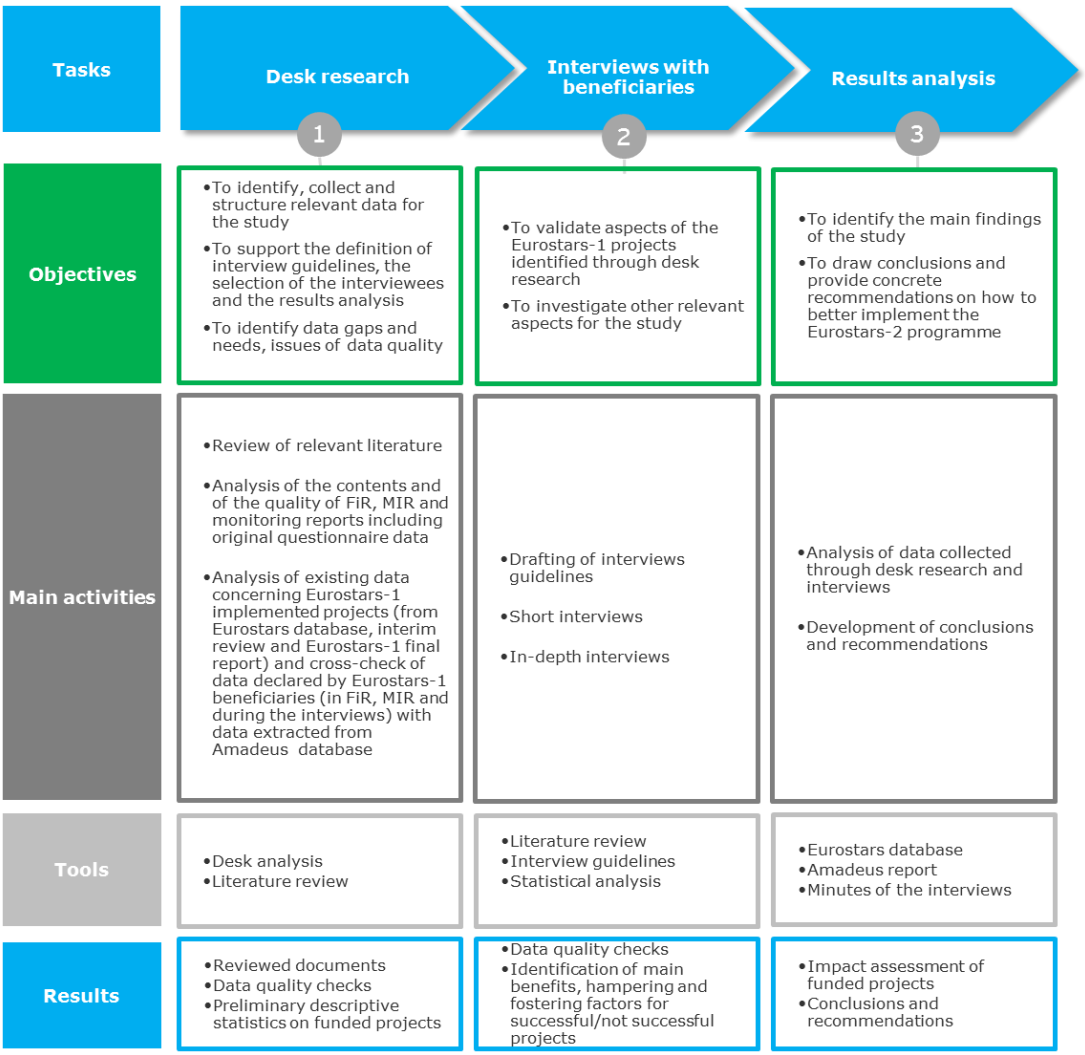
The desk research also contributed to the identification of data gaps and needs, issues of data quality and helped in proposing a suitable strategy to ensure evaluation is carried out to the highest quality standards.

Two series of **interviews** have been conducted in the next phase of the study both for validating aspects of the Eurostars-1 projects identified through desk research and for investigating other relevant ones.

The last phase of the analysis, the **results analysis,** consisted in interpreting and collating the findings of desk research and interviews, drawing conclusions and providing concrete recommendations on how to better implement the Eurostars-2 programme.

An overview of the undertaken tasks, their objectives and used tools is reflected in the picture below.

Figure 1: Overall approach followed in implementing the study



The approaches followed in each of these phases of the analysis are presented in the following sections.

Desk research

The desk research was focused on three main phases of the Eurostars-1 programme: **design**, **implementation** and **monitoring.** Different documents have been subject to desk research in order to gather, organise and analyse existing information and data on Eurostars-1 programme, the following sub-tasks being undertaken:

- Literature review of policy documents and analysis of the policy papers and other relevant policy literature;
- Analysis of the contents and of the quality of project reporting questionnaires (FiR and MIR) and of monitoring reports including original questionnaire data;
- Analysis of existing data concerning Eurostars-1 implemented projects – namely data from Eurostars database[12] (including data extracted from the final reporting questionnaires – **FiR**: Final Report and **MIR**: Market Impact Report), materials from the interim review and Eurostars-1 final report, and cross-check of data declared by Eurostars-1 beneficiaries (in FiR, MIR and during the interviews performed within the current study implementation) with data extracted from Amadeus[13] database.

Please see Chapter

Quality analysis of available data for the results of performed desk research.

Design of the Eurostars-1 programme

Policy documents have been consulted in order to obtain an understanding of the broader context of R&D supporting programmes existing at EU level (e.g. Horizon 2020). The documentary research also included a series of policy papers and publications aimed to investigate specific topics related to the Eurostars-1 programme such as:

- Needs the programme sought to address and objectives;
- Governance and institutional arrangements;
- Funding mechanism;
- Process (phases and corresponding procedures);
- Guidelines for applicants and beneficiaries of the Eurostars-1 programme;
- Monitoring setup and corresponding documents.
- For the complete list of consulted documents, please see ☐.

The analysis of the contents and of the quality of project reporting questionnaires (FiR and MIR) started with identifying their aim, period of submission and beneficiaries required to fill them in. Afterwards, their structure has been mapped. The information requested in each section of the report has been assessed in terms of the contribution the expected answers would have to achieving the aim of the report. Findings have been presented per section of FiR and MIR and areas of improvement have been identified.

The results of this analysis supported the drafting of the questionnaires used in conducting the interviews.

Implementation and monitoring of the Eurostars-1 programme

In terms of programme implementation and monitoring, the desk research focused on the Eurostars database which constituted:

---

[12] The Eurostars-1 programme database hereafter referred to as Eurostars Database has been created by EUREKA Secretariat and provided to the Research Team to be used under the scope of the current study. It contains both qualitative and quantitative data corresponding either to Eurostars-1 projects or benefiaries and is presented as an Excel file.

[13] Amadeus is a database of comparable financial information for around 21 million public and private companies across Europe, developed by Bureau van Dijk Electronic Publishing. It can be used to research individual companies, search for companies with specific profiles and for analysis. For more information, please visit: http://www.bvdinfo.com/en-gb/our-products/company-information/international-products/amadeus

- main reference document containing relevant data and information regarding submitted and approved applications, respectively implemented projects;
- main source for identifying trends and statistics of the Eurostars-1 programme.

Submitted project reporting questionnaires, FiR and MIR, have not been reviewed as they have not been received from ESE. However, data and information provided by beneficiaries in FiR and MIR has been included in the Eurostars database created, curated and provided to the Research Team by ESE. Therefore, the analysis of answers collected through FiR and MIR has been performed on previously processed data and information and not on raw ones.

The Eurostars database proved its usefulness also for identifying the projects to be analysed within the study and the beneficiaries to be consulted through interviews.

Another important role of the desk research was to check the accuracy of the data and information included in the database. The first check was performed within the database by applying different filters to identify potentially incomplete, contradictory or non-reliable data or information. The second check consisted in comparing the data and information existing in the database with the ones collected through the interviews performed within the study. Another check has been performed by extracting financial data from Amadeus database and verifying if it corresponds to the ones presented in the Eurostars database.

The interim[14] and final[15] evaluations of the Eurostars-1 programme have also been consulted for identifying already addressed topics of interest for the current study. Considering the timeframe of these previous analyses, the databases used were significantly different than the one used in this study, including a lower number of projects and data corresponding to projects being in different phases than in the present. However, aspects regarding the accuracy of data have been identified and further investigated or confirmed within the current study.

Interviews with beneficiaries

Two types of interviews have been successively conducted in order to collect data and information from Eurostars-1 beneficiaries, namely:

- The **first type of interviews** (hereafter referred to as ***short interviews***) were aimed to construct an overview at programme level regarding the projects' completion and the introduction in the market of projects' results from a time-related perspective. Beneficiaries of all the Eurostars-1 projects implemented in the first 5 cut-offs have been contacted for a short phone discussion, the following questions being addressed:
  - When did the project end? (Please specify the date.);
  - Have all the initially planned products / services / processes been introduced in the market? (Yes*/No. If yes, please specify the date. If no, why?*).

The discussion with all the above-mentioned Eurostars-1 beneficiaries has been initiated by a representative of the European Commission. They were informed about the Commission's initiative to analyse the impacts of the implemented projects and they were invited to cooperate within the framework of the study by providing information about their experience of implementing Eurostars-1 projects.

Representatives of 370[16] projects have been contacted using the corresponding data included in the Eurostars database, most of them being main partners. As their availability varied, other partners who did not hold coordinating roles within Eurostars-1 projects have been consulted instead.

Written consultations have also been performed, some beneficiaries not being available for a phone discussion.

For more details on the methodology used, profile of interviewees and response rate, please see 0.

[14] https://ec.europa.eu/research/evaluations/pdf/archive/fp7-evidence-base/other_fp7_panel_evaluations/eurostars_programme_interim_evaluation.pdf
[15] http://ec.europa.eu/research/sme-techweb/pdf/ejp_final_report_2014.pdf
[16] 370 instead of 400 projects have been included in the analysis as 30 projects have been withdrawn.

- The **second type of interviews** (hereafter referred to as **in-depth interviews**) were organised in order to assess aspects such as:
  - Main results and added value of the participation in the Eurostars-1 programme;
  - Timeline for introducing new or improved products/processes in the market;
  - Bottlenecks encountered in the introduction of the project results in the market;
  - Areas of improvement for Eurostars-1 programme;
  - Grants or loans received for introducing the project results in the market.

30 projects have been selected and analysed in detail.

The willingness to participate declared by the beneficiaries during the short interviews was one of the criteria used in constructing the sample. Another one consisted in ensuring the involvement of representatives of projects both successful and unsuccessful in introducing the results in the market. For more details on the used methodology, profile of interviewees and response rate, please see 0.

The results of both types of interviews are presented in Chapter *Impacts of Eurostars-1 projects*.

Results analysis

The data and information collected through desk research and interviews allowed both qualitative and quantitative analyses to be performed.

In order to ensure the reliability of the analyses, first, the quality of available data and information has been assessed.

As a second step, an **overview** of Eurostars-1 programme has been realised, and all submitted, approved and implemented projects within the first 5 cut-offs of the Eurostars-1 have been considered in this phase of the analysis. A two-folded approach has been followed, the results being presented at **project** and **beneficiary level** as some financial data was available only at beneficiary level. Statistics capturing the trends on the following topics have been generated:

- Distribution of projects and beneficiaries, with the respective success rates per cut-off;
- Size and type of consortium and success rates;
- Geographical distribution of beneficiaries;
- EU commitment;
- Technological area and primary market.

For the detailed analysis, please see Chapter *Overview of Eurostars-1 projects*.

The general profiles of projects and beneficiaries described above have been completed with analyses targeting the **impacts** observed at both levels. The performed analysis can be found in Chapter *Overview of Eurostars-1 projects*, considering:

- An analysis at **commercial level** aimed at measuring the effectiveness of the Eurostars-1 projects, in terms of:
  - Achievement of the expected results (i.e. developing a product/process/service);
  - Effectiveness in introducing a product/process/service in the market.
- An analysis at **beneficiary level** focused on the impacts deriving from the participation in the programme in terms of:
  - Company growth;
  - Jobs created;
  - Profitability of the investment.
- An in-depth analysis has been performed on a representative sample of 30 projects in order to investigate:
  - Reasons for applying, previous experience and collaboration with project partners;
  - Project results;
  - Project benefits on the beneficiaries;

- Sustainability of project benefits and results;
- Hampering and fostering factors for introducing the project results in the market.

The analysis of the Eurostars-1 programme has been extended by identifying complementarities with other Horizon 2020 initiatives through both desk research and interviews. Finally, conclusions and recommendations on areas of improvement of the Eurostars programme are provided based on previous analyses.

QUALITY ANALYSIS OF AVAILABLE DATA

Our evaluation started with an assessment of the contents and of the quality of project reporting questionnaires and of monitoring reports, including original questionnaire data.

This assessment was aimed at identifying eventual data gaps, issues of data quality and possible data needs that may affect the results of the impact evaluation.

Quality of FiR and MIR questionnaires

Eurostars-1 beneficiaries are requested to report on the progress of the implemented projects, using three different forms sent by the EUREKA Secretariat.

Figure 1: Type of progress reports

Progress report	Frequency
Project Progress Reports (PPR)	Twice per year, during project implementation
Final Impact Reports (FiR)	At the completion of the project
Market Impact Reports (MIR)	Annually, for 3 consecutive years after the successful completion of the project

Source: Eurostars guidelines for FiR and MIR

For the purpose of this study, **we focused our analysis on the FiR and MIR**, which reflect the projects and beneficiaries' achievements at project completion, respectively, after the introduction of the developed products, processes or services on the market.

As a general comment, both questionnaires required the same type of information to all types of beneficiaries no matter the type of organization they represent and no matter their role in the project.

Design of the FiR questionnaire

Final report forms are sent to each of the participants once the EUREKA Secretariat (ESE) has been informed that the project has been completed. The final report is required from all participants of all projects, whether the R&D phase has been successful or unsuccessful.[17]

The final report form collects data on the following aspects:

- **Achievement of the project**: refers to the project evolution with respect to the initial project plan - in particular technological achievements.
- **Use and dissemination**: refers to development and use of intellectual property (i.e. trademark, registered design, patent, or other) as well as the progress towards obtaining it (e.g. research stage, patent applied for or granted).
- **Economic impact**: refers to expected market impact (i.e. market introduction, investments undertaken, investments foreseen, additional turnover generated and additional turnover

[17] Based on the Eurostars guidelines for FiR and MIR, Version 2.0, February 2013, https://www.eurostars-EUREKA.eu/sites/default/files/guidelinesFR_MIR.pdf%2015.pdf

foreseen in 3 years) and to the commercial and employment evolution of the company (e.g. turnover, R&D expenditure, gross earnings, net income, etc.).

- **Project information**: refers to the collaboration between partners, support and management of the project, and administrative problems the project may have faced.

In the figure below, we present our findings and area of improvements related to the design of the FiR questionnaire, in relation to each section**.**

Figure 2: Appropriateness of the FiR questionnaire

Section	Findings
Achievement of the project	**General questions partially useful for monitoring** In the first section, beneficiaries are invited to express their opinion regarding the successfulness of the project implementation. For example, they have to specify if the outcomes expected by them were achieved or not (question 1.2) and if the overall technological achievements were excellent or poor (question 1.4). These questions are necessary for understanding the perceived usefulness of the programme. However, additional questions are needed for a better monitoring of project achievements. For example it would be necessary to have information about all initially planned products (which should be monitored using unique IDs).
Use and dissemination	**Insufficient information requested for monitoring innovation created (e.g. patents)** In the second section, beneficiaries are required to provide information related to the type of patents obtained. However, in case the beneficiaries developed multiple products, they are not required to correlate the patent with the developed products (which should be monitored using unique IDs).
Economic impact	**Requested economic indicators not related to the impact of the programme** Beneficiaries are requested to declare a variety of economic data related to the overall performance of the company (e.g. gross earnings, turnover, balance sheet, investments in R&D, number of FTEs, etc.). However, the perceived contribution of the Eurostars project is declared only for turnover. As such, the other indicators cannot be used in the monitoring and evaluation of the Eurostars programme – they can be influenced by different factors. **Insufficient information requested on project return on investment** Beneficiaries are requested to provide information on the values of "*investment undertaken and foreseen for market introduction*" and "*additional turnover generated or foreseen due to market introduction*". However, no further information is requested related to types of investments undertaken or related to the computation methodology for the additional turnover generated by the developed product (e.g. selling the patents / the products, etc.).
Project information	**Insufficient questions related to the disbursement of EU funds** Beneficiaries are required to provide information on the total cost of the project, detailing public and private funding. However, the questionnaire does not envisage a rigorous monitoring of approved and consumed EU funds.

Design of the MIR questionnaire

Market impact forms are sent to each participant at yearly intervals beginning one year after the Final Report and finishing 2 years later. The MIR focuses on the commercialisation of the R&D results which were described in the final report, including the commercialisation strategy adopted by the consortium and the results achieved by each participating organisation.[18]

The market impact form requires similar data as the final report form, but is issued about one year after the delivery of the final report form.

- Marketing phase
  - **Commercialisation plan**: refers to the progress made in the process of commercialising the product / process / service developed during participation in the Eurostars project.
  - **Project results**: refers to investments and turnover generated specifically from the participation in the Eurostars project (i.e. market introduction, investments undertaken, investments foreseen, additional turnover generated and additional turnover foreseen in 3 years).
  - **Cooperation between partners**: capture how the cooperation between project participants changed after completing the Eurostars R&D project (e.g. no cooperation, joint activities, joint venture).
  - **Intellectual Property Rights (IPR)**: refers to development and use of intellectual property (i.e. trademark, registered design, patent, or other) as well as the progress towards obtaining it (e.g. research stage, patent applied for, or granted).
- Commercial and economic impact
  - **Commercial and economic impact**: refers to the commercial and employment evolution of the company (e.g. turnover, R&D expenditure, gross earnings, net income, etc.)

In the figure below, we present our findings and areas of improvement related to the design of the FIR questionnaire, in relation to each section.

Figure 3: Appropriateness of the MIR questionnaire

Section	Findings
Commercialization plan	**Unclear questions related to market introduction** Beneficiaries are requested to declare under the same question the observed or expected year that the product/service/process/spinoff was or will be introduced to market. When the year of market introduction coincides with the year of MIR submission, we cannot know if the beneficiary refers to "observed" (i.e. the products was already introduced on the market) or "expected" (i.e. the product is expected to be introduced on the market).
Project results	**Insufficient information requested on project return on investment** Beneficiaries are requested to provide information on the values of "investment undertaken and foreseen for market introduction" and "additional turnover generated or foreseen due to market introduction". However, no further information is requested related to types of investments undertaken or related to the computation methodology for the additional turnover generated by the developed product (e.g. selling the patents / the products, etc.).
Cooperation between partners	**Related question is clear and relevant**
Intellectual Property Rights	**Insufficient information requested for patents**

[18] Based on the Eurostars guidelines for FIR and MIR, Version 2.0, February 2013, https://www.eurostars-EUREKA.eu/sites/default/files/guidelinesFR_MIR.pdf%2015.pdf

	In the second section, beneficiaries are required to provide information related to the type of patents obtained. However, in case the beneficiaries developed multiple products, they are not required to correlate the patent with the developed products (which should be monitored using unique IDs).
Commercial and economic impact	**Unnecessary questions related to economic indicators** Beneficiaries are requested to declare a high amount of economic data related to the overall performance of the company (e.g. gross earnings, turnover, balance sheet, investments in R&D, number of FTEs, etc.). However, the perceived contribution of the Eurostars project is declared only for turnover and FTEs. As such, the other indicators cannot be used in the monitoring and evaluation of the Eurostars programme – they can be influenced by different factors.

Quality of Eurostars database

The EUREKA Secretariat provided the Research Team with the Eurostars Database, containing information related to:

- **All participants**: information for all applicants - approved and not approved (e.g. Name and ID of the applicant, Name and ID of the project, etc.)
- **Approved participants**: information for approved applicants (e.g. Name and ID of the approved applicant, Name and ID of the project, EU commitment, Monitoring status etc.)
- **Project Data**: consolidated information at project level (e.g. Name and ID of the project, Tech Area, Primary Market, Start and End date, etc.)
- **Final Reports**: information related to project achievements (e.g. developed products / processes / services) and economic progress of the company (e.g. gross earnings, turnover, FTEs, etc.)
- **Final Reports Commercial:** information related to expected market introduction (e.g. estimated date, estimated investments and returns, etc.)
- **Market Reports**: information related to economic progress of the company (e.g. gross earnings, turnover, FTEs, etc.)
- **Market reports Commercial**: information related to market introduction (e.g. date, investments, returns, etc.)

The Final and Market reports are based on the data received from Eurostars beneficiaries, using FIR and MIR forms, which were then "*cleaned*" by the EUREKA Secretariat. More precisely, we were provided with the first version of the Eurostars database, in Excel format, on 17th of October 2016, followed by two updated versions on 16th of November and 19th of December 2016.

Accuracy of data based on desk research

In some cases, the **Eurostars database proved to contain** missing or inconsistent information and typo errors, resulting in additional work needed for data cleaning. The main problems encountered, at the level of each spreadsheet, are summarised in the figure below.

Figure 4: Accuracy of the Eurostars database

Spreadsheet	Findings
All participants	**Inconsistent information** The information related to the role of the participant within the project (leading or partner) was not always consistent with data from other spreadsheets.
Approved participants	**Inconsistent information** The information related to situation monitoring (project withdrawn or completed) was not consistent with data from other spreadsheets.

Project Data	**Incorrect information** The project status (project withdrawn or completed) was not updated according to the new information provided for approved participants (i.e. for 30 projects the status was not updated as "withdrawn").
Final Report (FIR)	**Missing information** The final report form was sent for completion to all Eurostars participants; however, only 88% of them provided the required data, out of which some participants completed the report only partially. **Misleading information** The database contains withdrawn projects, without mentioning their status. **Incorrect information** Economic indicators contain several typos, resulting in severe misunderstandings (e.g. market introduction of the products before the start-date of the project). **Incorrect information** Some economic data are declared in million Euros instead of Euros, resulting in incorrect aggregate data.
Market Report (MIR)	**Missing information** The market report form was sent for completion to 1,048 Eurostars participants, out of the total 1,197 participants; however, based on ESE computation, only 53% of them provided the required data, at least for one year (n.b. based on our computation, only 47%), out of which some participants completed the report only in the first year and only partially. This means that impacts on economic indicators, prior and after project completion, can be estimated for 280 participants, who submitted complete data both for FIR and MIR (that is 23% of the total population). Out of this 280 participants, 148 are main partners. **Misleading information** The database contains withdrawn projects, without mentioning their status. Incorrect information: Economic indicators contain different typos, resulting in severe misunderstandings (e.g. market introduction of the products before the start-date of the project). **Incorrect information** Some economic data are declared in million Euros instead of Euros, resulting in incorrect aggregate data. **Missing information** The database does not contain information about the number and type of planned products, only related to the launch of products. **Missing information** The code of products is different in each database and the status regarding the market launch cannot be tracked.

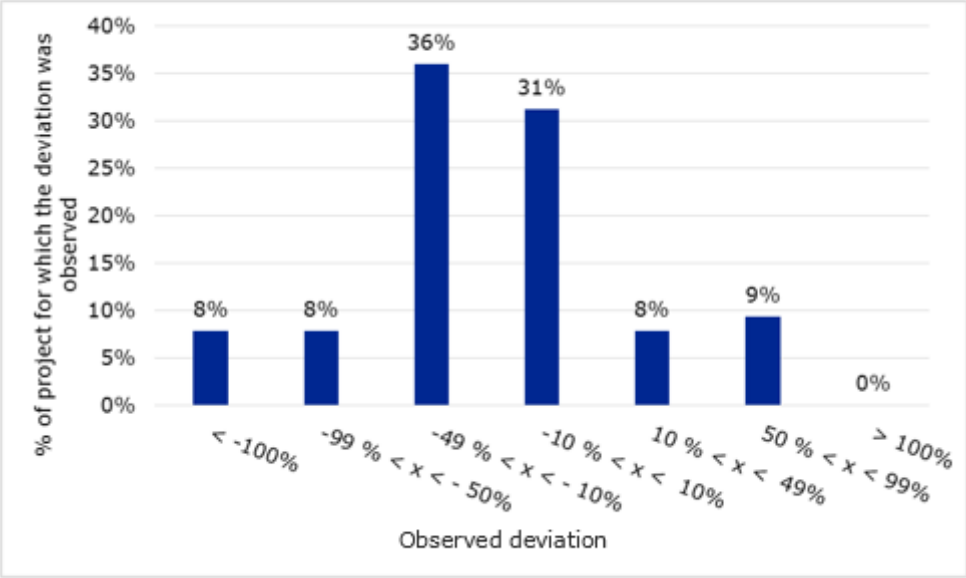
Accuracy of data based on Amadeus review

Considering the findings above on the accuracy of the Eurostars database which resulted from an analysis of internal logic of data, the Research Team decided to perform further investigations.

More precisely, we have randomly selected 120 projects, from all cut-offs, and compared the economic indicators declared by main partners in the final reports (i.e. Eurostars database) with the company data available in Amadeus (i.e. database of Bureau van Dijk).

For the economic indicator "**Annual Turnover**", we were able to perform the verification for 64 main partners, for which data were available in both databases and for the same years. **In 69% of cases, the deviation was higher than 10%** (see **Error! Reference source not found.**); most ain partners declared in the final report a turnover lower than the one declared in Amadeus database.

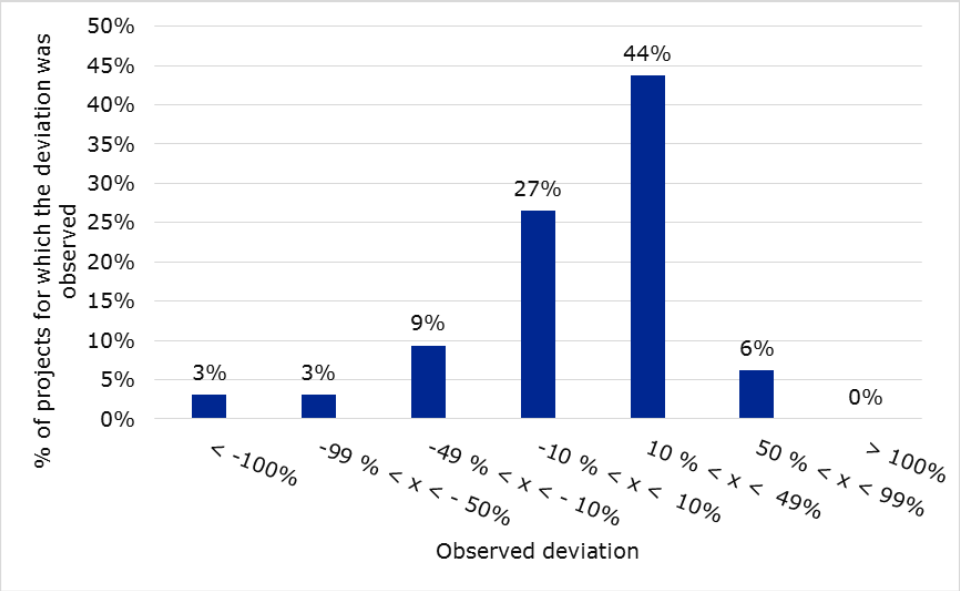
Figure 5: Observed deviations between FIR and Amadeus database (Turnover)



Source: Eurostars and Amadeus databases

For the economic indicator "**Number of employees**", we were able to perform the verification for 59 main partners, for which data were available in both databases and for the same years. **In 63% of cases the deviation was higher than 10%** (see Figure 6); most main partners declared in the final report the number of employees higher than the one declared in Amadeus database.

Figure 6: Observed deviations between FIR and Amadeus database (No. Employees)



Source: Eurostars and Amadeus databases

As pointed out in Chapter *Quality analysis of available data*, these deviations may be due to, among others, typo mistakes, wrong measurement units (e.g. declaring the turnover in million EUR instead of EUR) or even a misunderstanding of the questions included in the forms (e.g. the year of reference).

Accuracy of data based on short interviews with beneficiaries

The short interviews were used to **validate or update the information included in the Eurostars database**, with regards to (1) end-date of the Eurostars projects and (2) date of market introduction of developed products / processes / services.

For this purpose, we have contacted by email and phone all main partners of the 370 completed projects, using the contact details provided by EUREKA Secretariat. As indicated in the figure

below, **only 57 main partners were available to answer to the two question survey,** representing 16% of the total population.

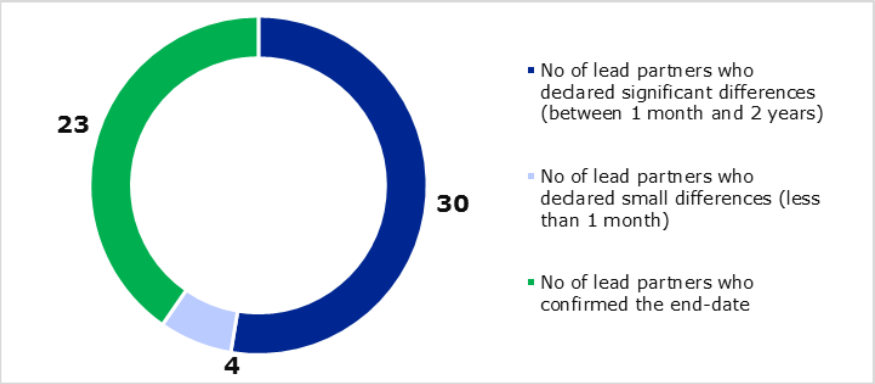
Figure 7: Availability of respondents (representative of main partners)

Indicator	Value	%
No. of main partners who provided information by phone	49	13%
No. of main partners who provided information by mail	8	3%
No. of main partners for whom the contacts were not correct	57	15%
No. of main partners who were not available during the field work and/or were not willing to participate	126	34%
No. of main partners who were not reachable	130	35%
Total	**370**	**100%**

Source: Short Interviews (2016)

Based on the answers received during the short interviews, **Eurostars Database contains a high number of errors with regards to the end-date of the projects**. More precisely, 60% of main partners declared differences from 1 month to 2 years between the information included in the Eurostars Database and what happened in reality (see Figure 8).

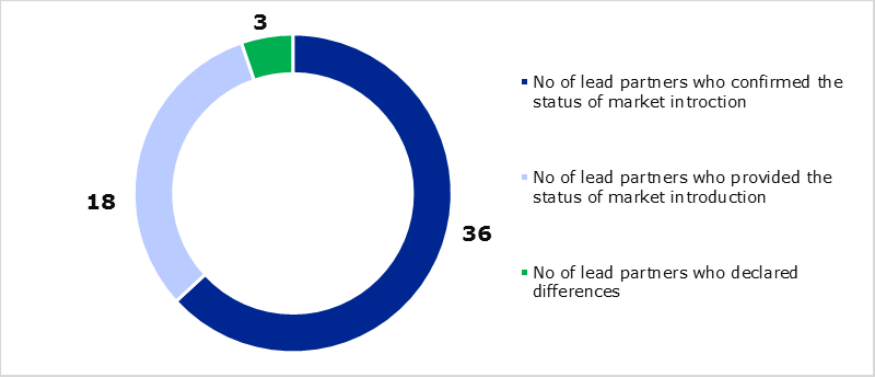
Figure 8: Accuracy of Eurostars Database with regards to end-date of the projects



Source: Short Interviews (2016)

Moreover, in 40% of the cases, the **Eurostars Database did not include information on the status of market introduction, or it contained wrong information**. In particular, for 3 projects, the products appeared as being introduced on the market in the Eurostars Database, while the main partner declared the opposite (see Figure 9). There were also cases in which the products were launched, but the Eurostars Database did not include information on them (i.e. this was the case for 13 projects, out of the total 18 projects for which the Eurostars Database did not include information).

Figure 9: Accuracy of Eurostars Database with regards to market introduction



Source: Short Interviews (2016)

Conclusions

We have assessed the logical construction of questions within the FIR and MIR questionnaires and related Guidelines. The following conclusions emerged:

- **FIR and MIR forms are not able to capture all impacts attributable to the Eurostars projects.** Beneficiaries are requested to declare a high amount of economic data related to the overall performance of the company (e.g. gross earnings, turnover, balance sheet, investments in R&D, number of FTEs), without mentioning the perceived contribution of the Eurostars project towards them.
- **FIR form does not capture the project achievements with respect to the initial plan**. Beneficiaries are invited to express their opinion regarding the successfulness of project implementation. However, the questionnaire does not envisage a rigorous monitoring of all planned products / processes / services and the degree of achievement.
- **MIR form does not capture the project status in terms of market introduction.** Beneficiaries are requested to declare under the same question the observed or expected year that the product/service/process/spinoff was or will be introduced to market. When the year of market introduction coincides with the year of MIR submission, we cannot know if it refers to "observed" or "expected".

Moreover, we have analysed the Eurostars Database from the point of view of completeness and accuracy of the available information. The following conclusions emerged.

- **The Eurostars database does not reflect the results achieved for all projects.** Considering that no corrective measures are in place for beneficiaries who do not submit the final and market reports, a high number of main partners decided not to submit the requested information. Therefore, progress monitoring is not possible for all projects.
- **The Eurostars database contains various inconsistencies and errors.** The project level information was not always updated based on last monitoring status and the economic indicators contain typo errors, resulting in the distortion of financial data. Therefore, the information provided in the database is not always reliable for project details.
- **The Eurostars database contains information that could not be validated with information included in Amadeus.** In 70% of the cases, we found deviations higher than 10% for the "*Turnover*" and for the "*Number of Employees*" declared by main partners in the FIR forms, compared to the data available in Amadeus for the same years. Therefore, the information provided in the database is not always reliable for economic indicators.
- **The Eurostars database contains information that could not be validated by the main partners during the short interviews.** In many cases, the main partners declared differences at the level of project end-date or market introduction, between what was in the Eurostars database and what happened in reality. Therefore, the information provided in the database is not always reliable for declared impacts.

For the purpose of this study, the Research Team has undergone a "data-cleanness" process. However, this was possible only in cases where the correct figures were obvious from the internal logic of the data and for a sample of beneficiaries for which we performed extensive search, based on Amadeus database and short and in-depth interviews with main partners.

Even after the "data-cleanness" efforts, the **deficiencies in the completeness and accuracy of data retrieved from the Eurostars database significantly reduce the usefulness of the collected information** and limit its use for evaluation purposes and impact assessment. In particular, for the analysis of economic impacts, we are only able to retrieve complete data for 280 participants out of 1,197.

OVERVIEW OF EUROSTARS-1 PROJECTS

The following paragraphs present the main descriptive statistics about the Eurostars-1 projects that have been submitted, approved and implemented[19]. All data has been provided by the EUREKA Secretariat.

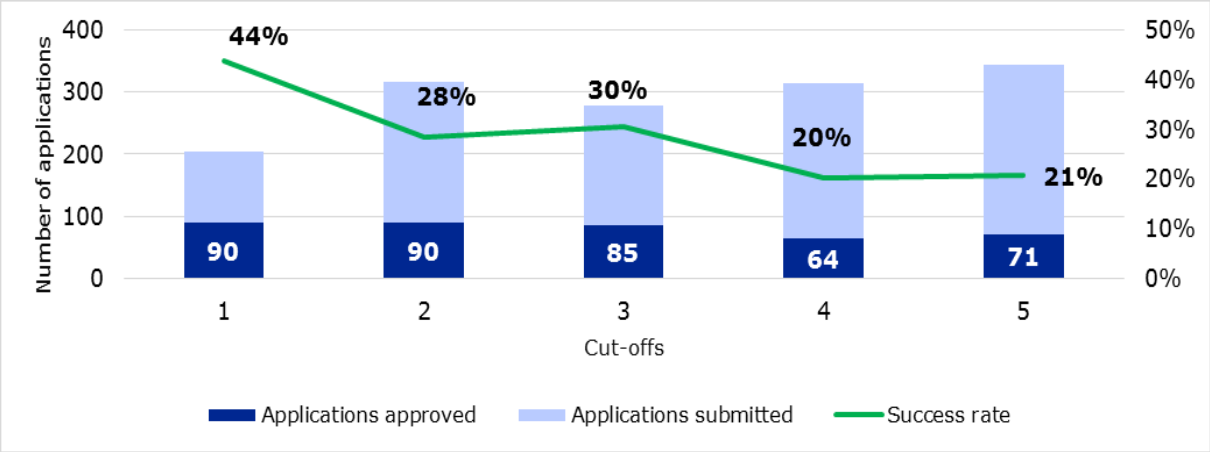
Overview of submitted and approved applications

For the first 5 cut-offs of the Eurostars-1 programme, **1,458 applications have been submitted** for funding (involving 4,911 beneficiaries), out of which **400 have been approved** (involving 1,348 beneficiaries) which results a success rate of 27.4%.

Distribution of projects and success rates by cut-off

The success rate of applications submitted decreased from 44% for the 1st cut-off to 21% for the 5th cut-off (see Figure 10). The number of approved beneficiaries was stable only during the first three cut-offs, and then decreased during the 4th and 5th calls. This might be related to the availability of national public funds. Based on the first interim report of the programme, "*some countries have experienced difficulty funding all of the projects that met the quality threshold*". We can also notice that the number of applications increased from 205 during the 1st cut-off to 343 during the 5th cut-off.

Figure 10: Distribution of projects and success rates by cut-off



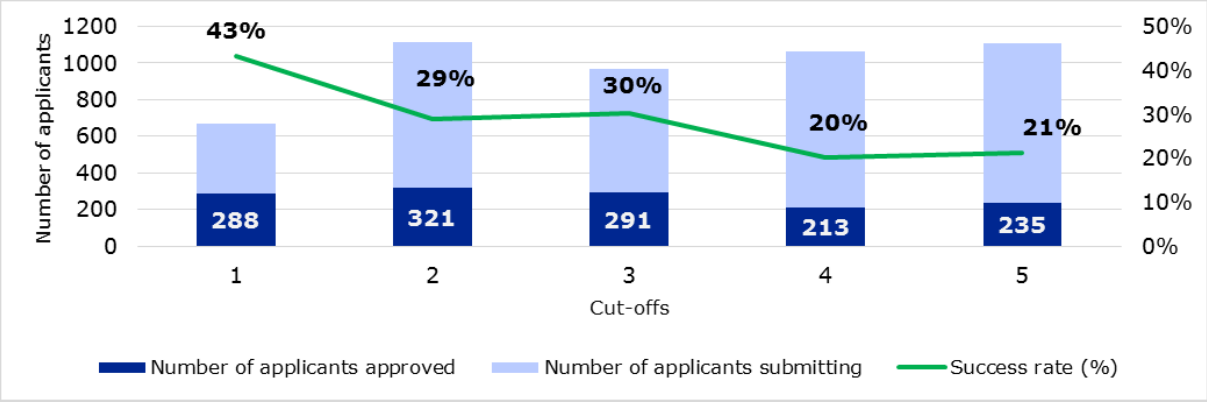
Source: Eurostars Database (2016)

Distribution of beneficiaries and success rates by cut-off

The trend in terms of accepted beneficiaries mirrors, of course, the accepted projects. Out of the 5,911 applicants, 1,348 have been approved for project implementation, that means an average success rate of 22.8% over the 5 cut-offs considered (see Figure 11).

[19] A distinction was made between approved and implemented projects, as 30 projects were withdrawn after the selection phase (i.e. approved and not implemented).

Figure 11: Distribution of beneficiaries and success rates by cut-off

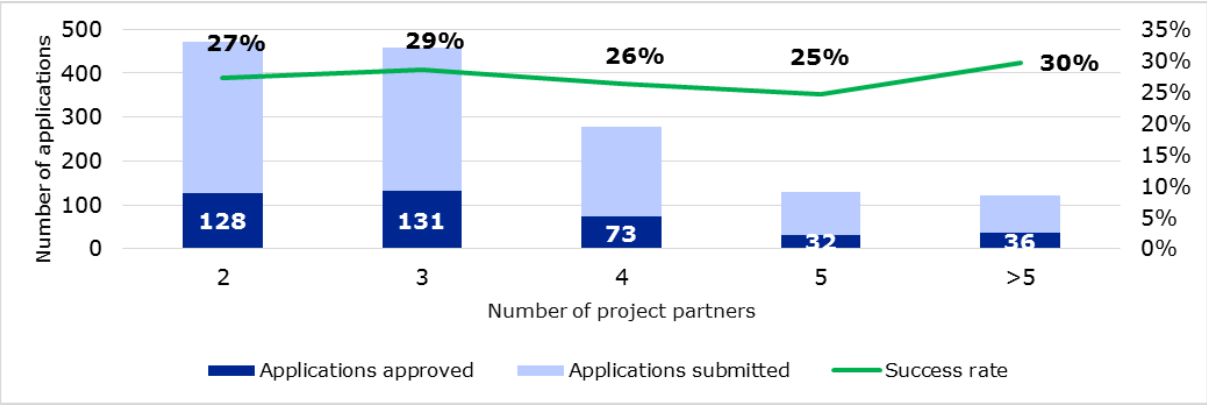


Source: Eurostars Database (2016)

Size and type of partnership and success rates

Both small (i.e. with 2 or 3 participants) and large consortia (i.e. with a number of participants greater than 5) registered a high success rate equal to 27%, 29% and 30% respectively (see Figure 12).

Figure 12 : Size of partnership within consortia and success rate



Source: Eurostars Database (2016)

The involvement of universities and research institutes did not prove to have a positive contribution to the approval of the application; consortia with only R&D SMEs[20] as participants registered a higher success rate (29%) than the average (27%) (see Figure 13).

Figure 13: Type of partnership within consortia and success rate

Type of partnership within consortia	Number of applications submitted	Number of applications approved	Success rate (%)
Only R&D SME	435	128	29%
R&D SME + other	1023	272	27%
Total	**1458**	**400**	**27%**

[20] To qualify as an R&D-performing SME, an organisation must first comply with the EC definition of an SME. In addition, it must also meet the thresholds for dedicated R&D FTEs or turnover set by EUREKA. Research and development performing SME' means an SME which meets at least one of the following conditions:
(a) reinvests at least 10 % of its turnover to research and development activities;
(b) dedicates at least 10 % of its full-time equivalents to research and development activities;
(c) has at least five full-time equivalents (for SME with no more than 100 full-time equivalents) for research and development activities; or
(d) has 10 full-time equivalents (for SME with over 100 full-time equivalents) for research and development activities..

Source: Eurostars Database (2016)

On the other hand, the applications with higher number of R&D SMEs partners had a higher success rate (see Figure 14).

Figure 14: Number of R&D SMEs within consortia and success rate

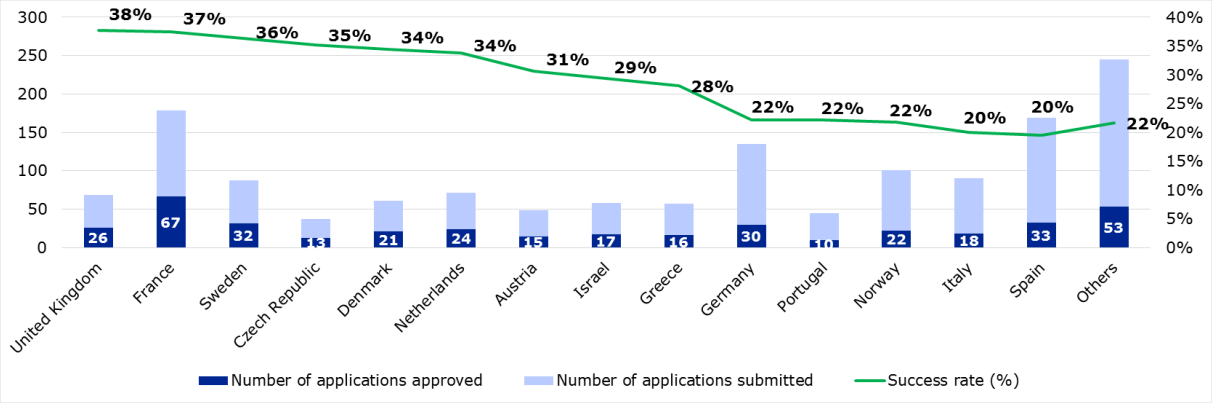
Number of R&D SMEs within consortia	Number of applications submitted	Number of applications approved	Success rate (%)
1	369	86	23%
2	670	195	29%
3	286	79	28%
4	96	26	27%
5	23	7	30%
>5	14	7	50%
Total	**1458**	**400**	**28%**

Source: Eurostars Database (2016)

Geographical distribution of beneficiaries (submitted & approved)

The highest success rates were achieved by applications with main partners located in the UK, France and Sweden. However, in terms of nominal values, France, Spain, Sweden and Germany had the highest number of selected applications (see Figure 15); in fact, these were the countries with the highest number of submitted applications.

Figure 15: Country of establishment of the main partners and success rates[21]

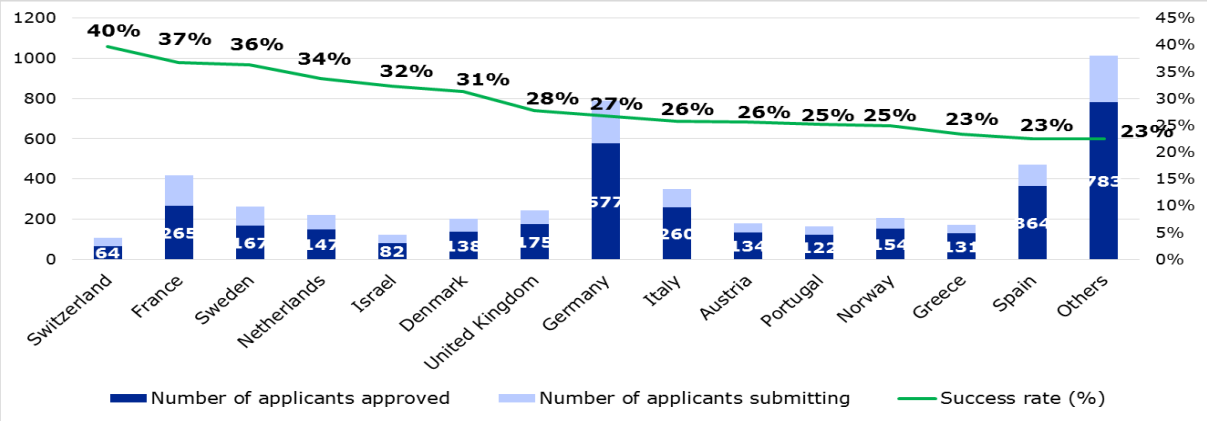


Source: Eurostars Database (2016)

As regards all project partners, we can notice that the highest success rates were achieved by applications with partners located in Switzerland, France and Sweden, while in nominal values, Germany, France and Spain had the highest number of submitted and selected applications (see Figure 16).

[21] For 3 projects, the main partners could not be retrieved from the Eurostars-1 database.

Figure 16: Country of establishment of all partners and success rates



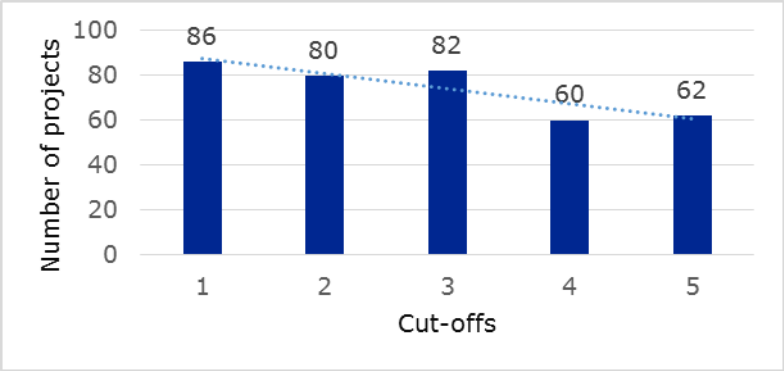
Source: Eurostars Database (2016)

Overview of implemented projects

Distribution of projects by cut-off (implemented)

Out of the 400 applications approved, only **370 projects have been implemented**, the remaining 30 applications being withdrawn by the beneficiaries (see Figure 17).

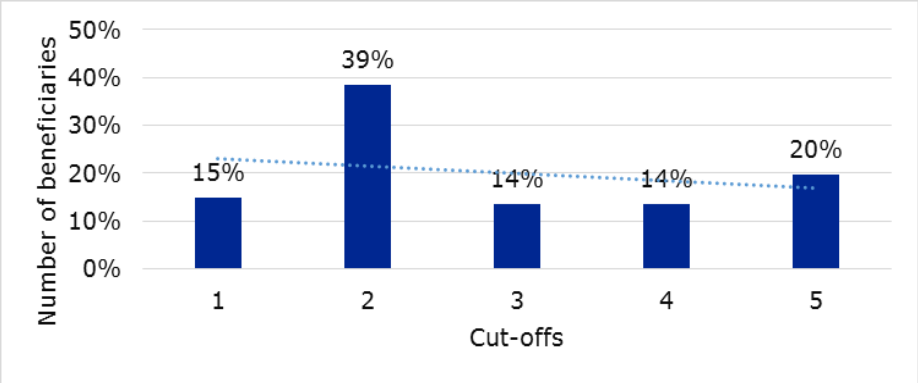
Figure 17: Distribution of implemented projects by cut-off



Source: Eurostars Database (2016)

However, the lower number of projects implemented during the 4th and 5th cut-offs is correlated with the success rates registered during the selection process, and not with the withdrawals. The highest number of withdrawals (39%) is related to the second cut-off (see Figure 18).

Figure 18: Withdrawn beneficiaries by cut-off



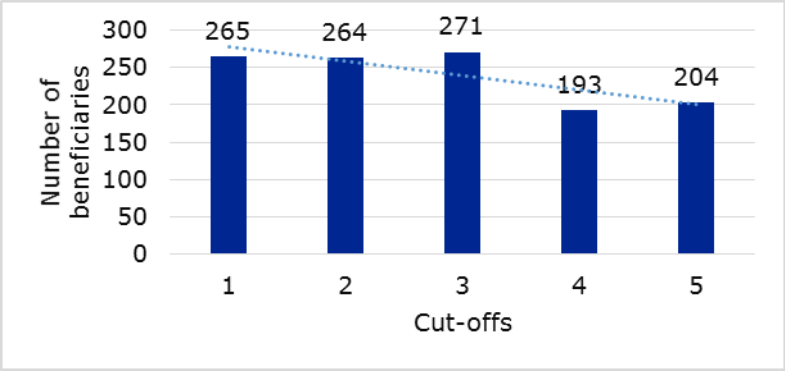
Source: Eurostars Database (2016)

Distribution of beneficiaries by cut-off (implemented projects)

The **370 projects were implemented** by **1,197 beneficiaries** (see Figure 19). It is worth mentioning that a high number of applicants (i.e. in total, 151 out of the 1,348 approved

applicants, representing **11% of the total approved applicants**) **decided to withdraw** from the programme; some were related to the 30 withdrawn projects, but also to other implemented projects.

Figure 19: Distribution of beneficiaries by cut-off

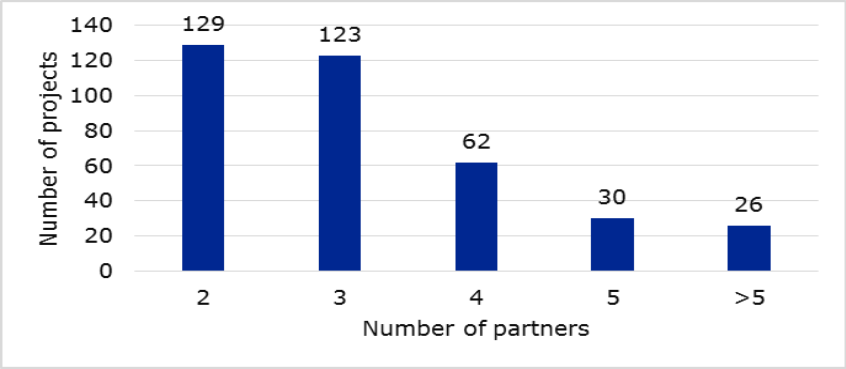


Source: Eurostars Database (2016)

Size and structure of the consortium (implemented)

The size of the consortium varied between only 2 project partners to up to 9 project partners, the median being situated at **3 project partners** (see Figure 20). Moreover, it could be noticed that the majority of projects (252 out of 370) had either 2 or 3 partners.

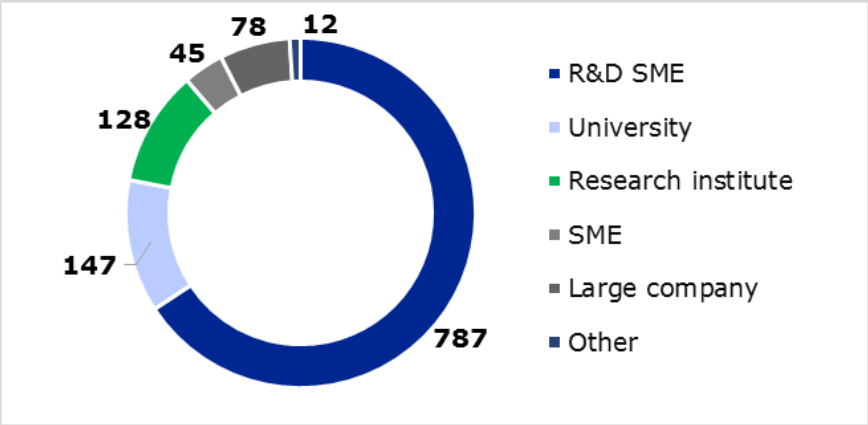
Figure 20 : Size of partnership within consortia



Source: Eurostars Database (2016)

Given the nature of the programme, **the highest number of participants was represented by R&D SMEs** (i.e. in total 787); however, we also notice an important number of universities, research institutes, SMEs and large companies (i.e. in total 400).

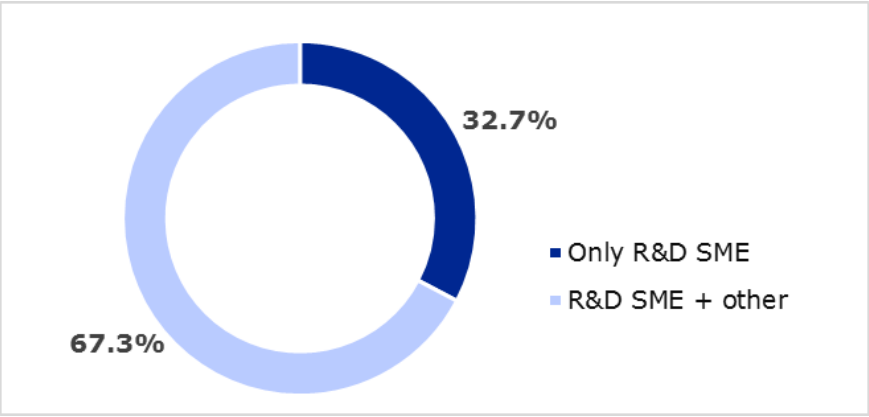
Figure 21: Type of institutions within consortia



Source: Eurostars Database (2016)

In particular, in 33% of the cases, the consortia were formed only by R&D SMEs, while in 67% of the cases, other types of institutions were also involved (see Figure 22).

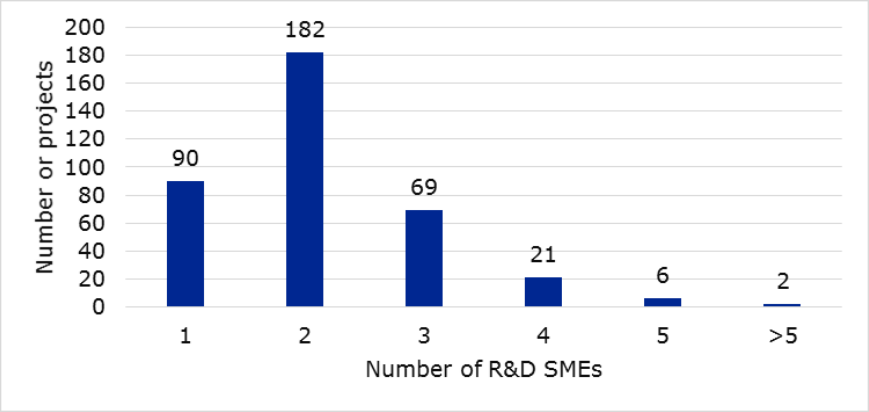
Figure 22: Type of partnership within consortia



Source: Eurostars Database (2016)

On average, **2 R&D SMEs participated within a consortium**; however, there were also projects with more than 5 R&D SMEs (see Figure 23).

Figure 23: Number of R&D SMEs within consortia

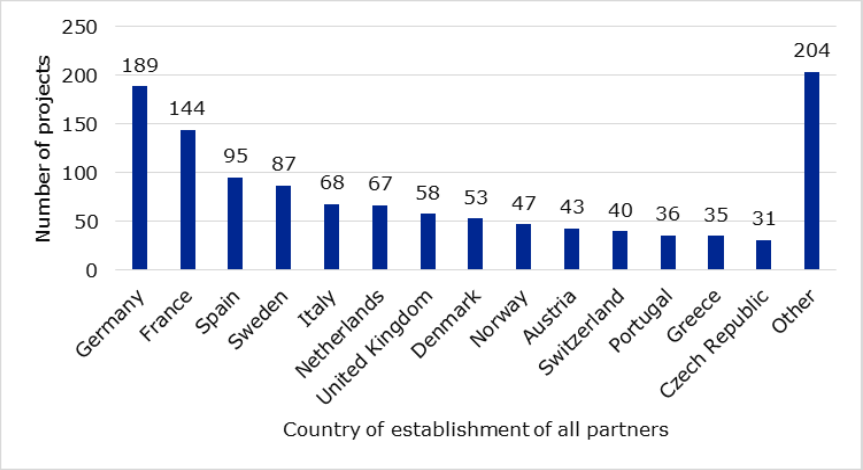


Source: Eurostars Database (2016)

Geographical distribution of beneficiaries (implemented)

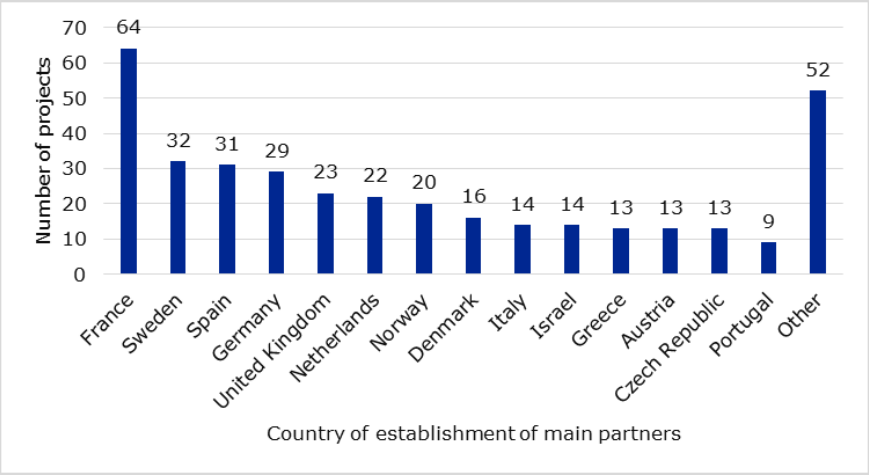
A high number of **main partners were located in France**, followed by Sweden, Spain, Germany and the UK (see Figure 24). On the other hand, when discussing about all project partners, the hierarchy is dominated by Germany, followed by France, Spain, Sweden and Italy (see Figure 25). As can be seen in Chapter *Overview of Eurostars-1 projects*, this can be linked with the higher number of applications submitted.

Figure 24: Country of establishment of the main partners



Source: Eurostars Database (2016)

Figure 25: Country of establishment of all partners

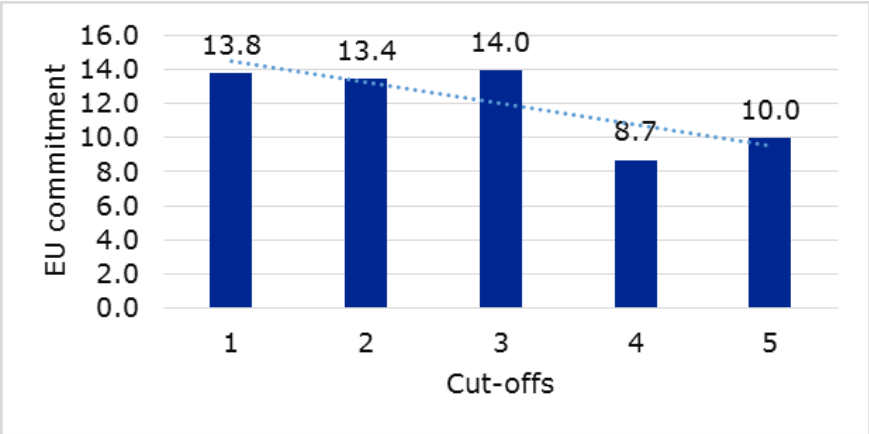


Source: Eurostars Database (2016)

EU commitment (implemented)

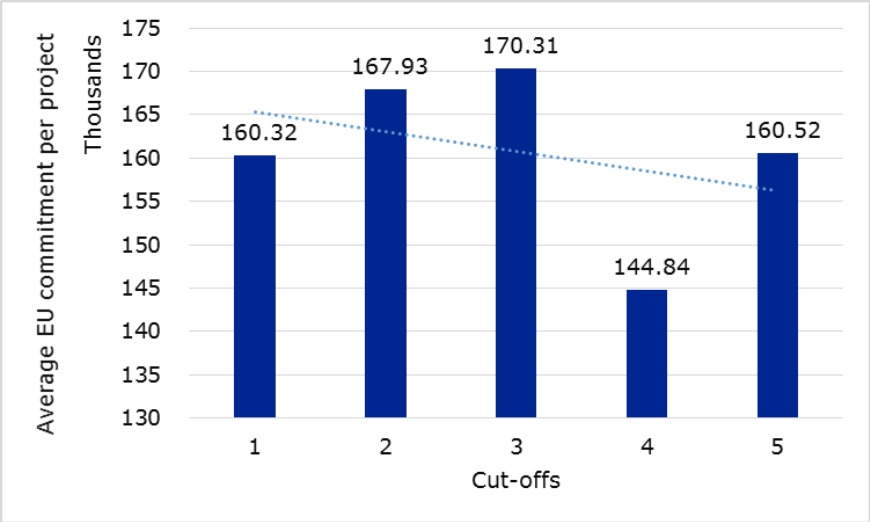
Within the analysed cut-offs, **EUR 59.8 million** were committed from EU funds to the project implementation. Both the total EU commitment and the average EU commitment per project were decreased towards the last cut-offs (see Figure 26 and Figure 27), when, in addition, a lower number of applications were approved.

Figure 26: EU commitment by cut-offs (€ million)



Source: Eurostars Database (2016)

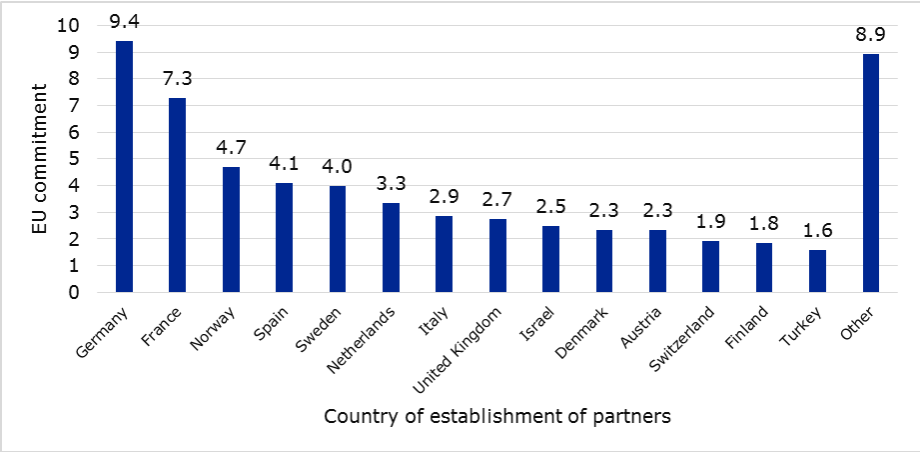
Figure 27: Average EU commitment per project (€ thousands)



Source: Eurostars Database (2016)

The highest amounts were directed to Germany, France, Norway, Spain and Sweden, mirroring to a large extent the number of projects implemented in these countries.

Figure 28: EU commitment by country (€ million)



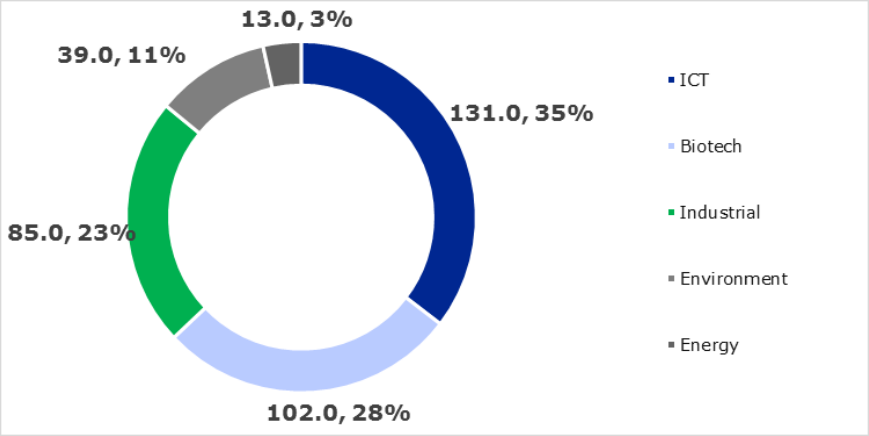
Source: Eurostars Database (2016)

Technological area and primary market (implemented)

Eurostars projects can address any technological area for any market, but must have a civilian purpose and be aimed at the development of a new product, process or service.

Considering the first 5 cut-offs, 86% of the projects addressed three technological areas, namely ICT, Biotech, and Industrial (see Figure 29).

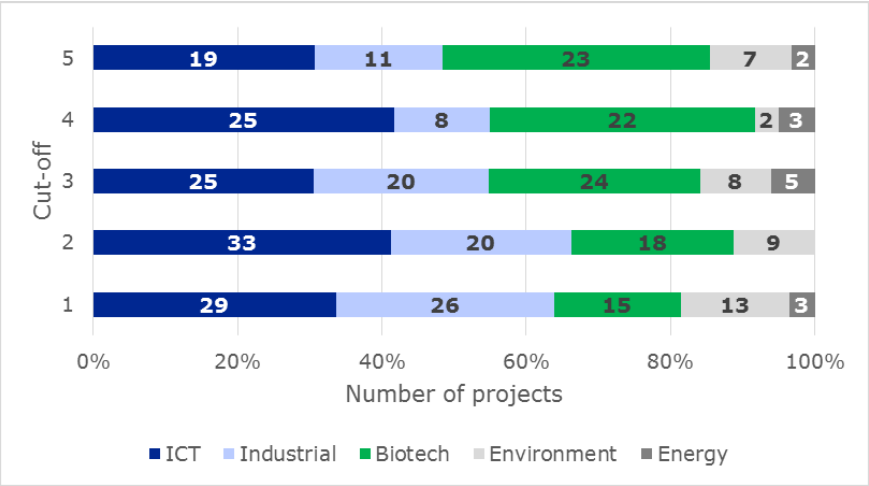
Figure 29: Number of projects by technological area



Source: Eurostars Database (2016)

As it can be seen in the figure below, between the 1st and 5th cut-off, the number of projects addressing the ICT and Industrial area had a significant decrease, of 34% and respectively 58%; meanwhile the number of projects addressing the Biotech area increased by 53%.

Figure 30: Number of projects by technological area and cut-off



Source: Eurostars Database (2016)

The implemented projects were aimed at developing products, processes or services for the following markets, order by EU commitment:

- ICT: Computer Related, Communications, Medical / Health Related, Services, Industrial Products / Manufacturing, Consumer Related, Transportation, Other Electronics Related, Construction And Building Products, Energy, Agriculture, Forestry And Fishing, Biotechnology / Molecular Biology
- Biotech: Medical / Health Related, Biotechnology / Molecular Biology, Agriculture, Forestry And Fishing, Industrial Products / Manufacturing
- Industrial: Industrial Products / Manufacturing, Other Electronics Related, Medical / Health Related, Energy, Transportation, Construction And Building Products, Consumer Related, Biotechnology / Molecular Biology, Computer Related, Services
- Environment: Agriculture, Forestry And Fishing, Industrial Products / Manufacturing, Transportation, Biotechnology / Molecular Biology, Services, Energy, Communications, Construction And Building Products, Consumer Related, Other Electronics Related
- Energy: Energy, Computer Related, Transportation

For further information on the number of projects and EU commitment by primary market, please consult 0.

IMPACTS OF EUROSTARS-1 PROJECTS

The process for assessing the impacts of Eurostars-1 projects followed a **three-stage approach**. Namely, the Research Team developed:

- An analysis at **commercial level** aimed at measuring the effectiveness of the Eurostars-1 projects, in terms of:
  - Achievement of the expected results (i.e. developing a product/process/service);
  - Effectiveness in introducing a product/process/service in the market.
- An analysis at **beneficiary level** focused on the impacts deriving from the participation in the programme in terms of:
  - Company growth;
  - Jobs created;
  - Profitability of the investment.
- An in-depth analysis has been performed on a representative sample of 30 projects in order to investigate:
  - Reasons for applying, previous experience and collaboration with project partners;
  - Project results;
  - Project benefits on the beneficiaries;
  - Sustainability of project benefits and results;
  - Hampering and fostering factors for introducing the project results in the market.

For the commercial analysis we performed an analysis at project level starting from the information provided by the main project partners related to the following:

- Was the **project result** (product/process/service) successfully achieved? (*Q 1.3 FiR*);
- **Market introduction** (year) for the product/process/spin-off (*Section 1 of MIR).* We considered as "successful" all projects that, based on the information available, declared that a product/process/service has been introduced to the market up to two years after the completion of the project activities. Information included within the MIRs have been cross-checked with the information collected during the short-interviews (see 0 for further details.)

For the second type of analysis, at beneficiary level, the indicators considered in the evaluation have also been extracted from project questionnaires that are currently available, and are presented in the following figure.

Figure 31: List of indicators used for assessing the impacts of Eurostars-1 implemented projects

Evaluation field	Indicators	Source of information	
		Project Questionnaires	Section
Company growth	**Annual Turnover** (three years before the completion of project activities)	FiR	3.1.b
	Annual Turnover (three years after the completion of project activities)	MIR	2
	Annual R&D expenditure (three years before the completion of project activities)	FiR	3.1.b
	Annual R&D expenditure (three years after the completion of project activities)	MIR	2
	Annual gross earnings	FiR	3.1.b

	(three years before the completion of project activities)		
	Annual gross earnings (three years after the completion of project activities)	MIR	2
Employment	**Number of Employees as FTE** (three years before the completion of project activities)	FiR	3.1.b
	Number of Employees as FTE (three years after the completion of project activities)	MIR	2
Profitability of the investment	**Investment undertaken**	FiR	1
	Additional turnover generated	FiR	1

However, significant limits have been encountered in the analysis, as except for the last two, the above-listed indicators do not provide insights on the contribution of the Eurostars-1 projects on the financial situation of the beneficiaries. Instead, they are only supporting the construction the overall financial situation at beneficiary level.

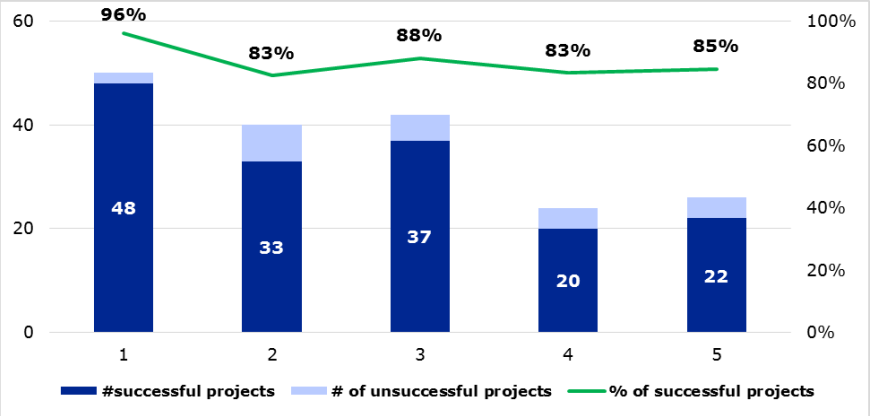
Due to data availability the overall analysis has been conducted only on 182 projects that absorbed € 29.7 million, which is around 50% of the total EU commitment to the Eurostars-1 programme. The completed list of projects included in the analysis is presented in Annex 6.

Commercial results for Eurostars-1 completed projects

Achievement of the expected project results

Within the considered sample, 88% of the projects (i.e. 160 out of 182) achieved the expected results in the sense that the main partner declared that all the planned products/ processes/ services have been developed within the project implementation period.

Figure 32: Achievement of the expected results (# projects: 182)

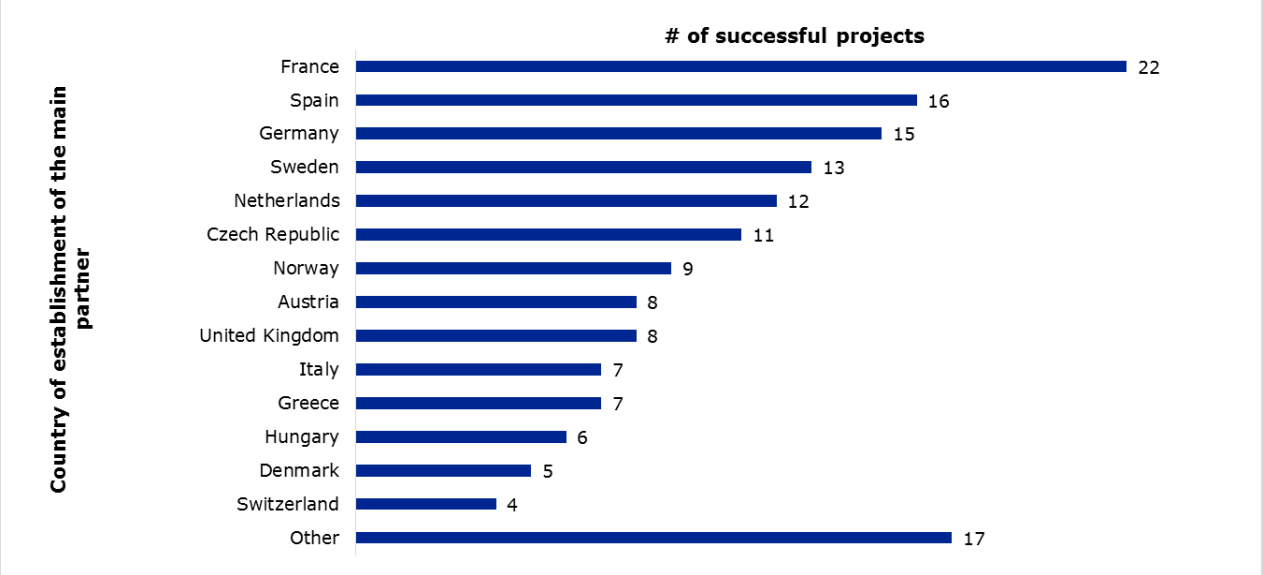


Source: Eurostars Database (2016)

The concentration of successful projects in terms of achievement of expected results within the first call is probably due to the fact that beneficiaries funded under these calls provided more information.

Considering the country of establishment of the main partner, around 50% of the successful projects have been coordinated by R&D performing SMEs based in 5 countries (France, Spain, Germany, Sweden and the Netherlands). This reflects the geographical distribution of the approved beneficiaries (see section 0 for further details).

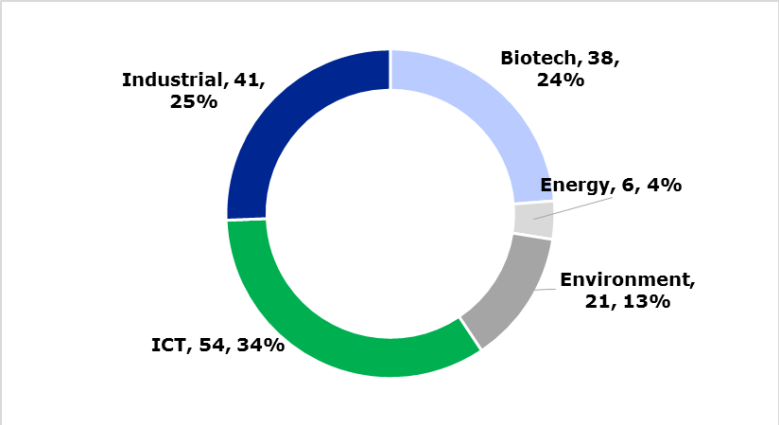
Figure 33: Successful projects in terms of achievement of expected results per country of establishment of the main partner (# projects: 160)



Source: Eurostars Database (2016)

The successful projects cover all the technological areas (Figure 34). However, 73% of the developed products/process/services refer to only three (ICT, Industrial, Biotech) technological areas. Concerning the primary market for the developed product/ process/ services, 33% are related to three markets: Medical / Health Related, Consumer Related and Industrial Products / Manufacturing (Figure 35).

Figure 34: Successful projects in terms of achievement of expected results per technological area (# projects: 160)



Source: Eurostars Database (2016)

Figure 35: Successful projects in terms of achievement of expected results per primary market (# projects: 160)

Tech. Area	# succ. projects	Total Succ. Projects	Primary market	# succ. projects	(c)/(a)	(c)/(b)
	(a)	(b)		(c)		
Biotech	38	160	Medical / Health Related	29	76%	18%
Energy	6		Energy	5	83%	3%

Environment	21		Agriculture, Forestry and Fishing	3	14%	2%
			Industrial Products / Manufacturing	5	24%	3%
ICT	54		Communications	1	2%	1%
			Computer Related	1	2%	1%
			Consumer Related	7	13%	4%
			Industrial Products / Manufacturing	7	13%	4%
			Services	3	6%	2%
Industrial	41		Industrial Products / Manufacturing	5	12%	3%

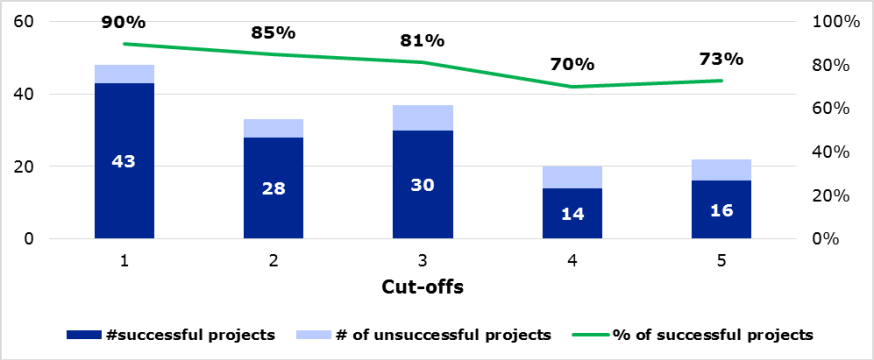
Source: Eurostars Database (2016)

Commercialisation of the project results

Another result that has been analysed is the capacity of the projects of introducing in the market the developed products/processes/services.

As shown in Figure 36, considering the 160 projects that developed a product/process/service, only 131 (i.e. 82%) succeeded in introducing it in the market. The success rate is higher among the projects funded under the first three calls.

Figure 36: Commercialisation of the project results (# projects: 131)

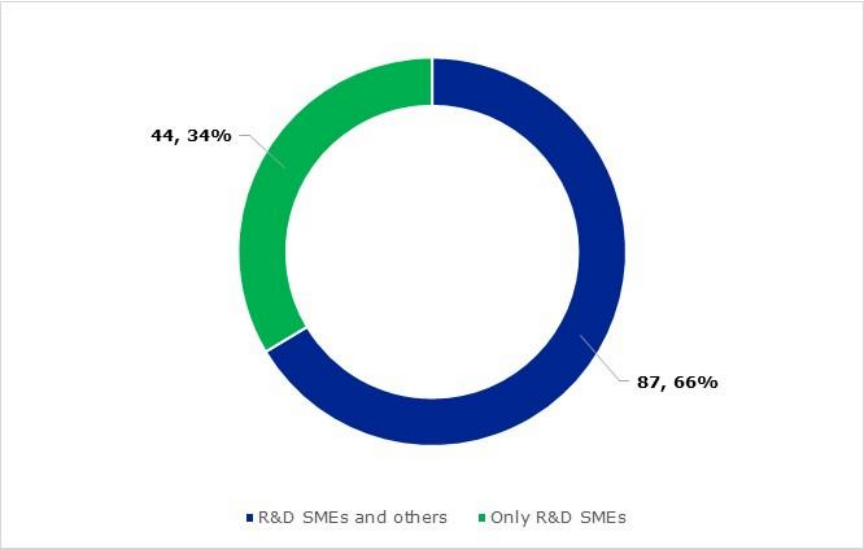


Source: Eurostars Database (2016)

However, it is interesting to investigate the distribution of successful projects in terms of commercialisation of project results with respect to the size and the type of consortium.

Despite the fact that consortium with R&D performing SMEs were only more successful in terms of approved applications (see Figure 13), 66% of the projects that introduced a product/ process/ service in the market are characterised by consortia that include R&D SMEs plus other types of beneficiaries.

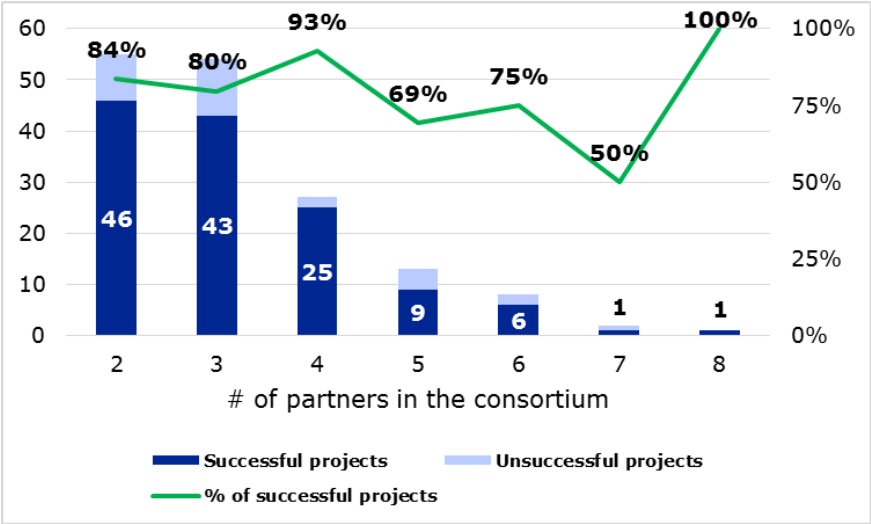
Figure 37: Successful projects in terms of commercialisation of project results per type of consortium (# projects: 131)



Source: Eurostars Database (2016)

Another factor that seems to influence the success of the projects is the size of the consortium. It seems that the smaller consortia (i.e. with a number of partners less or equal to 4) were the most effective ones in commercialising the developed products/processes/services (Figure 38)

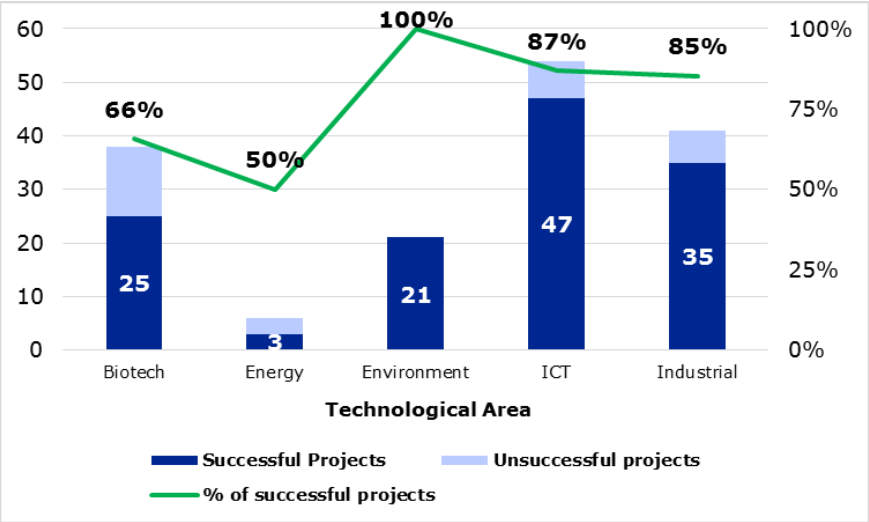
Figure 38: Successful projects in terms of commercialisation of project results per size of consortium (# projects: 131)



Source: Eurostars Database (2016)

In terms of technological areas, Environment, ICT and Industrial seem the ones where the commercialisation phase has been more successful (Figure 39).

Figure 39: Successful projects in terms of commercialisation of project results technological area (# projects: 131)



Source: Eurostars Database (2016)

Also in the case of the primary market, most of the products/processes/services have been commercialised within the medical/health, manufacturing and consumer-related sectors.

Figure 40: Successful projects in terms of commercialisation of project results per primary market (# projects: 131)

Tech. Area	# succ. Projects	Total Succ. Projects	Primary market	# succ. Projects	(c)/(a)	(c)/(b)
	(a)	(b)		(c)		
Biotech	25	131	Medical / Health Related	19	76%	15%
Energy	3		Energy	3	100%	2%
Environment	21		Agriculture, Forestry And Fishing	3	14%	2%
			Industrial Products / Manufacturing	5	24%	4%
ICT	47		Communications	1	2%	1%
			Computer Related	1	2%	1%
			Consumer Related	5	11%	4%
			Industrial Products / Manufacturing	7	15%	5%
			Services	3	6%	2%
Industrial	35		Industrial Products / Manufacturing	18	51%	14%

Source: Eurostars Database (2016)

Impacts from the participation in the Eurostars-1 programme

This section is aimed at assessing the impact of the ended Eurostars-1 projects on the beneficiaries. In particular, the following aspects have been considered:

- **Company growth** in terms of:
  - Annual turnover;
  - Annual investment in R&D activities;
  - Annual earning;
- **Jobs created**;
- **Profitability of the investment**.

The following paragraphs present the results of the analysis. However, it is important to underline some of the limitations encountered (for further details on data quality and availability please refer to Chapter *Quality analisis of available data*.

- The analyses have been conducted only on 258 R&D SMEs and SMEs (21.6% of the total) because only for these beneficiaries the Eurostars database contains completed data from both MIR and FiR;
- The timeframe considered is six years (i.e. three years before the completion of each project and three years after the completion of each projects);
- We only used the data as declared within the project reports, however the results are probably affected by the reliability of what was declared.

Company growth

In terms of company growth the following figures show that SMEs participating in projects that introduced a product/ process/ service in the market are characterised by the following:

- have higher annual turnover with respect to SMEs that were involved in not successful projects (Figure 41);
- benefited from a higher growth of the turnover with respect to SMEs that were involved in not successful projects (18% versus 13%) over the six year period considered (Figure 42);
- have a lower annual investment in R&D as well as faced a lower increase of the investment in R&D (Figure 42 and Figure 43);
- have a higher annual earning and they benefited from a higher increase in earning, both in absolute value as well as in relative terms (i.e. as % of the turnover).

Figure 41: Average annual turnover per type of beneficiary and project

Type of		Average annual turnover		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	EUR 2,906,104	EUR 3,272,381	EUR 366,278	13%
Successful	SMEs	EUR 3,332,984	EUR 3,926,265	EUR 593,281	18%

Source: Eurostars Database (2016)

Figure 42: Average annual investment in R&D per type of beneficiary and project

Type of		Average annual investment in R&D		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	EUR 695,919	EUR 1,031,249	EUR 335,330	48%
Successful	SMEs	EUR 678,636	EUR 859,852	EUR 181,216	27%

Source: Eurostars Database (2016)

Figure 43: Average annual investment in R&D as % of the average annual turnover per type of beneficiary and project

Type of		Average annual investment in R&D		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	24%	31%	7%	30%

Successful	SMEs	20%	22%	2%	9%

Source: Eurostars Database (2016)

Figure 44: Average annual earning per type of beneficiary and project

Type of		Average annual earning		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	EUR 1,124,121	EUR 1,217,475	EUR 93,354	8%
Successful	SMEs	EUR 1,249,233	EUR 1,557,780	EUR 308,547	25%

Source: Eurostars Database (2016)

Figure 45: Average annual earning as % of the average annual turnover per type of beneficiary and project

Type of		Average annual Earning		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	39%	37%	-1%	-4%
Successful	SMEs	37%	39%	2%	5%

Source: Eurostars Database (2016)

Employment

Another element that emerged from the data provided by beneficiaries is that SMEs that have taken part in successful projects are the ones with a higher number of employees (Figure 46). These SMEs are also the ones that created (on average) 3 new jobs after the completion of the project activities.

However, there is no difference concerning the percentage of employees involved in R&D activities; in general SMEs that participated in Eurostars-1 projects allocated 42% of their FTEs to R&D activities with no significant variation before/after the completion of project activities.

Figure 46: Average annual number of FTEs per type of beneficiary and project

Type of		Average annual Employees (FTEs)		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	21	20	-1	-6%
Successful	SMEs	28	31	3	9%

Source: Eurostars Database (2016)

Figure 47: Average annual number of FTEs involved in R&D activities per type of beneficiary and project

Type of		Average annual Employees (FTEs)		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	9	8	-1	-8%
Successful	SMEs	12	13	1	8%

Source: Eurostars Database (2016)

Figure 48: Average annual number of FTEs involved in R&D (as % of total number of FTEs) activities per type of beneficiary and project

Type of		Average annual Employees (FTEs)		Δ	
Projects	**Beneficiaries**	**before the completion of project activities**	**after the completion of project activities**	**Abs. term**	**%**
Not Successful	SMEs	42%	42%	0%	-1%
Successful	SMEs	43%	42%	-1%	-1%

Source: Eurostars Database (2016)

Profitability of the investment

Indicators presented so far described the economic performance of the Eurostars-1 beneficiaries. However, these are not useful to assess the direct impacts of the programme because the causal link between economic performance and participation in the programme is far from being demonstrated.

The only element that might be measured is the profitability of the investment. In particular FIRs and MIRs contain information regarding the total investment undertaken and the additional turnover generated. Based on this data it is possible to compute the profitability of the investment as:

$$\pi = \frac{Additional\ Turnover\ Generated\ (T) - \ Total\ Investment\ undertaken\ (I)}{Total\ Investment\ undertaken\ (I)}$$

Data available show a very limited profitability of the investment undertaken so far: on average a SMEs beneficiary of Eurostars-1 invested more than € 1.2 million and benefited from an additional turnover equal to € 682 thousand (i.e. less than 50% of the overall investment).

Figure 49: Investment undertaken, additional turnover and profitability of the investment

Type of projects	Beneficiaries	Role	I (EUR)	T (EUR)	π
Not Successful	SMEs	Main	2,926,800	692,250	-76%
		Partner	339,958	126,667	-63%
		Total not successful projects	***1,818,153***	***449,857***	***-75%***
Successful	SMEs	Main	1,538,861	895,168	-42%
		Partner	752,191	523,713	-30%
		Total successful projects	***1,158,422***	***715,530***	***-38%***
		Total all projects	**1,241,184**	**682,202**	***-45%***

Source: Eurostars Database (2016)

Results presented so far rely of the data provided by beneficiaries within the project questionnaires (FiR and MIR) and are referring to projects that, in most of the cases, are at the beginning of the commercialisation phase.

However, the completeness and the quality of the project questionnaires underline the need for an in-depth reflection about the monitoring mechanisms in place that should allow the EC to get an updated and realistic picture on the implementation of the Eurostars programme.

In order to better understand the impacts generated by the Eurostars-1 projects the following paragraphs present the results of the in-depth analysis of a sample of projects (see 0 for further details on the sample).

In-depth analysis of a sample of Eurostars-1 projects

The results of the 30 in-depth interviews that have been conducted are hereinafter presented. Dedicated sections are first discussing the projects and beneficiaries with products introduced in the market, secondly the projects and beneficiaries with no products introduced in the market.

This line of demarcation allows a more contextual assessment of Eurostars-1 projects in terms of impacts generated by the introduction in the market of project results.

Except for one, the interviews involved the main partners of the selected projects. In the former case the interviewee was delegated by the main partner to represent within the interview the consortium which implemented the Eurostars-1 project.

The analysis below is based on responses from 18 interviewed beneficiaries representing projects that *successfully* introduced products/processes/services in the market, 3 beneficiaries from projects that *partially* introduced in the market the project results and 9 interviewed beneficiaries who *did not introduce* their developed products/processes/services in the market.

Reasons for applying, previous experience and collaboration with project partners

Successful projects

The majority of interviewees (18 out of 21) with successful projects declared they have implemented R&D activities and projects previous to the participation in the Eurostars-1 programme.

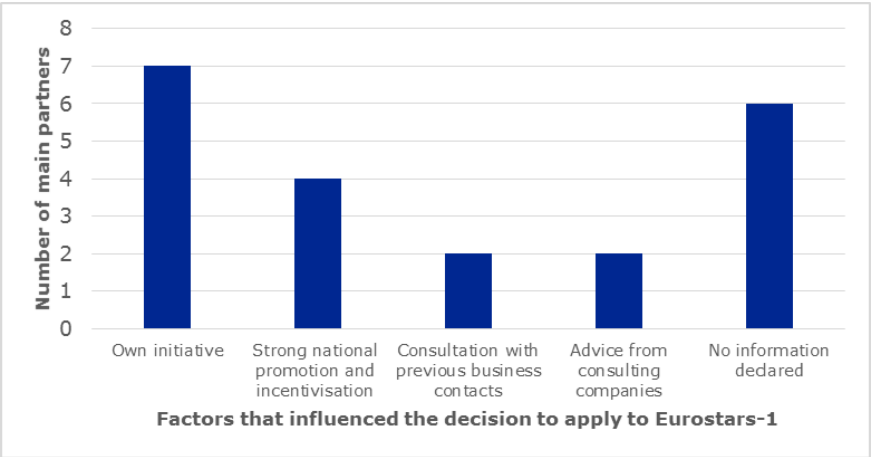
Almost all interviewed beneficiaries reported to have used both public grants (i.e. at EU - and national-levels) as well as external private / internal funding mechanisms (i.e. retained profits, share capital) as sources of funding for conducting R&D activities and projects.

For most of the projects analysed in-depth - with results introduced in the market, the main partners had taken the initiative to apply to the Eurostars-1 programme.

Strong national promotion and incentives have been mentioned as important factors that determined the project partners to apply to the programme. Norway, Spain and Sweden have been signalled. Both interviewed main partners from Norway referred to this aspect. Regarding Spain, one main partner has been contacted by the National Project Coordinator in order to be informed about the opportunity and benefits to finance R&D projects under Eurostars-1. The continuous involvement of the interviewee in R&D activities has been indicated as the main reason for being contacted, considering the potential interest that they could have had in applying for receiving financial support. As for Sweden, one beneficiary mentioned Sweden's Innovation Agency disseminated information regarding Eurostars-1.

Conversation with previous business contacts and advice received from consulting companies have also been pointed as factors that influenced the interviewees to pursue participation in the Eurostars-1 programme.

Figure 50: Factors influencing the decision to apply to Eurostars-1 programme of main partners (successful projects)



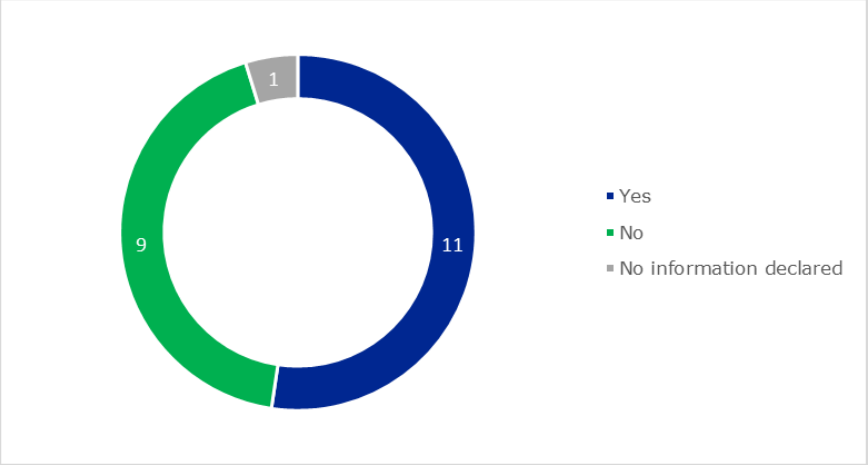
Source: In-depth interviews conducted within the study

Expected benefits accompanying the decision to participate in Eurostars-1 referred to:

- access to funding, making possible the implementation of planned projects;
- development and market introduction of innovative products/services/processes;
- entering new markets;
- development of internal capabilities;
- products/services/processes diversification;
- increased reputation;
- increased profitability;
- strengthened competitiveness;
- technological advancement of products/services/processes;
- creation of long-term partnerships;
- internationalisation of the project results.

Both previous and new collaborations of project partners have been declared by the interviewees. Half of them mentioned they had previous business relationships with their partners, either commercial or research-related. The other half reported different contexts in which they met the partners with whom they did not collaborate before Eurostars-1, namely: conferences and networking events, governmental missions in other countries, discussion facilitated by external sources (i.e. consulting firms, partnerships sourcing specialists).

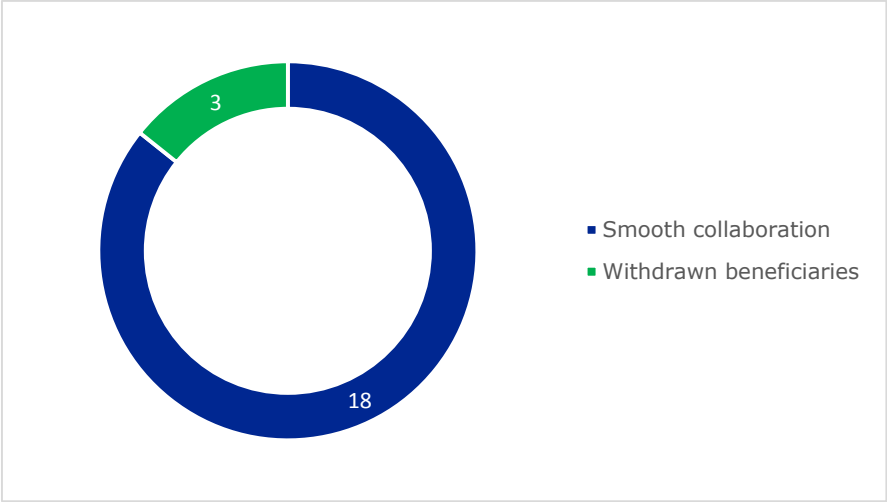
Figure 51: Previous collaboration of project partners (successful projects)



Source: In-depth interviews conducted within the study

The majority (18 out of 21) of main partners declared a smooth collaboration among the partners they coordinated during the implementation of the Eurostars-1 projects. The other 3 beneficiaries reported instances of a partner being withdrawn from the project, by agreement between the remaining project partners, due to inactivity or registration issues.

Figure 52: Continuity of collaboration with project partners during the implementation phase (successful projects)



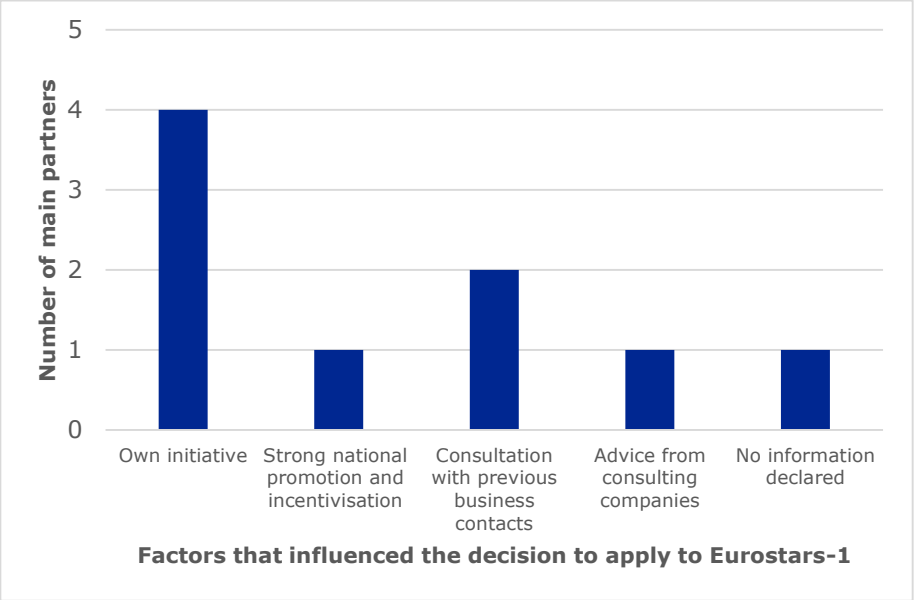
Source: In-depth interviews conducted within the study

Not successful projects

All 9 interviewed beneficiaries had previous experience in implementing R&D activities. Typical sources of financing for R&D activities and projects they were involved in included retained profits/share capital, external debt financing and other grants/public funding programmes.

Half of the interviewed main partners reported to have taken the initiative to apply to Eurostars-1 programme in search for funding for their innovative projects. Two other main partners declared they have discussed with previous business contacts and after that they decided to apply for receiving funds. Advice received from consulting companies had also influenced the decision of one main partner. Moreover, strong national promotion and incentive were mentioned by beneficiary from Hungary.

Figure 53: Factors influencing the decision to apply to Eurostars-1 programme of main partners (not successful projects)



Source: In-depth interviews conducted within the study

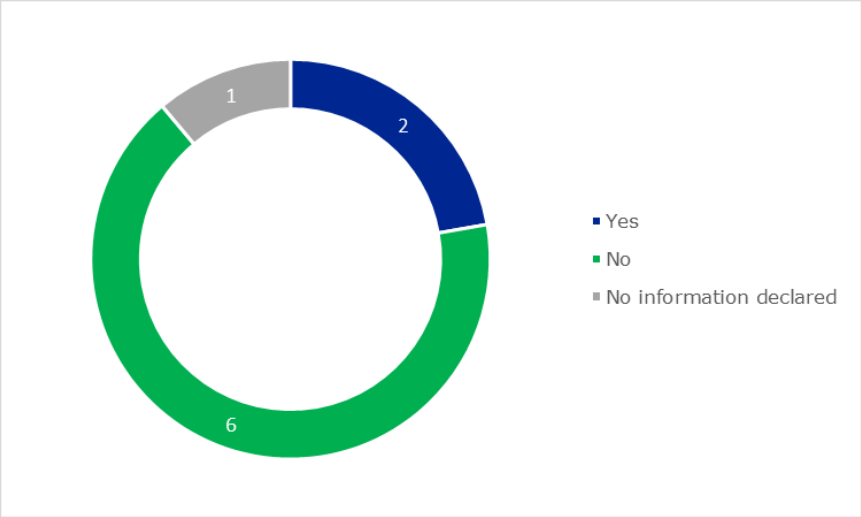
The interviewed beneficiaries declared their **expected benefits** revolved around:

- access to funding that would make possible the implementation of planned innovative projects;
- facilitated partnerships with different organisations;
- built or improved internal capabilities and skills;
- improved visibility and thereby reputation of the organisations;

- improved competitive position (one respondent also discussed the benefit for investors linked to debt and equity free capital for the project).

Regarding partnership creation, the majority of interviewed main partners declared they did not have previous collaborations with their partners within Eurostars-1 programme. The opposite situation was also encountered, however, for two projects.

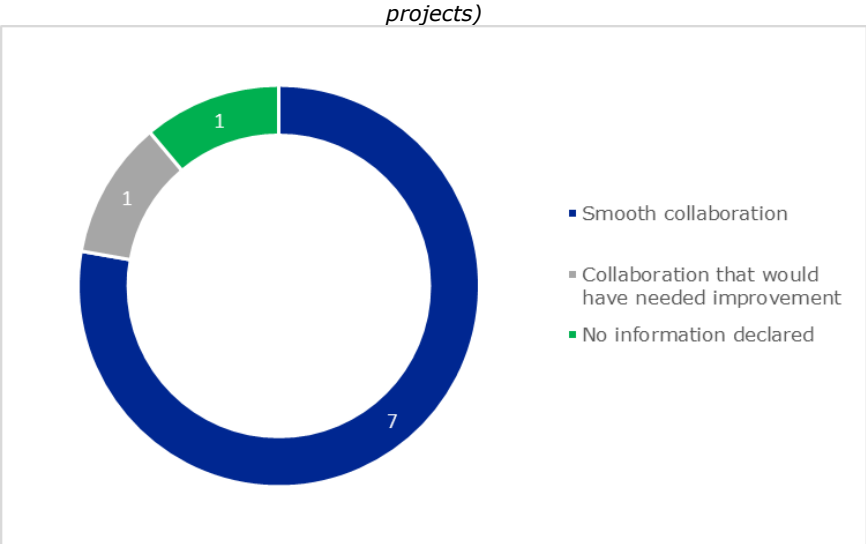
Figure 54: Previous collaboration of project partners (not successful projects)



Source: In-depth interviews conducted within the study

More than half of the main partners declared that the collaboration with the other project partners was smooth. One main partner mentioned difficulties in coordinating with 4 partner organisations to determine the right decision in a reasonable timeframe. The perception of project partners was that an improved coordination between them could have reduced delays, improved the allocation of resources and brought the project closer to market introduction.

Figure 55: Continuity of collaboration with project partners during the implementation phase (not successful projects)



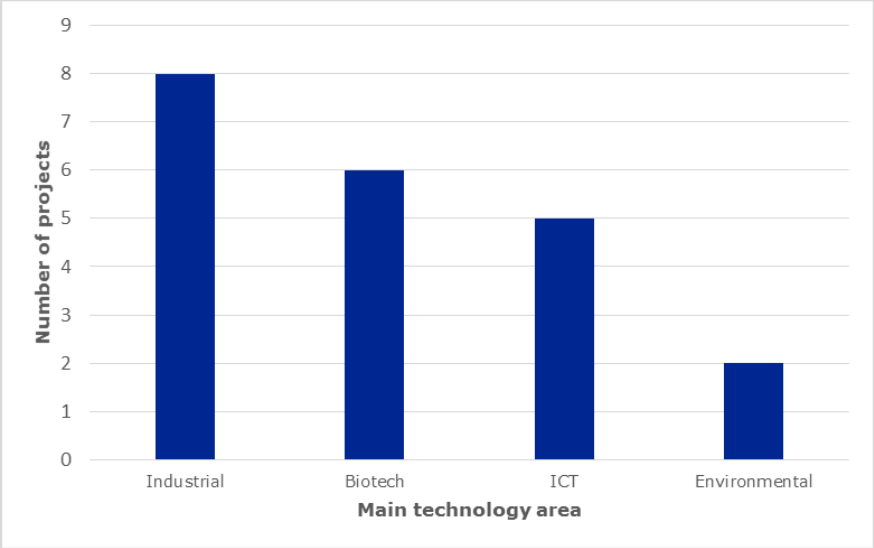
Source: In-depth interviews conducted within the study

Project Results

Successful projects

Three main technology areas have been addressed by the majority of the interviewees in the projects developed within Eurostars-1 programme whose results have been introduced in the market, precisely: Industrial, Biotech and ICT. R&D research has been performed also in the Environmental technology area. However, only one of the projects analysed in-depth was focused on this field.

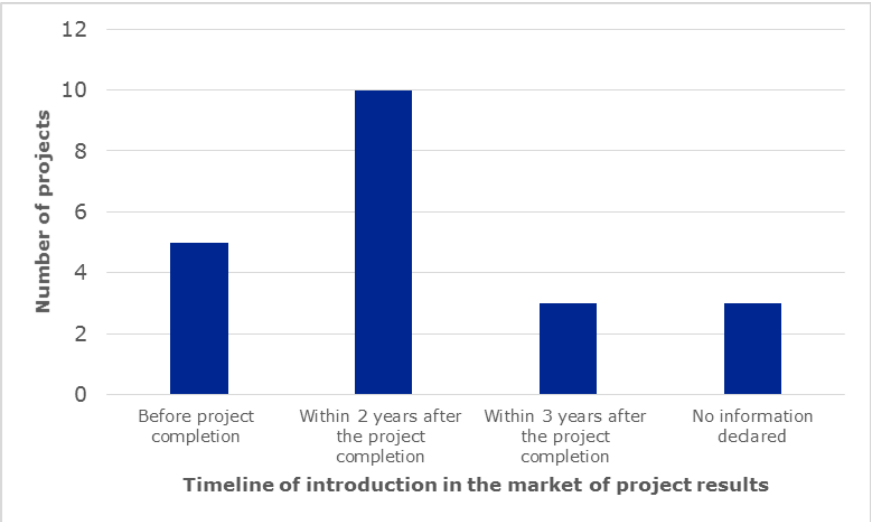
Figure 56: Main technology areas of the in-depth analysed projects with results introduced in the market



Source: In-depth interviews conducted within the study

Most of the in-depth projects analysed (15 out of 21) are aligned with the setup of the Eurostars-1 programme which foresees the introduction of project results within 2 years after the project completion. For a significant part of them (5 out of 15) the introduction of project results in the market succeeded even before the project completion. Even if there were also projects (3 out of 21) with a delayed introduction in the market, there were no large differences between the actual and planned date of market introduction (consisting in less than 12 months).

Figure 57: Timeline of introduction in the market of project results



Source: In-depth interviews conducted within the study

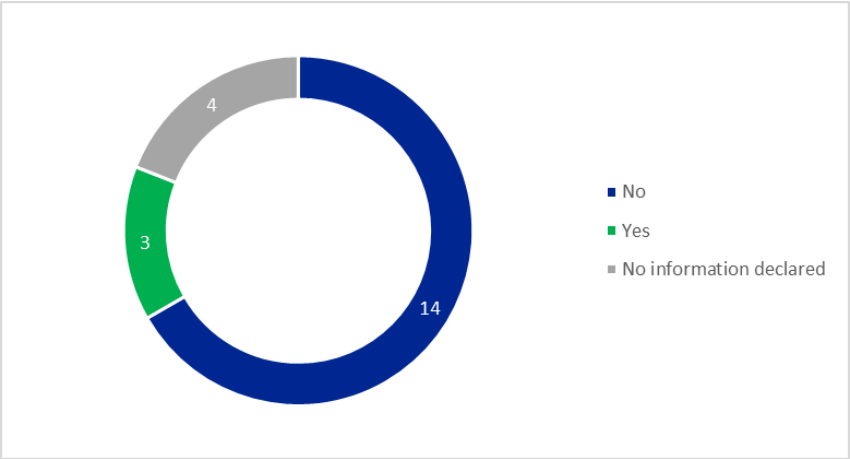
The large part (14 out of 21) of the interviewed beneficiaries have not received grants or loans for introducing the project results in the market.

However, a beneficiary has reported to be currently investigating additional funding sources to expand the current commercial operation in the European market to the global market.

Moreover, two beneficiaries (French and Swedish) declared the national authorities awarded grants to support the market introduction.

Another four beneficiaries did not elaborate on this topic.

Figure 58: Grants or loans received by main partners for market introduction of project results

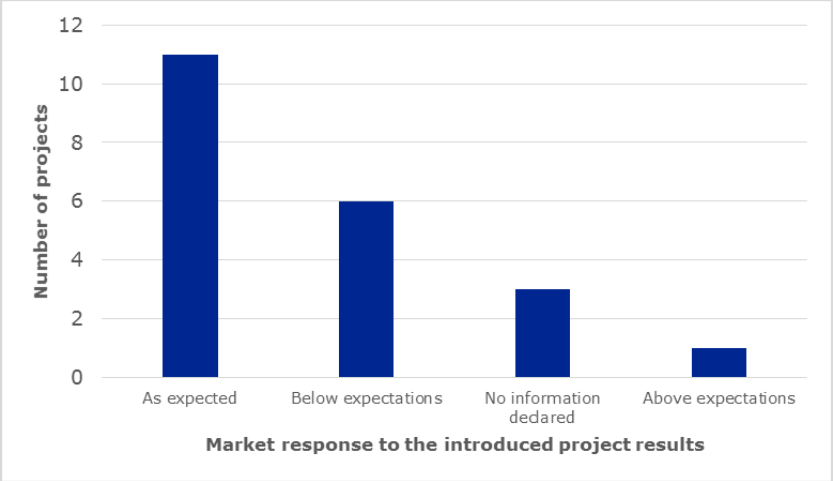


Source: In-depth interviews conducted within the study

Europe and the USA have been the main targeted markets for the introduction of project results. More than half (15 out of 21) interviewees declared a market presence in the US and European markets (specifically in Nordic countries, the Netherlands, Belgium, UK, France, Greece, Portugal, Germany, Spain, Poland). Five interviewees reported the commercialisation of project results at a global scale. Only two beneficiaries mentioned a current presence in Asian markets (namely in Singapore and Malaysia, respectively). Another one is planning to extend the commercial exploitation territory in order to also include Asia. Additionally, two beneficiaries did not elaborate on this topic.

The market response to the introduction of project results has been the expected one for most of the interviewed beneficiaries (11 out of 21). However, 1/3 of them reported that the response from the market in terms of profitability had been disappointing in comparison to their expectations. Various reasons have been mentioned, some respondents attributing the disappointing market response to specific market aspects (e.g. current static state of the market), whilst others attributed it to the market entry strategy used (e.g. over-ambitious product pricing).

Figure 59: Market response to the introduced project results

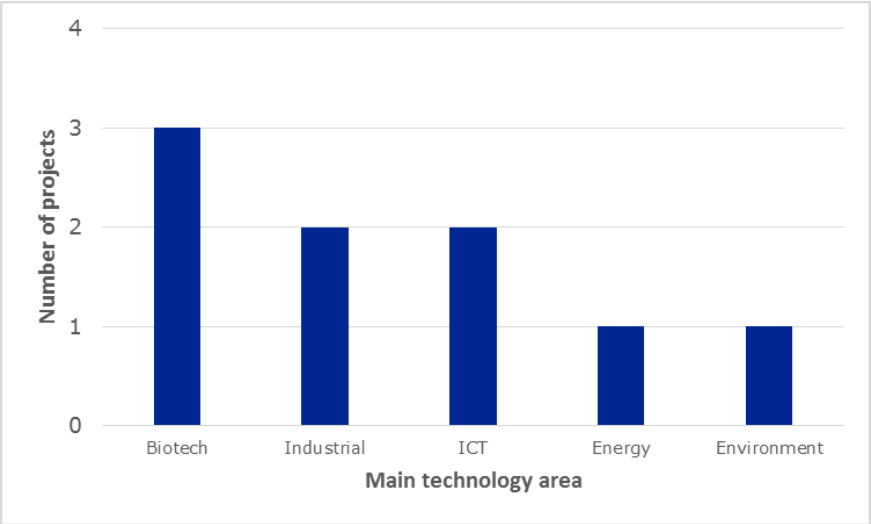


Source: In-depth interviews conducted within the study

Not successful projects

A rather balanced distribution of the 9 projects regarding the main technology areas addressed could be noticed in the figure below, Biotech being preferred by 3 project partners, especially for the Medical/Health market. The same market has been addressed through the 2 projects implemented within the Industrial Technology area. The ICT area has been targeted by two projects specifically for Transport and Communication markets, while another two projects were focused on Alternative Energy and Environment, respectively.

Figure 60: Main technology areas of the projects analysed in-depth with no results introduced in the market



Source: In-depth interviews conducted within the study

All 9 interviewed beneficiaries with no products introduced in the market pursued innovative technological development considered unique in the market.

Despite the fact that no products have been introduced to the market, significant efforts have been made in developing the planned project results, and the following maturity stages have been achieved per project:

- A patented concept specific to the renewable energy area was expected to be advanced to a state of qualified technology. The technology was modified two times as agreed with the EU representatives. Currently a full-scale demonstration of the last solution is in the planning. The following planned step will be the introduction of the technology in the market.
- A medical device is currently in a mature development state. Extensive preclinical testing was needed in order to obtain a product compliant with safety requirements. The introduction in the market is expected to take place at the end of 2017.
- Another medical device and the related predictive model are currently developed. However, the main cause of not introducing them in the market is the response received from the European market in terms of demand (both from a qualitative and quantitative perspective: the accuracy of the model was not the one expected by the targeted clients, additional validation being required; moreover, the targeted clients with whom the partnership had been in contact were not very receptive, therefore the European market is perceived by the main partner as not open to the type of product they could offer. The main partner is planning to develop the device based on a different, more cost-effective technology and to introduce it in the USA market where clinicians have been identified as more receptive.
- Another product, also a medical device, has not been introduced in the market as the results of the preclinical trials indicated some adjustments have to be made. Additional knowledge and funds are needed in order to continue the improvement of the medical device. Currently, the partners are looking for an investor. Even if a large advisory board has been involved in the project, there is still the need of additional knowledge in order to identify if some research / development areas have not been investigated / exploited enough. Funds are needed especially for the additional preclinical trials which have not been anticipated. The project is an ambitious one, with a lot of challenges. The introduction in the market is expected to take place in 3 years.
- The development of an ICT, Electronics project, very innovative in terms of the technology used, was hindered by the high costs to develop some prototypes and by some technical problems. Additionally, the devices were not working to the level of rigor required for commercialisation. The technology was not mature enough for market introduction, and it needed an additional 2-3 years for maturing. The product was later refined and optimised (i.e. 3-4 years after project completion) and trials have been performed.
- A Biotech, Medical-oriented project was not intended to have introduced a product to the market at completion but to have advanced the development of the pharmaceutical products to the next stage. As patent production is essential in securing financing for the long-term investment required for development, the beneficiary has shifted the focus to developing another type of drugs which entails greater regulatory protection. Clinical trials have been performed, and a further 2-3 are planned for this year. The next stage of clinical trials will be

financed through the organisation's retained profits. Currently the organisation is investigating sources of investment for further development of the drugs. As previously mentioned, the project was designed to bring the drug to the next stage of its iterative development, which is currently being undertaken.

- Within an ICT, Communications project, a product was developed and sold to several customers but the decision was made to attempt and further technologically develop the product in order to improve its efficiency and aim for a much larger market share. The product is still unique in the market and the beneficiary has decided to invest in its further development. The improved product is aimed at the global market, expanding the current international reach of the organisation.
- A project's aim was to introduce a medical device in the market. However, during the project, resources were focussed just on developing the process behind the device. A patent has been obtained. The product has not been introduced in the market given the regulatory requirements for clinical trials to be conducted first. Because the product falls under Class III of medical devices, a clinical trial must be performed to evaluate tolerability and efficacy. As the organisation does not sell medical devices itself, it is reliant on finding a pharmaceutical organisation to partner with to sell the product. However, this has not been successful to date, due to the requirement of successful clinical trial data from potential partners before any agreement is made. The speed at which these clinical trials happen depends largely on agreements with partner organisations as new management, introduced during the project, seeks to limit the investment of the company in clinical trials. The organisation is still meeting with potential partners who could conduct the clinical trials, including the necessary financial investment, in order to introduce the medical device to the market.
- The main scope of an Environmental project was the development of a technology to produce rubber power. The technology has been developed, however its commercialisation depends on the intensity of third parties' investments in building the required hosting infrastructure (i.e. factories). Currently, at least one opportunity of commercialisation has been identified.

Projects benefits

Successful projects

The five types of benefits listed below are perceived as common to all the projects with results introduced in the market which have been analysed in depth. However, a different mix of benefits characterises each project.

Figure 61: Benefits of participating in Eurostars-1 projects (successful projects)

Benefit	Description
Knowledge benefits	Improved research competencies (scientific, technical), improved access to complementary expertise
Network benefits	Formation of both short and long-term partnerships and networks, especially with project partners through knowledge transfer, improved R&D linkages with universities and other research institutes, improved R&D linkages with industry and business
Reputational benefits	Enhanced reputation and image, visibility of the entity in the market as a result of the participation in an EU-funded research programme or through online articles describing the developed innovative products/services/processes, facilitated participation in other R&D or innovation programs
Improved competitive position	Increased investment in R&D projects and research results, access to financial resources (especially relevant for countries under economic and financial assistance), increased turnover generated, increased company growth, new markets developed, increased number of employees, increased innovation, increased sustainability, enlarged portfolios of products/processes/services, introduction of new products/processes/services in the market
Internationalisation benefits	International cooperation with other research institutions, better access to international markets, internationalization of activities.
Other benefits	An unexpected benefit of the participation in the Eurostars-1 programme was reported by a Greek beneficiary regarding the importance the received funding played in enabling business survival within the fiscal crisis enveloping the country during the project period.

Source: In-depth interviews conducted within the study

Not successful projects

The benefits declared by main partners from not successful projects are very similar and are included in the following figure.

Figure 62: Benefits of participating in Eurostars-1 projects (not successful projects)

Benefit	Description
Knowledge benefits	As each project partner had different roles and development areas to coordinate, the knowledge benefits are high including building internal capabilities and skills related to the development of a new product, industry or manufacturing technique.
Network benefits	The creation of long-term strategic partnerships was indicated as the most significant benefit in this category, together with the development of an extended network of contacts (especially from the medical area)
Reputational benefits	Interviewed beneficiaries highlighted perceived reputational benefits to participating in the Eurostars-1 programme, including both an increase in the visibility of their organisation as well as a reputational benefit from association with a selective European Union funding programme;
Improved competitive position	Especially through the development of unique products, services or processes, access to finance allowed the partners to conduct high-risk processes and strategic investments which were otherwise not encouraging enough to be followed;
Internationalisation benefits	In terms of the opportunity to expand the business into new markets.
Other benefits	The establishment of a clear timeframe which determined the partners to concentrate their efforts to develop the planned projects, transforming the related activities in apriority, therefore a reduced timeframe for development and commercialisation of project results; The obligation to formalise the terms of the partners' cooperation by signing a cooperation agreement establishing each one's roles and responsibilities, respectively other matters which would have been forgotten and could have generated conflicts if Eurostars-1 programme wouldn't have created the appropriate framework; The possibility to develop a pilot project in order to showcase the technology used to potential customers.

Source: In-depth interviews conducted within the study

Sustainability of project results and benefits

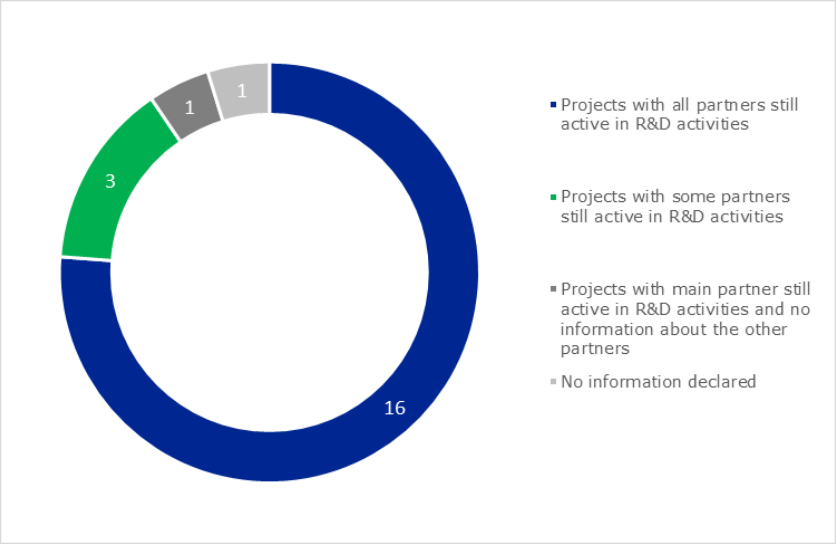
Successful projects

For all the 21 projects analysed in-depth, all interviewed beneficiaries reported that all project partners (including them) are still active in their respective markets.

Regarding 16 out of the 21 projects analysed in-depth with results introduced in the market, the interviewed beneficiaries reported that all project partners are still currently active in carrying out R&D activities. The following situations correspond to the other 5 projects:

- For 3 projects the interviewee stated that only some of the partners are currently involved in R&D activities;
- For 1 project the interviewee was involved in R&D activities, however, no information about the project partners was available;
- For 1 project no related information has been provided.

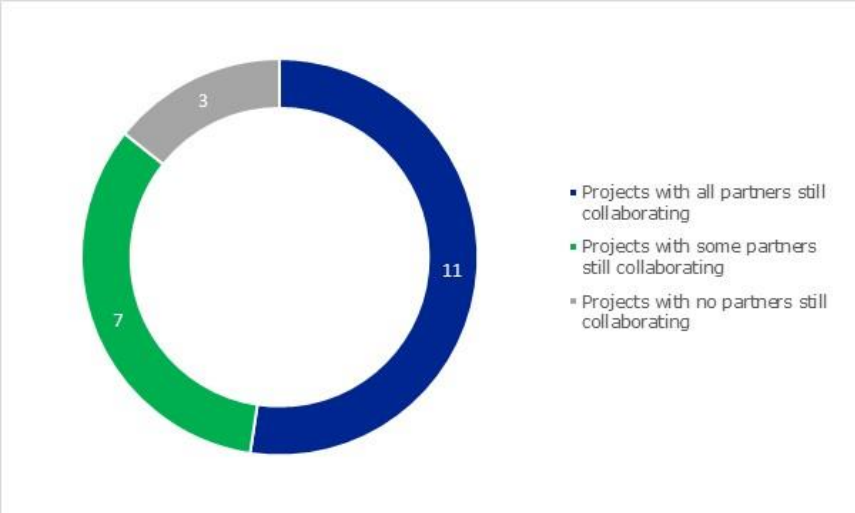
Figure 63: Continuity of project partners successful in market introduction in performing R&D activities



Source: In-depth interviews conducted within the study

The interviewees representing half of the projects with results introduced in the market (11) reported that all partners are still collaborating with each other on R&D activities either in order to further develop the project results, to commercialise them or for other R&D activities not related to Eurostars-1 programme. For 7 projects, the continuity of collaboration after project implementation was only between some of the project partners (i.e. partial collaboration) on the basis of carrying out R&D activities not related to the project; regarding the other 3 projects, the interviewees stated that there was no continuity in collaboration between partners after the completion of the project.

Figure 64: Continuity of collaboration between project partners with market introduction after the project implementation



Source: In-depth interviews conducted within the study

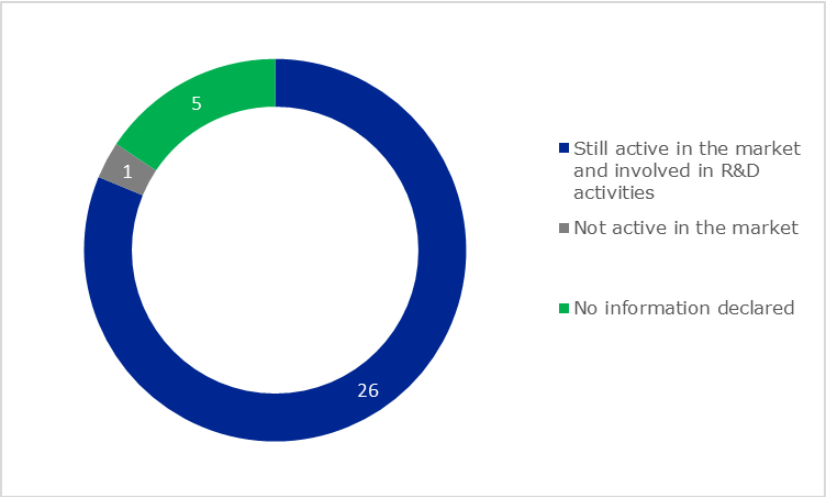
Not successful projects

Whilst the proposed products of the nine beneficiaries interviewed were not introduced to the market, two of the planned-to-be-developed products were not designed to enter the market by the end of the project period. They were developmental products that have a long R&D timeline and the projects were intended to take the product further to the next stage of development.

Similarly, a third beneficiary had designed a successful product that could be introduced to the market but it was decided to develop the product further in order to gain a greater market share with the technologically improved project.

The majority of the project partners with no market introduction are still active as business agents and involved in R&D activities. Regarding one project, one partner ceased the economic activity. Regarding the other four partners within the project, no information was offered by the interviewees.

Figure 65: Continuity of project partners in the market and in performing R&D activities

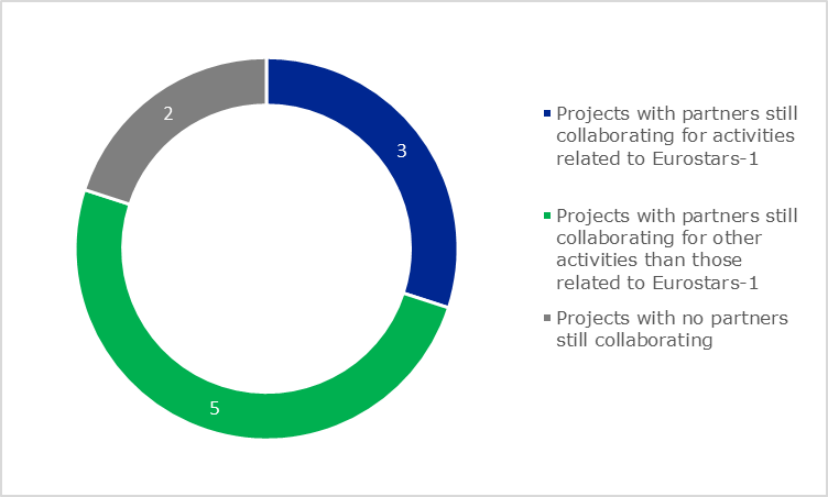


Source: In-depth interviews conducted within the study

The partners of four projects developed under Eurostars-1 are still collaborating: half of them on Eurostars-1 related activities, half of them on other R&D activities. The partners of one project are collaborating for both types of activities.

Five of the nine interviewed beneficiaries have continued to develop the project results internally, reducing their collaboration with the partners on the project results. This was due to the projects being at a stage of technological and product development that no longer required the partners' expertise/capacity. However, these collaborations were limited to a part of the product development by design at the beginning of the project.

Figure 66: Continuity of collaboration between project partners with no market introduction after the project implementation



Source: In-depth interviews conducted within the study

Fostering and hampering factors for market introduction based on interviews

Fostering factors

The analysis below is based on the responses of 21 interviewed beneficiaries who introduced the developed product/service/process in the market. The most frequently mentioned fostering factors are listed in the figure below.

Figure 67: Factors fostering the introduction in the market of project results

Fostering Factors	Details
R&D investment	The funds received under Eurostars-1 programme allowed different type of organisations to undertake activities with a high risk but strategic potential, especially SMEs, and to develop products/processes/services ready to face market challenges
Created partnerships	To partner with organisations having different capacities, knowledge, skills, access to networks and markets in order to develop different parts of a product/service/process, patent and commercialise them or the stand-alone product/service/process, proved to have increased the number of innovative results introduced in the market, a large number of beneficiaries mentioning knowledge and network benefits among the most significant ones obtained by participating in Eurostars-1 programme.
Clear division of rights and responsibilities	A well-established collaboration, each partner knowing from the beginning what is desired to be obtained and signing an exploitation agreement to make clear how each of them will benefit from the project results.
Reputation of partners	It is considered that project partners who have a good reputation in the R&D or academic field through continuous and successful developing of R&D projects, respectively publications, and being perceived as leaders in the field have higher chances to introduce their project results in the market.
Nature of the R&D activities: introduction of additional features	The market introduction and market acceptance of project results created by adding some features to already developed components or finalised products / services / processes are perceived as having a higher probability of success than of those results created under Eurostars-1 without starting from an intermediate form of the expected results.
Market knowledge and prior connection with potential customers	Knowing in details specific requirements potential customers might have is a great advantage as it will guide the design, implementation and commercialisation of project results needed in the market. Prior connection with potential customers could help in a continuous tailoring and fine-tuning of the developed products/services/processes aligned with the market needs and in entering the market more easily. Moreover, the targeting of a certain niche appears to increase the probability of successful commercialisation.
Marketing campaign and R&D activities developed simultaneously	A marketing campaign started long before the completion of products/services/processes development allows the partners to prepare the market, stimulate the demand and identify opportunities. Even if significant resources are needed to undertake simultaneously research and marketing activities, the timeframe of the latter is crucial for the success of the market introduction.
Intensity of project results marketing	A frequent and visible presence in the market through participation in various fairs, forums for promoting the project results was identified as fostering the market introduction and the subsequent profitability.
Support received from ESE	The support received from ESE regarding administrative and technical aspects of the project implementation has been identified as a facilitator of a smooth development of a project.
Successful research results	As research activities are the core of Eurostars-1 projects, the overall results of the projects depend on the accuracy, rigor, precision and knowledge employed in obtaining high quality research results based on which the actual design and development of products/services/processes is planned to take form.
Novelty of project results	Considering the main targeted technology areas (Biotech, Industrial, ICT, Environmental, etc.) and their pace of generating and accepting innovations, the novelty of results is perceived as an important strength of Eurostars-1 projects.
Low regulatory burden for market introduction	Being technology and research-intensive, Biotech, Industrial, ICT and Environmental areas are subject to various regulatory requirements regarding the permission of access in the market. For example, extensive testing has to be performed in order to ensure the project results have the quality standards required by the law and the potential to be accepted for market introduction. This implies the use of a significant amount of resources and may discourage different potentially interested stakeholders to participate in innovative projects. Considering this context, any simplification of regulatory requirements for market introduction might attract innovators to a certain economic sector or technology area.

Source: In-depth interviews conducted within the study

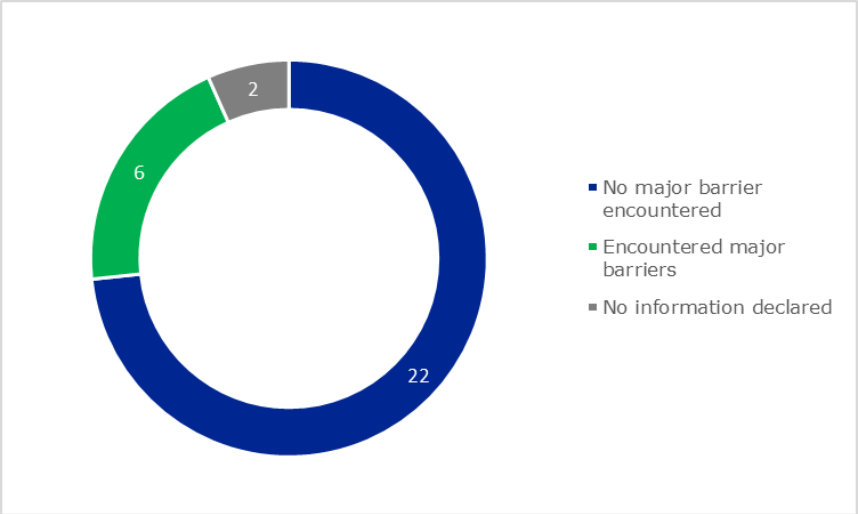
Hampering factors

The analysis below is based on the responses of both interviewed beneficiaries successful in introducing the project results in the market and of those who were not.

The majority of interviewed beneficiaries (73% of them) declared to have not encountered any major barrier in the application process.

Most of the beneficiaries that experienced difficulties in this phase (5 out of 6) succeeded to introduce the project results in the market.

Figure 68: Barriers encountered in the application process



Source: In-depth interviews conducted within the study

The difficulties reported (also by some of the interviewees that stated they did not encounter any major problems) are the ones listed in the figure below.

Figure 69: Barriers perceived in the application process

Perceived Barriers	Details
Political barriers	Two project partners have been affected by the moving of the former's National Project Coordinator (NPC) from one ministry to another, this change resulting in delays in starting up the project that was developed under Eurostars-1. As the mentioned NPC delayed the granting of funds, the NPC of the other partner conditioned the provision of funds to the reception of an assurance that the partner will also receive the funds. A letter confirming that funding will be granted to the partner had to be obtained from the NPC and provided to the other NPC in order to facilitate the access to national funds. (barrier encountered at national level, in Spain, respectively in Romania)
Financial barriers	Delayed payment of Eurostars-1 funding Insufficient national funds, as only part of the project partners received funds from their NPCs and the other not (barrier encountered in Germany)
Technical barriers	Disqualification of one project partner assessed to not have enough distance from its parent company in order to be considered an SME which affected the success of a first application
Administrative barriers	Request for redrafting the application prepared to be submitted to ESE, using a different template, made by the National Project Coordinator to Eurostars-1 applicants. This activity implied restructuring the application and it was perceived as difficult and time-consuming. (barrier encountered at national level, in Spain) The format of the application form impeded simultaneous editing.
Partner-related barriers	The lack of experience of some partners in applying for European funds caused difficulties in preparing the setup of the project and in identifying relevant information to be included in the application form. Finding the right partners for implementing a project was perceived as difficult

	and time-consuming. Different spoken languages and long physical distances caused difficulties in terms of initial collaboration of partners from different countries.

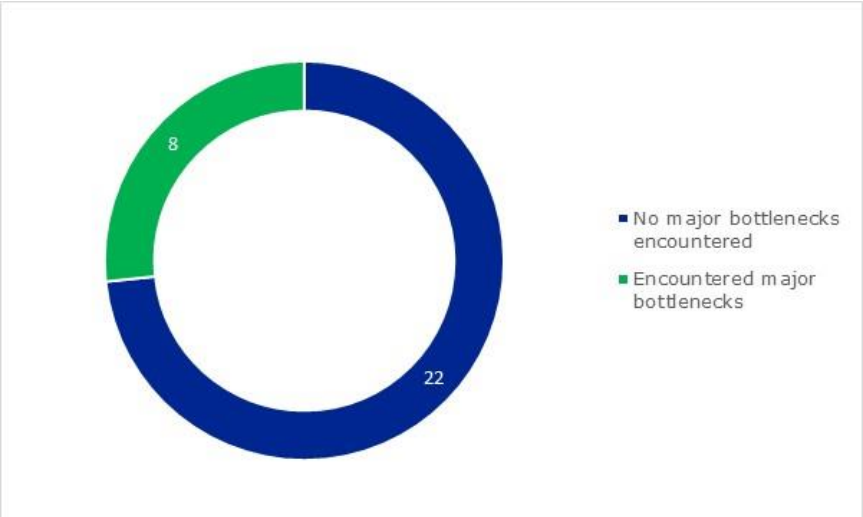
Source: In-depth interviews conducted within the study

Bottlenecks encountered during the project implementation

The analysis below is based on the responses in interviews of both beneficiaries successful in introducing the project results in the market and of those who were not.

Most of the interviewed beneficiaries (73% of them) reported that no problems were encountered during project implementation. Seven out of the eight beneficiaries who reported bottlenecks did not introduce their products in the market.

Figure 70: Bottlenecks encountered in the implementation phase



Source: In-depth interviews conducted within the study

Various bottlenecks have been identified by project partners during the implementation phase of the Eurostars-1 programme. They are briefly presented in the figure below.

Figure 71: Bottlenecks perceived in the implementation phase

Perceived Bottlenecks	Details
Project setup	The importance of clinical trials was not realised by some project partners from the design of the project, therefore the project introduction in the market was delayed as the trials were not realised during the contractual project duration
Project management	Difficulties in coordination of multiple project partners in order to determine the right decision in a reasonable timeframe causing delays and reduced efficiency in resources allocation
Financial bottlenecks	Insufficient funds (e.g. to perform not anticipated preclinical trials) Differences between national granting procedures across the EU Member States (problems encountered in Italy, Germany, Austria) caused delays in project implementation Protracting negotiations over funding, taking more than expected
Technical bottlenecks	Unexpected extensive period of testing was needed Necessary changes to applied technologies as a result of market signals
Administrative bottlenecks	Administrative burden created by the NPCs by requiring too detailed budgets and justification of expenditures
R&D results not as expected	Not the appropriate level of rigor expected from a prototype to be introduced in the market Not the expected results of preclinical trials, additional adjustments to medical devices and also additional knowledge being needed
Reduced internal support	Difficulties in pitching R&D investment to top management and showing that the downstream product will be differentiated and add

	value to the company

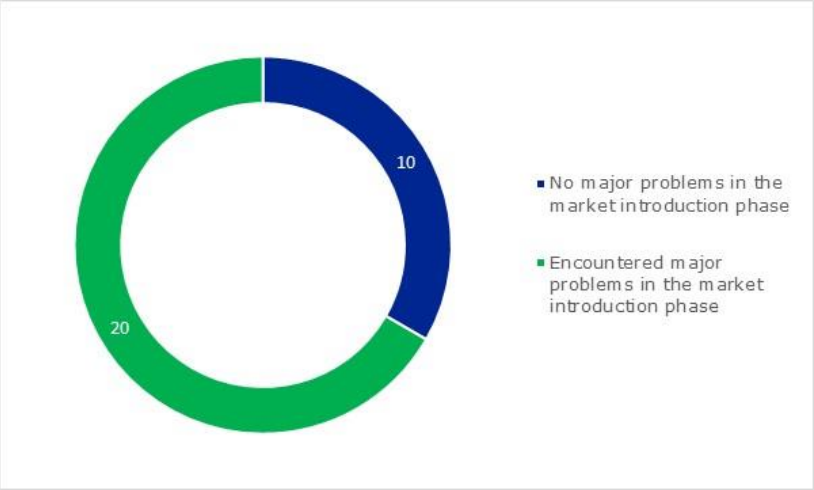
Source: In-depth interviews conducted within the study

Bottlenecks encountered in the introduction of the project results in the market

The analysis below is based on the responses of both interviewed beneficiaries successful in introducing the project results in the market and of those who did not.

Less than half of the interviewed beneficiaries (10 out of 30) reported no major problems were encountered in the market introduction phase. The figure below reflects the high number of beneficiaries indicating major problems in this last phase of the Eurostars-1 projects.

Figure 72: Problems encountered in the market introduction phase



Source: In-depth interviews conducted within the study

Some of the bottlenecks encountered in the implementation phase also affected the market introduction. They are listed in the figure below together with the problems impacting only the latter.

Figure 73: Problems perceived in the market introduction phase

Perceived Problems	Details
External problems	Changes in the regulatory landscape relevant for the product/service/process
	Additional investments needed from third parties in terms of infrastructure
Demand related (market/client)	Non-receptive European market
	Non-aligned pricing with market realities, the initial pricing being set too high
	Difficulty to convince potential clients of the added value of the product/service/process
Internal consortium problems	Changes in market strategy (e.g. changed focus on large corporations instead of small business)
	Project partner acquired by other company leading to de-prioritisation of the branch of the company the project was related to / Acquisition of the main partner during the project implementation
	No coordination of partners which caused delays in making decisions at the appropriate time
Level of product/service/process development not sufficient for commercialisation	R&D results/product development did not go as planned
	Not appropriate level of maturity of product/ service /process development
Objective and project setup	Too ambitious initial aim to bring products to market

	Insufficient funding foreseen

Source: In-depth interviews conducted within the study

Elements of Eurostars-1 to be improved according to beneficiaries

The analysis below is based on the responses of both interviewed beneficiaries successful in introducing the project results in the market and of those who did not.

The overall perception of interviewed beneficiaries regarding their participation in Eurostars-1 programme is positive.

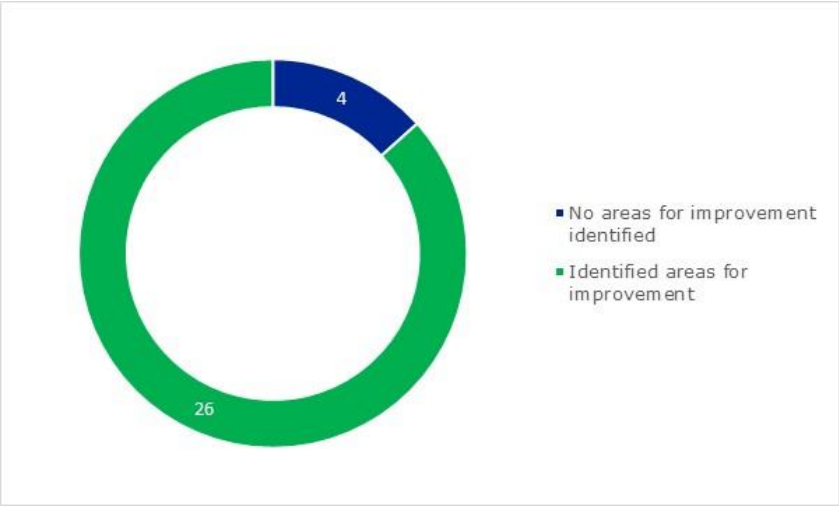
For most of them Eurostars-1 has been the only source of funding considered for financially supporting their R&D projects and also the appropriate framework that stimulated them to concentrate their efforts towards making possible the achievement of concrete results in a limited period of time.

Through Eurostars-1 the financed R&D projects become business priorities for their implementation teams.

However, most of the interviewed beneficiaries (26 out of 30) also identified a series of improvement areas of the programme. Their recommendations are included in the below figure.

The other 4 beneficiaries stated there is no significant room for improvement of the Eurostars-1 programme, as the programme was well run, adequately supported and monitored.

Figure 74: Identified areas of improvement of Eurostars-1 programme



Source: In-depth interviews conducted within the study

Figure 75: Recommendations for improving the Eurostars programme

Improvement Areas	Recommendations
Framework	**Introducing a dedicated programme** Given the long time needed until commercialising pharmaceutical products, the introduction of a Eurostars programme strictly for clinical trials would be useful.
Eligibility	**Extending the network of countries participating in Eurostars programme** Decision towards opening the programme to poorer countries outside the EU should be considered, as they could really benefit from such a scheme. **Reviewing the eligibility criteria** The creation of a consortium hosted by at least two different Eurostars countries should be encouraged and not required, leaving organisations to select the most appropriate project partners.
Information	**Improving online information on Eurostars programme** The following necessary updates were highlighted:

	• a more aesthetic website with a clearer information pathway; • more interactive and informative videos on the website, summarising key information for beneficiaries; • more key results within Google; • a forum with dedicated access for each Eurostars project; • inclusion of more detailed information on ongoing and finished projects; • inclusion of success stories of beneficiaries, as written in the final reports, on the website, to promote the successful projects. **Emphasising the requirement of market introduction in the programme** All materials (including policy documents) essentially or secondary aiming to inform about the Eurostars setup should reinforce the message that market introduction within a certain timeframe must be accomplished under the programme.
Application	**Simplifying the application process** The initiative could be oriented to eliminating the request of National Project Coordinators to redraft the application form submitted to ESE following the national rules (usually translation and restructuring of information being necessary). **Centralising the application process** Thereby, both approval and rejection of the same project by different National Project Coordinators would be avoided. **Improving the application form** Initially, the application form was available in the PDF format. The opening and navigating of this type of documents was very slow. Currently, on online application form can be filled in. However, the new format does not allow the applicants to make the form easier to navigate by introducing figures, graphs, pictures. Only text can be introduced. The Horizon 2020 application form could be taken as an example, the only limit referring to the number of pages. **Thoroughly assessing the financial viability of a project** Predicting the economic future of a product/service/process from the application phase would benefit both the programme and the project partners.
Funding	**Centralising the funding process** Instances of project partners not receiving their allocated funds despite a successful application, as a result of the national funds being depleted, could be in this manner avoided. **Allocating additional funds specifically for market introduction phase** As highlighted in a previous section, activities targeting the creation, identification and pursuit of market opportunities for commercialising the project results should be started in an early phase of the project. However, this would imply sustained efforts during the entire project implementation phase. Resources dedicated to this specific endeavour would be highly useful. **Increasing grants size** The need for additional funds has been invoked multiple times by beneficiaries, especially for performing unexpected tests and for the market introduction of developed products/services/process.
Assistance	**Reducing the repose time to Requests for Changes** As the project implementation is time-conditioned, each delay has an impact on the overall performance of the project. As requests for changes imply no further action until receiving the answer from ESE regarding their approval or rejection, the response time should be as reduced as possible. In some cases the current one is perceived as too long. **Increasing the assistance offered by ESE in project coordination** An increased contact between programme staff and beneficiaries, including meetings at the beginning and middle stages of the project, would be beneficial to project implementation. The one-way communication with ESE could be improved by exchanging information and advice throughout the different stages of a project. **Increasing the assistance offered by ESE in marketing activities** To offer support in performing market analysis and showcasing products to potential customers would be a salutary initiative. **Increasing the assistance offered by ESE in market introduction phase** Support could be offered to beneficiaries in finding partners for commercialising the project results.
Monitoring	**Increasing the two-way communication during monitoring phase**

	Feedback on milestone reports could be improved, increased and include a site visit.
Reporting	**Centralising the reporting process** Appointing only one coordinating institution would avoid parallel reporting and reduce administrative burden. **Deciding on one reporting language** All project reports should be required to be produced in English and partners should not be obliged to submit additional reports in their national language.
Collaboration	**Facilitating interactions of beneficiaries across different projects** A specific framework for stimulating and allowing beneficiaries of different projects to communicate in order to exchange information and share knowledge is needed.
Duration	**Increasing the length of the projects** As Eurostars projects are research and technology oriented, extensive testing is necessary for ensuring the market readiness and further commercialisation success of the developed product/service/process. Moreover, as innovative projects, they are prone to various challenges. An increase of the project length would allow partners to perform more rigorously R&D activities and face their unexpected results and subsequent necessary adjustments without being under severe time pressure.

Source: In-depth interviews conducted within the study

Complementarities with other Horizon 2020 initiatives

Observed complementarities based on interviews

Beneficiary participation in other Horizon 2020 initiatives and perception of the elements of other Horizon 2020 initiatives that can be transferred to Eurostars-1

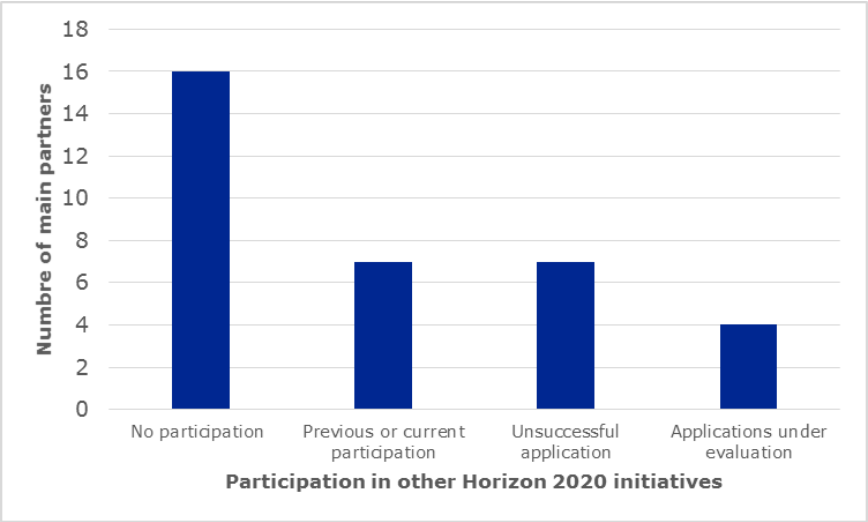
The analysis below is based on the responses of both interviewed beneficiaries successful in introducing the project results in the market and of those who were not.

- As highlighted in the figure below, the majority of interviewed beneficiaries (16 out of 30) did not participate in other Horizon 2020 initiatives.
- A significant part of the consulted main partners (7 out of 30) declared previous and current participation in other Horizon 2020 initiatives including: SME Instrument Phase 1 and Phase 2, collaborative projects under the Societal Challenges pillar (Competitive Low- Carbon Energy call) and Marie Skłodowska-Curie actions.
- Several beneficiaries (4 out of 30) have applied for further Horizon 2020 initiatives and are currently awaiting the results of their applications.
- Seven beneficiaries also applied for funding within Horizon 2020 initiatives, however their applications were rejected. Two of them applied for *Fast Track to Innovation* pilot[22], implemented across the Horizon 2020 priority Societal Challenges and the specific objective *Leadership in Enabling and Industrial Technologies (LEITs).*
- Despite not participating in Horizon 2020 initiatives, 6 beneficiaries declared to have taken part in the other EU research funding programmes, namely in the following three framework programmes: FP5, FP6, FP7[23]. Multiple participation in Eurostars-1 programme has been also reported.

[22] For more information regarding the Fast Track to Innovation pilot, please visit: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fast-track-innovation-pilot

[23] Fifth Framework programme of the European Community for Research, Technological Development and Demonstration Activities for 1998-2002 (FP5), European Union Framework Programme for Research and Technological Development for 2002-2006 (FP6), European Commission's Research and Innovation funding programmes for 2007-2013 (FP7)

Figure 76: Participation in other Horizon 2020 initiatives



Source: In-depth interviews conducted within the study

Parallel between Eurostars-1 programme and other Horizon 2020 initiatives

The participation in other Horizon 2020 initiatives allowed several beneficiaries to make a comparison with the experience within Eurostars-1. Both strengths and areas of improvement of Eurostars-1 have been identified, the former having a higher weight in the beneficiaries' perception.

- In terms of **strengths**, Eurostars is perceived as:
  - not restrictive concerning the technology area targeted by projects in order to be eligible; a project can address any technology area and type of products/ services/ technologies;
  - having a more simple application process.
- The highlighted **area of improvement** refers to the application form, currently difficult to navigate as only text; figures, graphs and pictures can be included.

Differences in perception emerged concerning the market orientation of the programme. Part of the beneficiaries consider Eurostars as more market oriented and well-tailored for organisations with commercial aims than other Horizon 2020 initiatives. Another part of the consulted businesses experienced a better link to planned targets and the business plan within other Horizon 2020 initiatives, associating Eurostars with a more scientific orientation.

Beneficiaries' overall assessment of the Eurostars-1 programme

The analysis below is based on the responses of both interviewed beneficiaries successful in introducing the project results in the market and of those who were not.

The participation in Eurostars-2 and other similar R&D programmes is perceived as a positive and desired experience by the majority of interviewed beneficiaries, as reflected in the figure below.

Together with their intention to participate in Eurostars-2 and/or similar R&D programmes, the beneficiaries discussed the main factors that encourage them to pursue these opportunities and several concerns which encourage them to better assess their costs and benefits.

Factors stimulating the participation in Eurostars-2:

- access to significant financial support for early stage R&D projects allowing strategic investments to be made;
- well-run programme with a well-defined timeframe and minimal administrative requirements;
- possibility of cross-border cooperation governed by clear rules set within the Consortium Agreement.

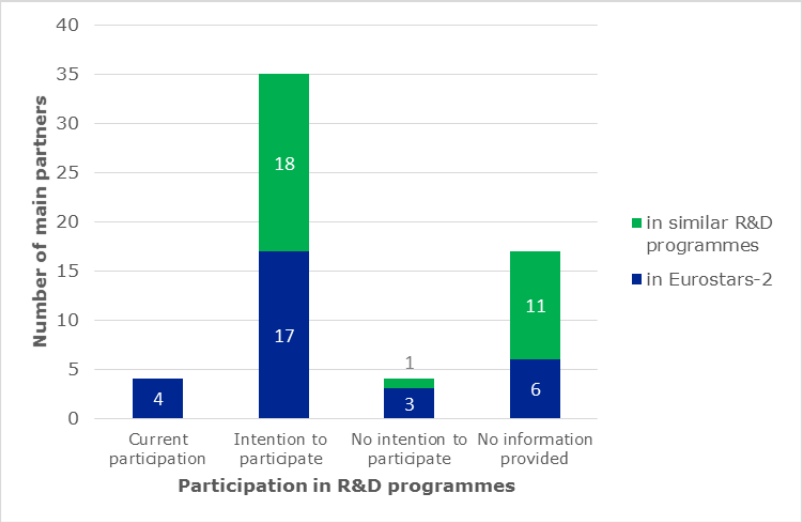
Concerns regarding further participation in R&D programmes (including Eurostars-2):

- significant time and financial investment needed to develop a proposal whilst the probability for the project to be awarded financial support is reduced;
- the impact the UK's withdrawal from the European Union will have on future access to funding programmes for UK businesses.

In this context, several respondents reported a desire to focus on internal development in the immediate term before seeking additional funding.

On the other hand, five main partners already took the decision to apply for R&D funds under Eurostars-2, four of them also declared they are currently participating in the programme.

Figure 77: Participation in Eurostars-2 and similar R&D programmes



Source: In-depth interviews conducted within the study

No interest in participating in Eurostars-2 and/or similar R&D programmes have been also reported:

- One main partner declared no interest in participating in the Eurostars-2 programme. The main reason supporting this decision is related to the evaluation criteria used in the application process. More precisely, the interviewee perceived a higher focus put on the quality of drafting the application than on the results expected to be generated by the envisioned product/service/process. Consequently, the probability to be awarded a grant is perceived as reduced.
- Another two beneficiaries declared no short-term intention to participate in R&D programmes: one of them as the SME is focused on introducing in the market the results of the Eurostars-1 project, the other one as a result of being acquired by another company and not being anymore qualitied as an SME.

Two main partners did not provide information on the topic.

CONCLUSIONS AND RECOMMENDATIONS

The study had as main objective to evaluate the **performance** and to assess the **impact** of the **Eurostars-1 Joint Programme** in terms of new products, processes or services introduced into the market two years after the project completion.

The scope of the study consisted in the 400 Eurostars-1 ended projects funded during 2008-2010 period (i.e. first five cut-offs).

Three main tasks have been undertaken within the framework of the study in order to achieve the project objective, namely: desk research, interviews with project beneficiaries and results analysis.

Desk research was mainly aimed at analysing:

- design and contents of FiR and MIR as well as adequacy of the required contents in terms of programme monitoring;
- available data concerning Eurostars-1 implemented projects (mainly from Eurostars database).

Two series of interviews have been conducted in a second phase of the project. They were used to validate findings of the desk research and to examine other relevant aspects for the study, as follows:

- **Short-interviews** with all projects' main partner – investigated if and when the development and commercialisation of planned products/processes/services took place;
- **In-depth interviews** with main partners from a representative sample of 30 projects – allowed the Research Team to collect detailed information regarding: added value of the participation in Eurostars-1, success and hampering factors for achieving the project results, potential areas of improvement.

The last part of the study, the results analysis, contributed to the achievement of the projects' main objective in the following way:

- Providing **descriptive statistics at project and beneficiary level** (i.e. distribution of projects/beneficiaries and success rates by cut-off, size and type of partnership, geographical distribution of beneficiaries);
- Evaluating performance and impacts of the projects for which complete data was available. The **performance** was evaluated at project level in terms of:
  - Development of expected products/services/processes;
  - Commercialisation of the project results.

  Regarding the **impacts**, a two-folded analysis was undertaken, at beneficiary and project level. The following dimensions were assessed at beneficiary level:
  - company growth (in terms of annual turnover, annual investment in R&D activities and annual earning);
  - jobs created;
  - profitability of the investment.

The other part of the analysis, concentrated on the project perspective, involved 30 selected projects and investigated the results of the in-depth interviews.

The main conclusions revealed by the performed analyses are presented below, following the sequence of the undertaken tasks:

C1. The data collection mechanism (i.e. design and content of FiR and MIR) in place for the first five cut-offs of the Eurostars-1 significantly limits the monitoring and the measurement of the performance and impacts attributable to the Eurostars projects as:

- FiR and MIR contains information related to the **evolution of the overall financial situation** of the beneficiaries. However this is **not directly attributable to the** participation in **Eurostars**;
- the design of the FiR and MIR did not differentiate between types of beneficiaries in order to adapt the data collected to the type of beneficiary (i.e. currently universities have to declare the turnover achieved);
- the **data** collected from beneficiaries and **included in FiR and MIR** did not allow the identification and monitoring of individual products/services/processes that were planned

and that have been developed/planned as well as the link between granted patent and products/services/processes cannot be deducted;

C2. **Reliability of data included in FiR and MIR is rather limited**. All information are collected on a declarative base and reliability and coherence of data is not ensured by an effective validation process:

- the method and type of documents used to collect and integrate data and information provided by the beneficiaries in FiRs and MIRs might have caused some inconsistencies and errors in the aggregated source, the Eurostars database (i.e. not updated information, contradictory data included in different sections of the database), which could have been determined among others by: the use of different units of measurement in reporting quantitative data, different understanding on the requested information, typing mistakes in transferring data from the original document submitted by the beneficiary in the Eurostars database;
- The Eurostars database contains information that appears non-consistent with data included in other databases (e.g. Amadeus). In 70% of the cases, we found deviations higher than 10% for the declared "Turnover" and for the declared "Number of Employees".
- discrepancies appeared during the cross-checks performed by the Research Team between different beneficiaries' declarations (i.e. in some cases the declared end date and first commercialisation date corresponding to the Eurostars-1 projects differed between the Eurostars database and the phone interviews conducted within the study);

C3. **The submission of FiR and MIR and the completeness of data is not granted**: only 21.5% of beneficiaries (i.e. 258 out of 1,197) have submitted completed reports, this allowed the analysis only of around 50% (i.e. 182 out of 370) of the completed projects. This might indicate the reporting activity was perceived as optional by some beneficiaries.

C4. Due to the reasons mentioned above (availability, reliability and usefulness of data), measuring the impacts of completed Eurostars project is currently not possible in a comprehensive manner**. As a result, this study was based on a sample of 182 projects for which completed information was available from the main beneficiaries**. Considering the projects for which data are available, most of the analysed projects (160 out of 182, representing 88% of them) were successful in **achieving project results** (i.e. developing products/ services/ processes within the project implementation period); moreover, a large part of them (131 out of 160, representing 82% of them) succeeded in **commercialising the project results**.

C5. Consortia that managed the projects that successfully introduced a product/service/process in the market included SMEs that:

- have higher annual turnover and have benefited from a higher growth of the turnover over the six-year period considered (including the implementation and post-implementation phases);
- have a lower annual investment in R&D as well as faced a lower increase of the investment in R&D over the six years;
- have higher annual earnings and they benefited from a higher increase in earnings (5% compared to -4%), both in absolute value as well as in relative terms (i.e. as % of the turnover).
- have higher number of employees and created on average three new jobs after the project implementation. However, there is no difference concerning the percentage of employees involved in R&D activities; in general SMEs that participated in Eurostars-1 projects allocated 42% of their FTEs to R&D activities with no significant variation before/after the completion of project activities.

C6. **Projects for which data are available showed a limited *profitability of the investment* undertaken**. Data available indicated that on average a SME invested more than € 1.2 million and benefited from an additional turnover equal to € 682 thousand (i.e. less than 50% of the overall investment).

C7. All interviewed beneficiaries consider the participation in the Eurostars-1 programme a positive experience and highlighted benefits in terms of knowledge, network, reputation, competitive position and internationalisation, as revealed by the in-depth analysis of 30 selected projects.

C8. From the interviews with beneficiaries it emerged that the following factors foster the commercialisation of project results: access to funding for projects with a high-risk and strategic potential, well-established partnerships with a clear division of rights and responsibilities, initial maturity of the planned products/services/processes, market knowledge and strong strategy, support offered by ESE.

C9. Some **barriers** existed in different phases of the Eurostars-1 programme, as perceived by the beneficiaries, them mainly referring to the following:

- **application phase**: political (i.e. at National Project Coordinators level), financial (i.a. insufficient national funds), technical (i.a. disqualification of one project partner), administrative (i.a. different format of the application form applied at European and national level) and partner-related barriers (i.a. lack of experience in applying for European funds);
- **project implementation**: barriers regarding the project setup and management (i.e. importance given to different project activities, difficulties in coordination multiple partners), financial, technical and administrative bottlenecks (i.a. differences between national granting procedures across EU Member States, unexpected extensive period of testing, administrative burden existing at national level), R&D results not as expected, reduced support within the participating organisations;
- **commercialisation phase**: external (i.a. changes in the regulatory landscape), demand-related (i.a. non-receptive European market), internal consortium (i.a. changes in the market strategy), market readiness of the project results, objective and project setup problems (i.a. insufficient funding foreseen).

The analysis was also aimed at providing concrete recommendations and any other useful comments on how to better implement the Eurostars-2 programme. Consequently, the following **recommendations** could be taken into account:

R1. Improving the data collection mechanism by:

- restructuring the project reporting questionnaires in order to collect information that would reflect the performance and impacts of the participation in the Eurostars programme and not only the overall economic performance of the beneficiaries and tailoring the requested information per type of beneficiary (i.a. requesting specific information in order to clearly understand if the commercialisation took place or is expected to, requesting specific information about the gross earnings generated by the commercialisation of the project results, not asking universities about turnover generated, inquire about types of investments undertaken);
- creating a system of associating unique IDs to each planned product /service /process in order to be possible to identify which of them have been developed and commercialised, which intellectual property rights are in place for each of them (i.a. granted patents);
- linking the reimbursement of part of the granted funds to the submission of the projects reports (FiR and MIR) in order to increase the number and completeness of submitted FiRs;
- using different IT tools that would allow to restrict the completion of FiR and MIR to one common predefined format for all beneficiaries and to automatically centralise the information declared by all beneficiaries;

R2. Improving the selection mechanism in order to financially support projects having the greatest market potential in order to reduce the number of withdrawn projects and increase the number of successful projects in terms of commercialisation of products/processes/services. At project selection stage, maturity and potentiality of the product/service to go to market within two years, according to thematic domain and the market targeted, could be included as a selection criteria or could be judged through a market readiness **assessment.**

R3. Making the financing of projects (or at least a percentage) **dependent on introduction to market** in order to incentivise beneficiaries to commercialise the project results and to dis-incentivise to withdraw from the project.

R4. Increasing the rigorousness of the monitoring mechanism by:

- checking the data and information declared by the beneficiaries through various non-declarative methods (i.a. by cross-checking the declared financial data with other sources like Amadeus or financial situations submitted to national authorities, requesting supporting documents that could justify the declared data and information, by performing random audits at least for the qualification criteria);
- asking clarifications for the observed outliers;
- developing a continuous communication with Eurostars-1 beneficiaries and incentivising them to actively participate in the monitoring and reporting phase;
- verifying and updating the Eurostars database as the FiR and MIR are received in order to permanently have included in the database the last information and data available;

ANNEX 1: BIBLIOGRAPHY

Legislative acts

- Consolidated version of the Treaty on the functioning of the European Union, 2012, OJ C 326;
- EUROSTARS Programme Document endorsed by the HLG in Como on 19 October 2006 and revised according HLG meeting in Venice on 18-19 April 2007;
- European Commission, "Horizon 2020 – Work Programme", July 2014;
- Eurostars Joint Programme Delegation Agreement (30-CE-0270684/00-14) of 19.06.2009 between the
- European Commission and the EUREKA Secretariat AISBL;
- European Council Conclusions, 17 June 2010 (EUCO 13/1/10);
- Decision No 743/2008/EC of the European Parliament and of the Council of 9 July 2008 on the Community's participation in a research and development programme undertaken by several Member States aimed at supporting research and development performing small and medium-sized enterprises, OJ L 201;
- Decision No 553/2014/EU of the European Parliament and of the Council of 15 May 2014 on the participation of the Union in a Research and Development Programme jointly undertaken by several Member States aimed at supporting research and development performing small and medium-sized enterprises, OJ L 169;
- Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration Activities (2007-2013), OJ L 412;
- Decision C (2014) 4995 of the European Commission, "Horizon 2020 Work Programme 2014 – 201"5, 22 July 2014;
- Decision No 743/2008/EC of the European Parliament and of the Council of 9 July 2008 on the Community's participation in a research and development programme undertaken by several Member States aimed at supporting research and development performing small and medium-sized enterprises (OJ L 201, 30.7.2008, p. 58);
- Council Decision 2013/743/EU of 3 December 2013 establishing the specific programme implementing Horizon 2020 — the Framework Programme for Research and Innovation (2014-2020) and repealing Decisions 2006/971/EC, 2006/972/EC, 2006/973/EC, 2006/974/EC and 2006/975/EC (OJ L 347, 20.12.2013, p. 965);
- Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (notified under document number C(2003) 1422);
- Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 — the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC (OJ L 347, 20.12.2013, p. 104);
- Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 (OJ L 298, 26.10.2012, p. 1);
- European Commission, "Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on the Response to the Reports of the Expert Groups on the Ex Post Evaluation of the Sixth Framework Programmes", in: European Commission (Ed.), European Commission communications, Brussels, 2009;

Reports

- EUREKA, "A cornerstone of the European research and innovation area", Brussels, 21 March 2006;
- EUREKA Secretariat, "Two decades of support for European Innovation", 20th Anniversary Report, September 2005;
- Laperrouze, Anne et. al., "EUROSTARS Programme Interim Evaluation", Final Report, December 2010;

- Makarow, Marja et. al., "Final Evaluation of the EUROSTARS Joint Programme", European Commission, November 2014;
- European Commission, "Report from the Commission to the European Parliament and the Council, Interim Evaluation of the EUROSTARS Joint Programme", Brussels, April 2011;
- EUROSTARS Impact Report, June 2012;
- European Commission, "Report from the Commission to the European Parliament and the Council: Final evaluation of the EUROSTARS Joint Programme (2008-2013)", Brussels, September 2015;
- European Commission, "Lisbon Strategy evaluation document", Brussels, 2010;
- European Commission, DG Research, "Development of Technology Platforms", Status Report, p4, February 2005;
- European Commission, Commission Staff Working Document, "Executive Summary of the Impact Assessment" accompanying the document "Proposal for a decision of the European Parliament and of the Council", July 2013, Brussels;
- Marimon, R, "Evaluation of the Effectiveness of the New Instruments of Framework Programme VI", High-level expert panel reports. Barcelona: European Commission FP VI, 2004;
- Council of the European Union, "Interim Evaluation of the EUROSTARS Joint Programme - Council conclusions", Brussels, June 2011;

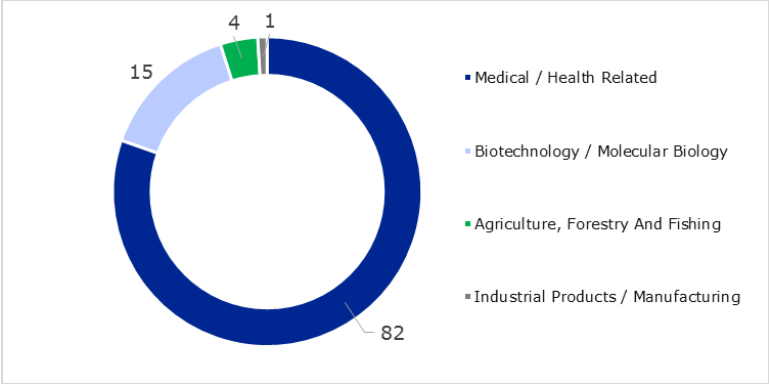
Studies, articles

- European Council, "Presidency Conclusions", Lisbon, 23 and 24 March 2000;
- "When Innovation means Business", EUROSTARS Review, 2011, available on *https://www.EUROSTARS-EUREKA.eu/sites/default/files/publications/EUROSTARS-review-2011.pdf*, accessed on 13.01.2016;
- European Commission, "The EU Framework Programme for Research and Innovation: HORIZON 2020. EU Research and Innovation: Tackling Societal Challenges", 2013;
- European Commission, "FP7: Tomorrow's answers start today", 2006;
- Maria Ruiz Novales, "The EU-EUREKA joint funding programme for R&D performing SMEs", available on *http://www.interface.ulg.ac.be/docs/2111_EUREKA_EUROSTARS_Programme_Maria_Ruiz_Novales.pdf*, accessed on 13.01.2016;
- EUREKA Secretariat, "EUROSTARS for SMEs", Brussels, May 2014;
- Roger-Dalbert, Isoline, EUREKA Secretariat, "EUREKA: An initiative for supporting industrial competition through innovation";
- Bozeman, Barry and Julia Melkers eds., "Evaluating R&D Impacts: Methods and Practice", Springer Science Business Media LLC, New York, 1993; The book tackles a critical issue in research and development (R&D) management, the structure and use of evaluative efforts for R&D programmes. In times of fiscal constraint, more emphasis is placed on accountability and programme effectiveness and programme evaluation is a management tool that can be used to adjust programme strategies for enhanced effectiveness. The book has three primary objectives: to provide an overview and description of the major methodologies involved in evaluating R&D, to offer guidelines and recommendations on the use of these methods and to relate practical experiences of individuals in several different organizations and allow those individuals to offer their perspectives on specific topics relating to R&D evaluation;
- Autio, E. et. al., "First- and Second-Order Additionality in Collaborative R&D Programmes", Research Policy, 37(1): 59-76, 2008; The paper makes a distinction between firm-level learning effects that result from "first-order" and "second-order" additionalities in innovation policy interventions. By analysing data from collaborative R&D programs in Finland, the authors show that enhancing identification with a community of practice among R&D programme participants (proxy for second-order additionality) enhances firm-level learning outcomes beyond those resulting from direct R&D subsidy (proxy for first-order additionality);
- Draucker, C. B. et. al., "Theoretical Sampling and Category Development in Grounded Theory", Vol. 17: 1137-1148, 2007; The article tackles two issues relative to theoretical sampling in an ongoing grounded theory study. Theoretical sampling is a hallmark of grounded theory methodology and there is little guidance available for researchers on how to implement this process and few published grounded theory studies describe how theoretical sampling is implemented in response to emergent findings;

- Eisenhardt, K. M., "Building Theories from Case-Study Research", Academy of Management Review, 14(4): 532-550., 1989; The paper describes the process of inducting theory using case studies-from specifying the research questions to reaching closure. While some features of the process, such as problem definition and construct validation, are similar to hypothesis-testing research, others, such as within case analysis and replication logic, are unique to the inductive, case-oriented process. The paper describes building theories from case studies;
- Eisenhardt, K. M., "Theory Building from Cases: Opportunities and Challenges", The Academy of Management Journal, 50(1): 25, 2007; The article focuses on the related research strategy of theory building from cases, particularly multiple cases. Scholars have used case studies to develop theory about topics as diverse as group processes, internal organization and strategy. Theory building from case studies is considered to be one of the best of the bridges from rich qualitative evidence to mainstream deductive research;
- Guy, K. et. al., "The Science Park Evaluation Handbook", Brussels: Technovation, 1996.; The handbook tackles the topic of high-tech development that has been recognized by many developed and developing countries as a strategic instrument to enhance and sustain their competitiveness in the global economic network. The major objectives of the research are to advance the knowledge of the role of spatial planning in the process of high-tech development and to establish an analytical framework that helps reveal the major institutional factors that shape spatial planning mechanisms for dealing with the spatial issues of high-tech development in different places;
- Miles, M. B. and Huberman, A. M, "Qualitative Data Analysis: An Expanded Sourcebook", Thousand Oaks, CA: Sage, 1994; The book addresses critical needs faced by researchers in all fields of the human sciences. The authors explore the method to draw valid meaning from qualitative data and which ones of these methods can be used, that are practical, communicable and non-self-deluding (in order to get the knowledge that people can rely on);
- Potter, C. 2006. "Program Evaluation", in: M. Terre Blanche & K. Durrheim & D. Painter (Eds.), "Research in Practice: Applied Methods for the Social Sciences", 2 ed.: 410-428. Cape Town: UCT Press, 2006; This book intends to reflect critically on the value of ostensibly dull things such as "research design", "programme evaluation" or "multivariate data analysis". Over the past few decades there has been a major shift in research methodology – away from technicist to more contextual and pragmatic approaches. This is reflected in a greater emphasis on interdisciplinary and applied research skills, the concurrent use of qualitative and quantitative methods, and a more sophisticated understanding of the epistemological grounding of research. The book incorporates these new trends while also providing comprehensive coverage of the full range of established research approaches and techniques;
- Shadish, W. R., et. al., "Experimental and Quasi-Experimental Designs for Generalized Causal Inference", Boston: Houghton Mifflin Company, 2002; The paper tackles the topic of experiments and causation, tracing the importance of experiments for historians and philosophers in the 16th and 17th century. The analysis concentrates on the improvements that have revolutionised field experimentation in the past few decades, which allow the creation of considerably improved field experiments, compared with the ones that were made 40 years before;
- Samardžija, Višnja and Hrvoje Butković ed., "From the Lisbon Strategy to Europe 2020", Zagreb 2010;This book intends to set up a basic framework in which it offers a chronological analysis of the development within the EU Lisbon Strategy and the main challenges in its implementation. It also studies the principal questions related to the continuation of reforms within Europe 2020, the successor of EU Lisbon Strategy. The method behind this book was to bring together knowledge on setting priorities and objectives. The book's demonstration is that the Lisbon Strategy represented a pioneer and experimental process that has been adapted several times, its last "great adaptation" being the new Europe 2020 strategy;

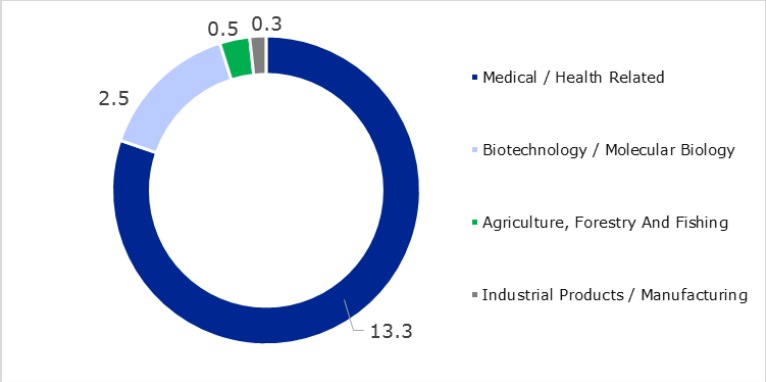
ANNEX 2 : NUMBER OF PROJECTS AND EU COMMITMENT BY PRIMARY MARKET

Figure 78: Number of projects (Biotech)



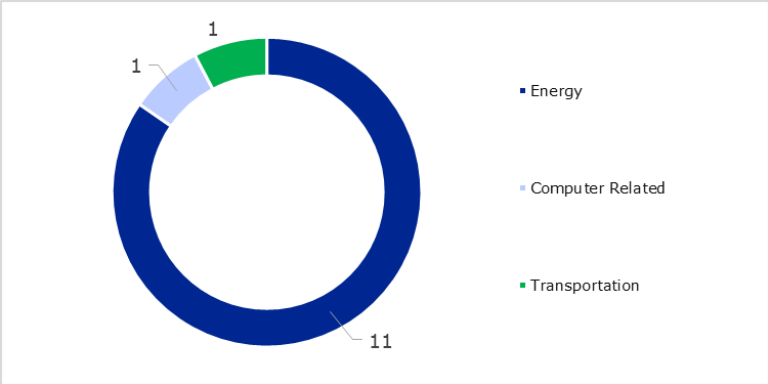
Source: Eurostars Database (2016)

Figure 79: EU commitment (Biotech)



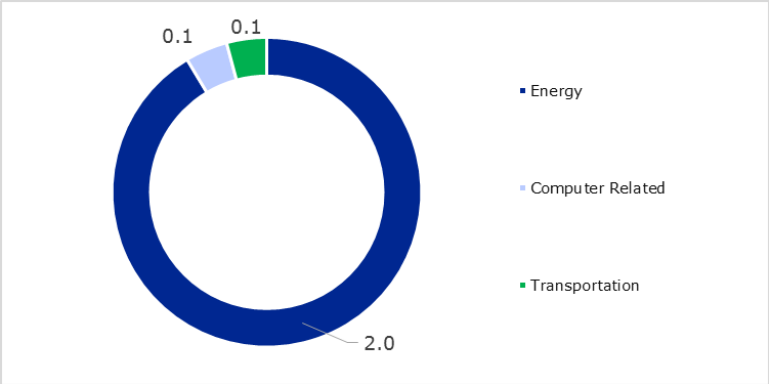
Source: Eurostars Database (2016)

Figure 80: Number of projects (Energy)



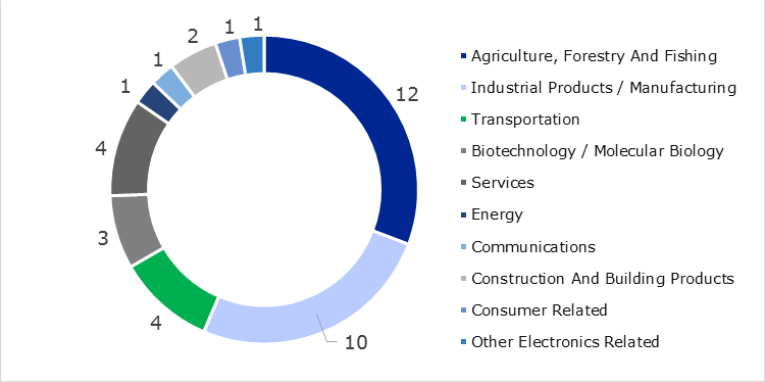
Source: Eurostars Database (2016)

Figure 81: EU commitment (Energy)



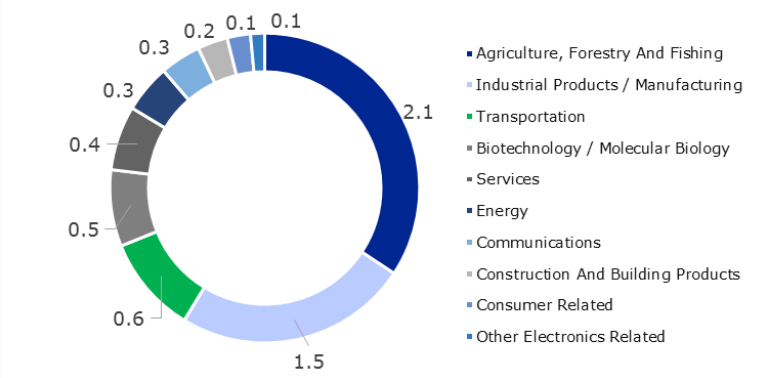
Source: Eurostars Database (2016)

Figure 82: Number of projects (Environment)



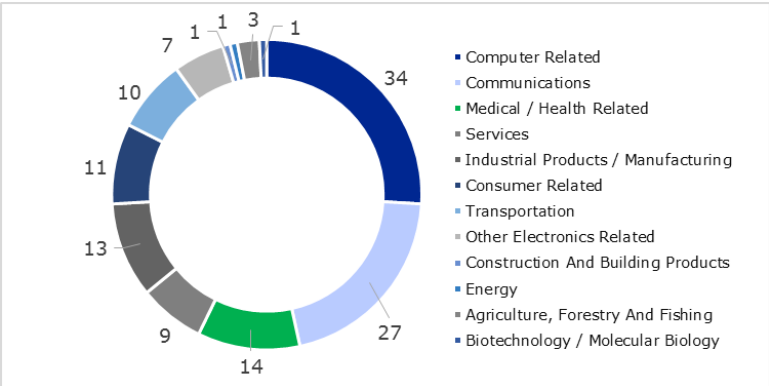
Source: Eurostars Database (2016)

Figure 83: EU commitment (Environment)



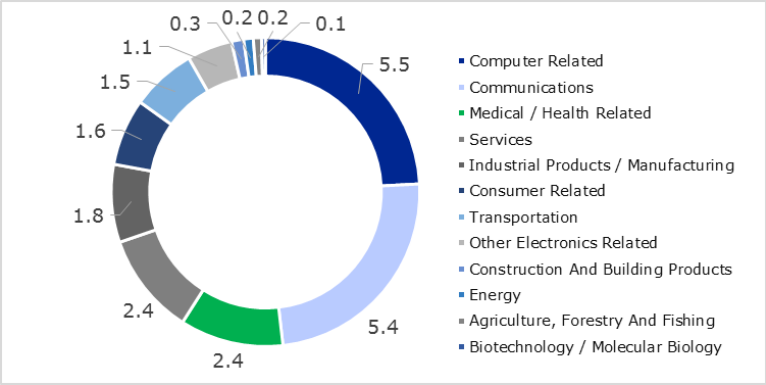
Source: Eurostars Database (2016)

Figure 84: Number of projects (ICT)



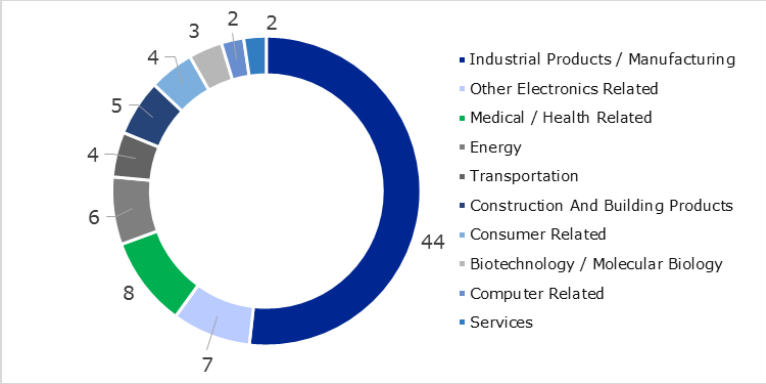
Source: Eurostars Database (2016)

Figure 85: EU commitment (ICT)



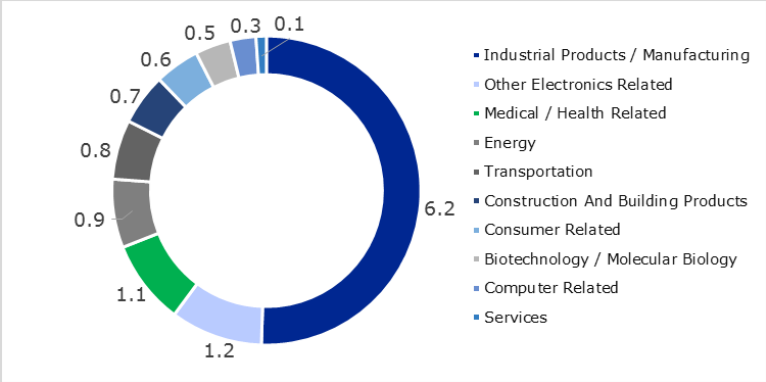
Source: Eurostars Database (2016)

Figure 86: Number of projects (Industrial)



Source: Eurostars Database (2016)

Figure 87: EU commitment (Industrial)



Source: Eurostars Database (2016)

ANNEX 3: INTERVIEWS WITH MAIN PARTNERS

Methodology

The short interviews were used to validate or update the information included in the Eurostars Database, with regards to (1) end-date of the Eurostars projects and (2) date of market introduction of developed products / processes / services.

All projects implemented during the first 5 calls, in total 370 projects, were under the scope of this analysis.

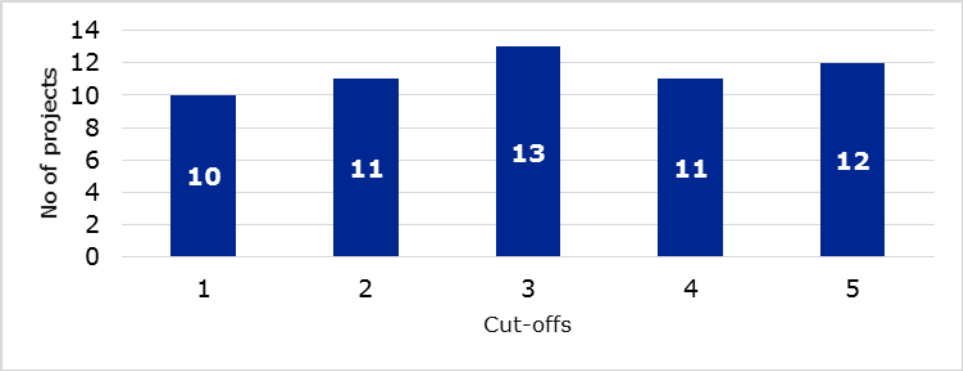
Response rate

During the period November – December 2016, we have contacted 370 main partners and managed to conduct short interviews for **57 projects**.

Respondent profile

The respondents pertain to all 5 cut-offs, as illustrated in the below figure.

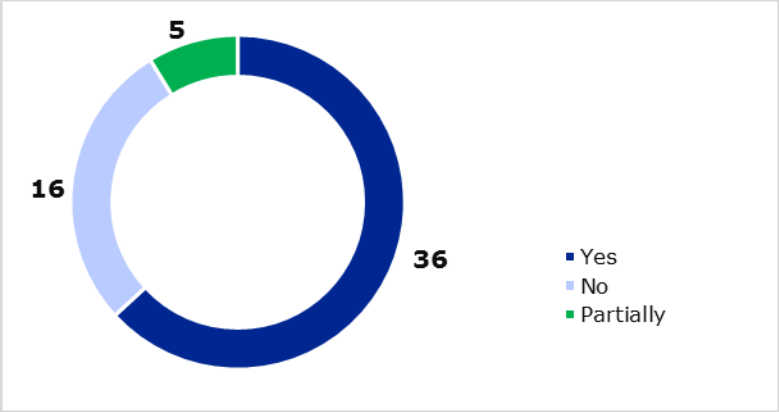
Figure 88: Distribution of projects by cut-off



Source: Eurostars Database (2016)

Most of them have introduced all planned products (63%) or part of the planned products (9%); however, there are also unsuccessful projects from the point of view of market introduction (28%).

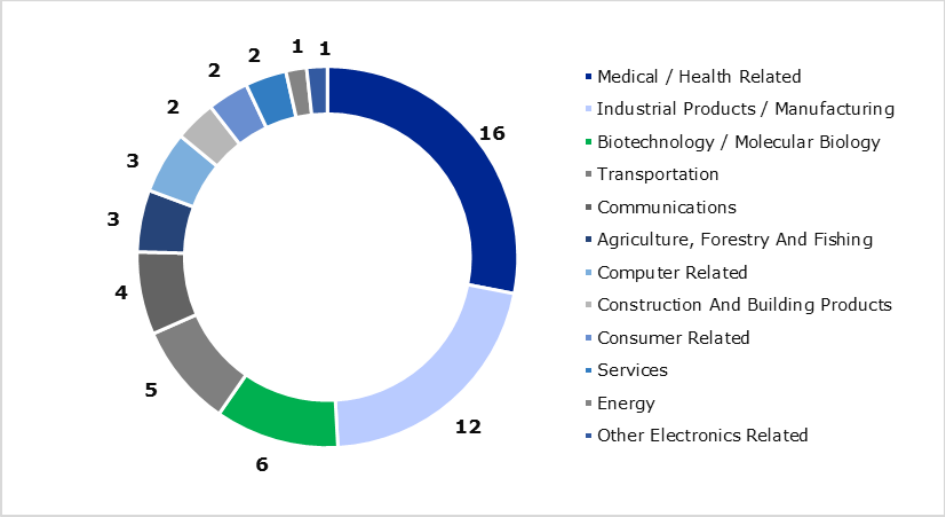
Figure 89: Distribution by market introduction



Source: Short Interviews (2016)

The tech areas addressed by the projects are ICT (30%), Industrial (30%) and Biotech (26%), followed by Environment (12%) and Energy (6%).

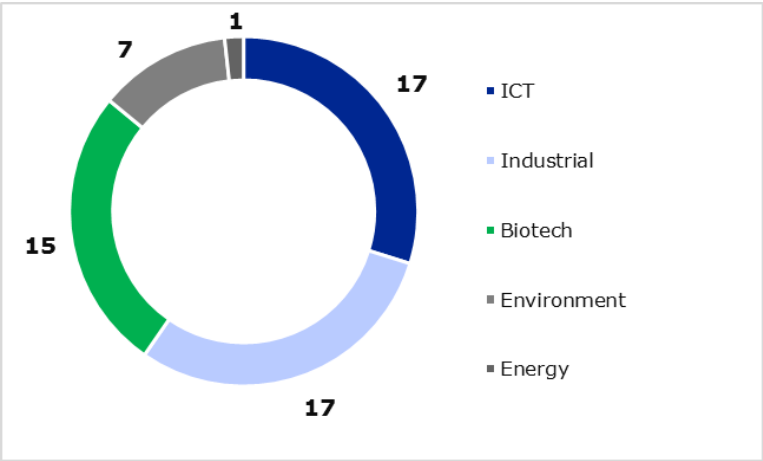
Figure 90: Distribution by tech area



Source: Eurostars Database (2016)

The main primary markets are: medical or health related (28%), industrial products or manufacturing (21%) and biotechnology or molecular biology (11%).

Figure 91: Distribution by primary market



Source: Eurostars Database (2016)

Interview guidelines for short interviews

Context of the interview			
Name of the Client	European Commission – DG R&I	Interview performed by *(Name and date)*	
Project	Analysis of impact of completed Eurostars-1 projects	Minute prepared by *(Name and date)*	
Scope of the interview			
Name of the project			
Call number			
Start date / End date			
Market introduction			
Name of the company (main partner)			
Name of respondent			
Information gathered during the interview			
Context of the project **Question 1. When the project is ended? (specify the date)** **Question 2. The product/service has been introduced to market? (yes or no) If yes, when (specify the date).**			

ANNEX 4: IN-DEPTH INTERVIEWS WITH MAIN PARTNERS

Methodology

Based on the results of the desk research and on the outcomes of the short interviews, 41 projects have been identified for an in-depth interview and analysis (out of which 11 were used as backup in case the some main partners are not available for interviews).

The following selection criteria have been used to select these projects in order to have a sample that is as representative as possible (i.e. proportionate to the entire population overall):

- Main criteria:
  - Introduction of the product/service/process in the market;
  - Distribution by cut-off;
  - Geographical distribution;
  - Type of partners involved;
  - Willingness to take part in the in-depth interviews.
- Additional criteria:
  - Technological area;
  - Primary market.

Response rate

During the period January - March 2017, we have contacted 41 main partners and managed to conduct interviews for 30 projects.

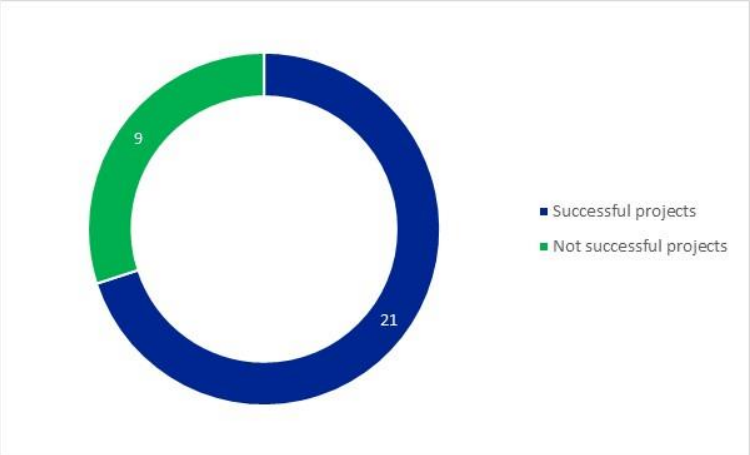
Respondent profile

Main criterion 1 - Introduction of the product/service/process on the market

The 30 projects covered through in-depth interviews include both successful and not successful ones in terms of introduction of the product/service/process on the market.

The majority of analysed projects (70%) were successful ones.

Figure 92: Distribution of projects in terms of success of market introduction



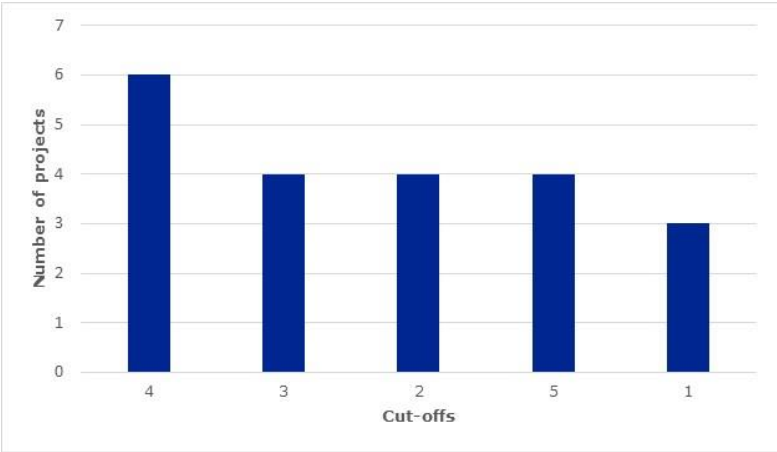
Source: In-depth interviews conducted within the study

Main criterion 2 - Distribution by cut-off

The following figures present the distribution of the projects whose main partners were interviewed by cut-off.

Successful projects from all cut-offs have been in-depth analysed.

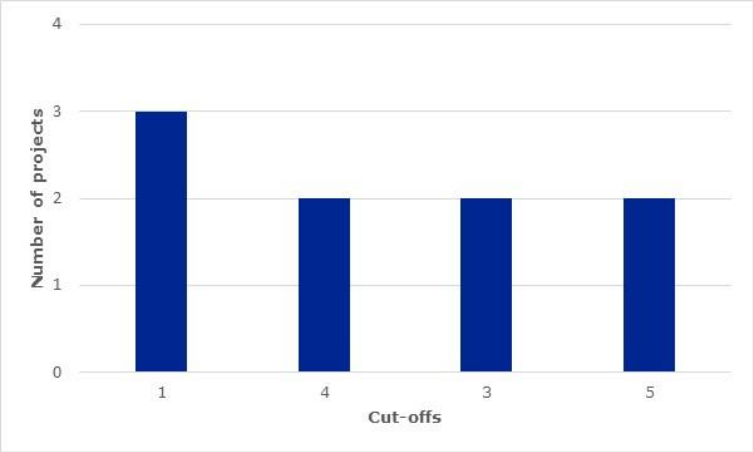
Figure 93: Distribution of the selected projects by cut-off (successful projects)



Source: In-depth interviews conducted within the study

In-depth analysed not successful projects pertained to 4 cut-offs. Cut-off 2 has not been covered as no main partner implementing a not successful project expressed the willingness to be interviewed.

Figure 94: Distribution of the selected projects by cut-off (not successful projects)



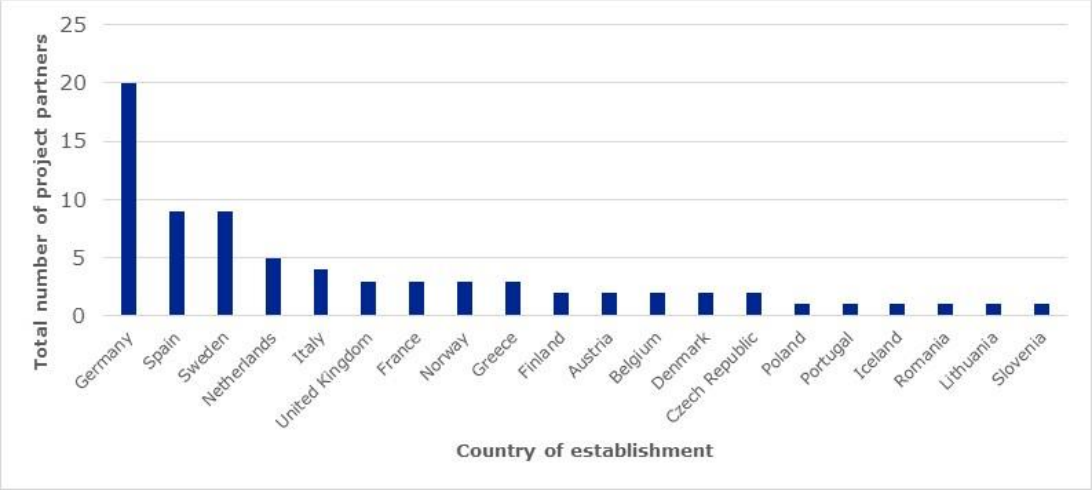
Source: In-depth interviews conducted within the study

Main criterion 3 – Geographical distribution

The following four figures reflect the distribution of all partners, respectively main partners implementing the in-depth analysed projects per country of establishment.

Seventy-five Eurostars-1 beneficiaries (including main partners) from 20 countries have been represented within the in-depth interviews addressing projects with results introduced in the market. Three countries concentrated half of the project beneficiaries, namely: Germany, Spain and Sweden. The other half of the beneficiaries was more balanced in terms of geographical distribution, the number of interviewees varying between 1 and 5 per country.

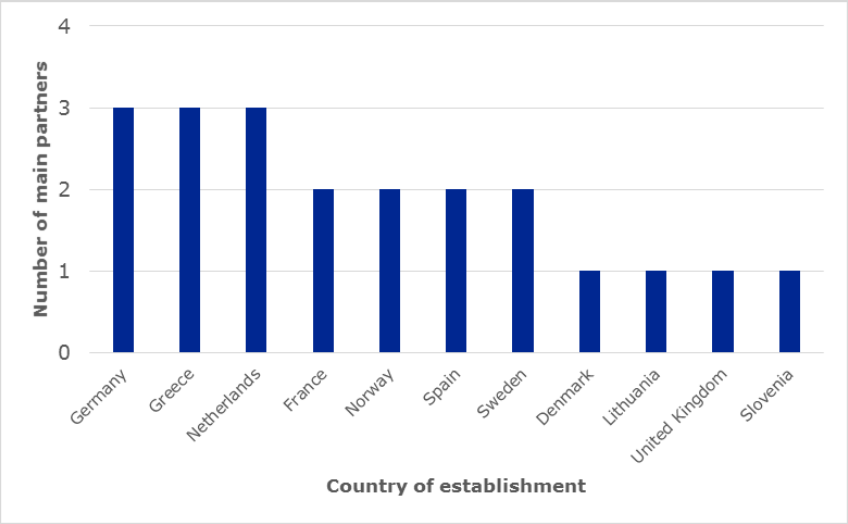
Figure 95: Geographical distribution of represented project partners (successful projects)



Source: In-depth interviews conducted within the study

Twenty-one out of the 75 represented beneficiaries with successful projects are main partners representing 11 countries. A rather balanced geographical distribution of them can be noticed, each country being represented by up to 3 main partners. As it could be noticed, In line with the geographical representation in terms of total number of project partners, Germany is also one of the well-represented countries as for the country of establishment of the main partner.

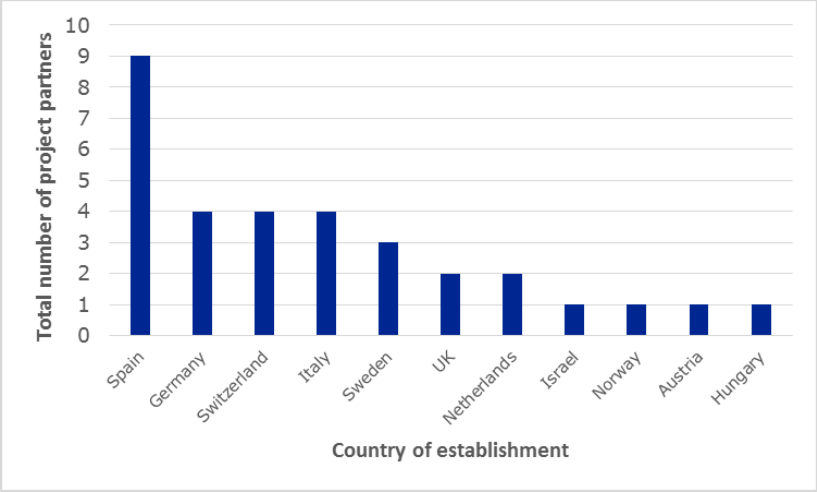
Figure 96: Geographical distribution of interviewed main partners (successful projects)



Source: In-depth interviews conducted within the study

Thirty-two Eurostars-1 beneficiaries from 11 countries have been represented within the in-depth interviews addressing projects with no results introduced in the market. Except from Spain which was the most represented country of establishment in this series of interviews, there are no significant differences in terms of geographical representation, each of the other 10 countries being represented by up to 4 project partners.

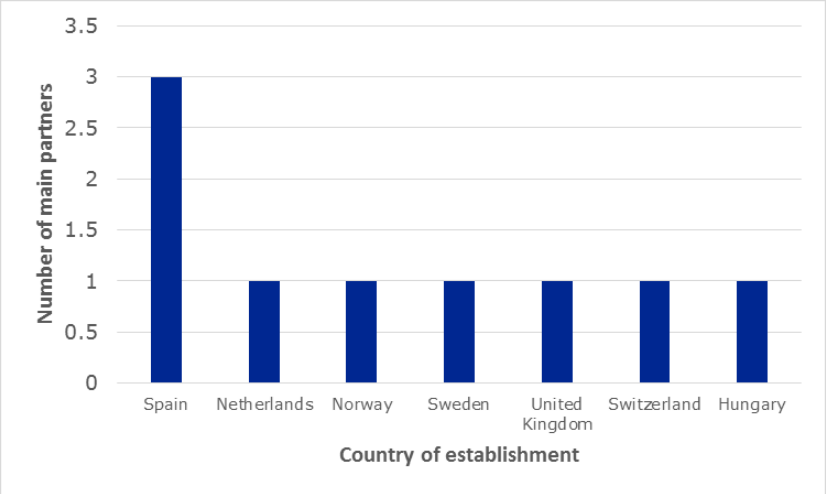
Figure 97: Geographical distribution of represented project partners (not successful projects)



Source: In-depth interviews conducted within the study

Nine out of the 32 represented beneficiaries with not successful projects are main partners representing 7 countries. As highlighted in the below figure, a rather balanced distribution of interviewed main partner per country was ensured.

Figure 98: Geographical distribution of interviewed main partners (not successful projects)

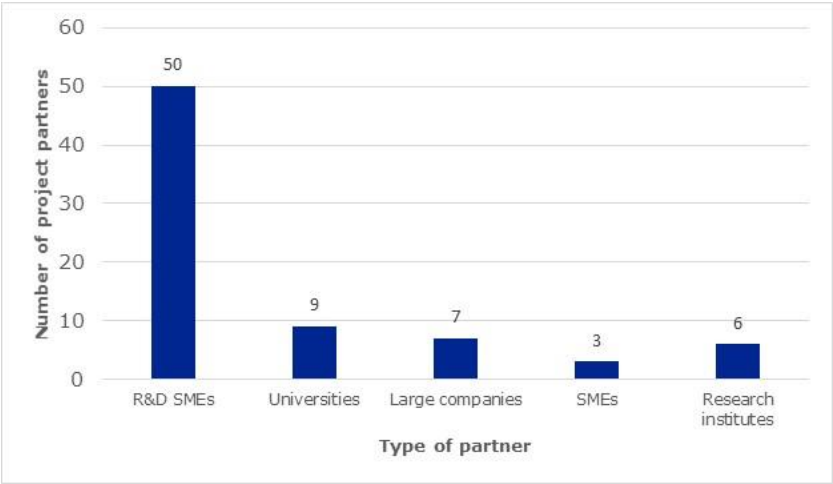


Source: In-depth interviews conducted within the study

Main criterion 4 – Types of partners involved

In terms of type of organisations that partnered to implement Eurostars-1 projects (successful projects), most of them were SMEs, more precisely R&D SMEs. This fact is aligned with the setup of the Eurostars programme (target group, conditions and objectives) as it was designed to involve in each project at least one R&D SME as main partner and to support them in performing R&D activities and introducing the results in the market. Universities are the second most type of organisations that contributed to the development of the 21 projects hereby referred to. Large companies and research institutes have been also part of these successful projects.

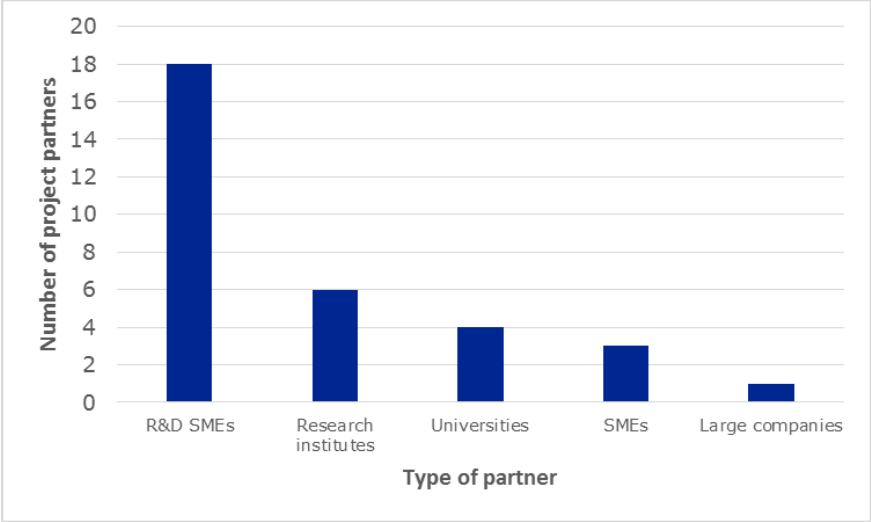
Figure 99: Types of partners represented in the interviews (successful projects)



Source: In-depth interviews conducted within the study

As expected also regarding the not successful projects, R&D SMEs are the most common type of project partner involved in projects with no results introduced in the market, in line with Eurostars-1 programme setup. The sample of projects hereby analysed involved a larger number of research institutes than universities as compared with the previous analysed sample (the ones with successful market introduction). Moreover, a more reduced number of large companies could be noticed in this sample also compared with the previous one.

Figure 100: Types of partners represented in the interviews (not successful projects)



Source: In-depth interviews conducted within the study

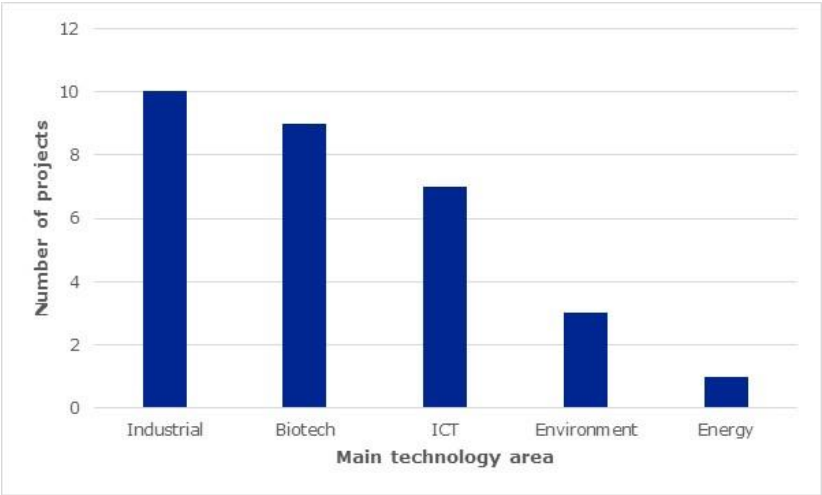
Main criterion 5 - Willingness to take part in the in-depth interviews

All main partners selected to take part in the in-depth interviews expressed during the short interview their availability to participate also in the second one.

Additional criterion 1 – Technological area

The projects in-depth analysed through the second type of interviews addressed all 5 technological areas targeted in the first 5 cut-offs of Eurostars-1, as reflected in the below figure.

Figure 101: Distribution of projects per technological area

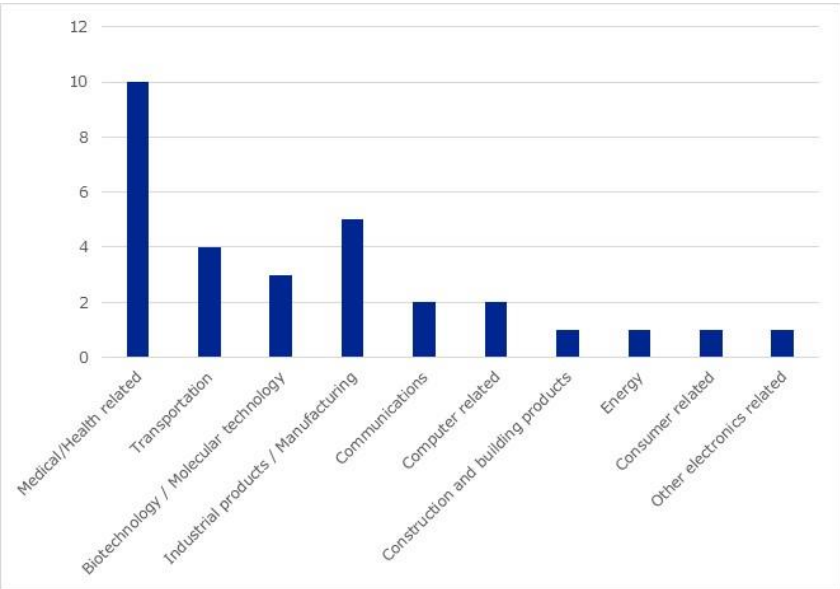


Source: In-depth interviews conducted within the study

Additional criterion 2 – Primary market

Moreover, the in-depth analysed projects addressed the majority of primary markets (10 out of 12) targeted within the first 5 cut-offs of Eurostars-1. *Agriculture, forestry and fishing* and *Services* primary markets have not been covered as no main partner addressing them was available to participate in an in-depth interview.

Figure 102: Distribution of projects per primary market



Source: In-depth interviews conducted within the study

Interview guidelines for in-depth interviews

Context of the interview			
Name of the Client	European Commission – DG R&I	Interview performed by *(Name and date)*	
Project	Analysis of impact of completed Eurostars-1 projects	Minute prepared by *(Name and date)*	
Scope of the interview			
Name of the project			
Call number			
Start date / End date			
Market introduction			
Name of the company (main partner)			
Name of respondent			
Information gathered during the interview			

Context of the project

Question 1. How did you hear about the Eurostars-1 programme and what determined you to participate in the programme?

- Previous experience in implementing R&D activities and projects
- Sources of financing for R&D activities and projects (own and external)
- Expected benefits of participating in the Eurostars-1 programme
- Barriers encountered while applying for Eurostars-1 funding (for example, related to length and complexity of application process)

Question 2. How did you find / select the project partners?

- Previous experience in working with the selected project partners
- Type, sector of activity and country of residence for each project partner
- Role of each partner in the project
- Continuity of collaboration with the project partners – during the project implementation (i.e. inactive or withdrawn partners)

Main results of the project

Question 3. What were the main activities and results of the project?

- Activities performed within the project
- Developed products / services

Question 4. After how many years (1, 2 or more) to the completion of the project, new or improved products/processes have been introduced in the market?

- No of years needed to introduce the products / services on the market
- The markets (countries) where the products / services were introduced
- Response from the market and profitability (as expected?)

- Success factors that contributed to the introduction of the project results in the market (for example, related to project management, collaboration with project partners, market acceptance)
- Received grants or loans for introducing the products / services and additional investments / resources

Question 5. What were the bottlenecks encountered in the preparation of the introduction of the project results in the market?

- Problems encountered during the project implementation and solutions proposed (for example, related to project management, product development)
- Problems encountered during the market introduction and solutions proposed (for example, related to market identification, availability of funds)
- Added value for the company

Question 6. What are the perceived benefits for your company of participating in Eurostars-1 programmes?

- **Knowledge benefits**: Improved research competencies, Improved training competencies, enhanced ability to manage R&D resources, improved access to complementary expertise, ability to attract/hire new specialised human resources, improved level of skills for personnel
- **Network benefits**: formation of new partnerships and networks, improved R&D linkages with universities and other research institutes, improved R&D linkages with industry and business
- **Reputational benefits:** enhanced reputation and image, facilitated participation in other R&D or innovation programs, visibility of the entity in the country of origin (signalling for participating in FP projects)
- **Improved competitive position:** increased research results, access to financial resources (especially relevant for countries under economic and financial assistance), increased turnover generated, increased company growth, new markets developed, increased number of employees, increased innovation, increased sustainability, introduction of new products/processes/services in the market
- **Internationalisation benefits:** international cooperation with other research institutions, better access to international markets, internationalization of activities.
- Other (please specify)

Question 7. What is the added value for SME's of introducing the project results in the market?

- Estimated added value in terms of increased turnover, increased company growth, new markets developed, increased number of employees, increased innovation, increased sustainability, etc.

Sustainability of the project results

Question 8. How would you assess the sustainability of the project results?

- Number of partners currently active on the market
- Number of partners performing R&D activities
- Continuity of collaboration among the project partners – after the project implementation
- Economic indicators (for example, product / service profitability)

Recommendations

Question 9. Has the Eurostars-1 programme met with success the objective to assist SME's from research activities to the market? (please explain)

- Contribution of Eurostars-1 programme to the success of the project
- Possibility to implement / complete the project without Eurostars-1 support

Question 10. What element of Eurostars-1 should be improved in order to achieve a successful introduction in the market of project results?

- Please consider all phases of the project, from project development, selection, allocation of funds, monitoring and support offered by National Project Officers and Secretariat, reimbursement of funds, etc.

Question 11. Have you participated in other Horizon 2020 initiatives? For example, SME Instrument Phase 2 projects and collaborative projects under the Societal Challenges

and Leadership in Enabling and Industrial Technologies.

- If yes, please assess the results / added value under each programme for your company. What elements can be transferred to Eurostars to increase its effectiveness?

Question 12. Do you intend to apply to other similar R&D programmes? Please explain what are your reasons, what factors motivate you or what are the reasons holding you back.

- Overall assessment of Eurostars-1 programme
- Intention to participate in other similar programmes, including Eurostars

ANNEX 5: LIST OF PROJECTS IN-DEPTH ANALYSED THROUGH INTERVIEWS

Cut-off	Project ID	Acronym	Participant ID	Main partner	Participant country	Tech area	Primary market name	Market introduction of planned products, services, processes	Name	Phone	Email	Interview conducted by
1	4329	NanoComfort	653	PLASMATRIX MATERIALS AB	Sweden	Industrial	Industrial Products / Manufacturing	Yes	Fu Qilin	+46732750415	qilin@plasmatrix-materials.com	Optimity Advisory
1	4315	Proactive Cold Chain	608	EASYTECH S.L.	Spain	ICT	Communications	No	Alfonso Gallardo	+34918529408	agallardo@easytech.es	Optimity Advisory
1	4400	DISC-SCREEN	1024	Institut Univ. de Ciència i tecnologia, S.A.	Spain	Biotech	Medical / Health Related	Yes	Roberto Hocajada	+34935793432	int.projects@iuct.com	EY
1	4409	Q-SAIL	1057	Tidal Sails AS	Norway	Energy	Energy	No	Are Borgesen	+4790168686	are@tidalsails.com	EY
1	4335	UPLIT	685	UAB Ekspla	Lithuania	Industrial	Other Electronics Related	Yes	Andrejus Michailovas	+37068682169	a.michailovas@ekspla.com	EY
2	4621	BIOGRAPHE	1845	Sinequa	France	ICT	Computer Related	Yes	Frederik Cailliau	+33170087171	cailliau@sinequa.com	Optimity Advisory
2	4723	Fryer Odor Reduction	2266	Scandinavian Centriair AB	Sweden	Industrial	Consumer Related	Yes	Per Kaijser	+46 707778789	per@centriair.com	EY
2	4797	SARA	2549	SOFiSTiK Hellas S.A.	Greece	Industrial	Construction And Building Products	Yes	Evi Seferli	+302108256430	info@sofistik.gr	Optimity Advisory
2	4804	Maritime CCS	2571	Process Systems Enterprise Ltd	United Kingdom	Environment	Transportation	Partial	Nilay Shah	+447872850044	n.shah@psenterprise.com	Optimity Advisory
3	5092	IPRO	3445	Eidologic GmbH	Germany	Industrial	Industrial Products / Manufacturing	Yes	Heiko Gemming	+491725663092	h.gemming@eidologic.de	Optimity Advisory
3	5192	EXPERT	4042	EASYTECH S.L.	Spain	ICT	Transportation	Yes	Alfonso Gallardo	+34918529408	agallardo@easytech.es	Optimity Advisory
3	5217	mainDSS	4131	Atlantis Engineering Ltd	Greece	ICT	Industrial Products / Manufacturing	Yes	Cosmas Vamvalis	+302310804940	vamvalis@abe.gr	Optimity Advisory

3	5226	Heartsave	4158	Vicore Pharma AB	Sweden	Biotech	Medical / Health Related	No	Per Jansson	+46709174746	per.Jansson@Mintage.se	Optimity Advisory
3	5227	FIBROSPHERE	4163	MICRO MACINAZIONE SA	Switzerland	Industrial	Medical / Health Related	No	Piero Iamartino	+41916113636	piamartino@micromacinazione.com	Optimity Advisory
3	5257	PORAC	4258	Percuros	Netherlands	Biotech	Biotechnology / Molecular Biology	Yes	Alan Chan	+447779572738	achan@percuros.com	Optimity Advisory
3	5090	PrognoseMS	3442	Progenika Biopharma SA	Spain	Biotech	Biotechnology / Molecular Biology	No	Eli Diez	+34944064525	Eli.Diez@progenika.grifols.com	EY
3	5162	3D-Aerodromes	3893	EPSILON International SA	Greece	Industrial	Transportation	Yes	Marc Bonazountas	+302106898615	bonazountas@epsilon.gr	EY
4	5512	ACCURCOS	5741	VORtech BV	Netherlands	ICT	Transportation	Yes	Edwin Vollebregt	+31152850128	edwin.vollebregt@vortech.nl	Optimity Advisory
4	5518	PhasedCom	5781	Phasor Solutions Ltd	United Kingdom	ICT	Communications	No	Tim Esparon	+447841747838	tim.esparon@phasorsolutions.com	Optimity Advisory
4	5524	ES Video	5848	Dalim Software GmbH	Germany	ICT	Computer Related	Yes	Frédéric Sanuy	+497851919635	frederic.sanuy@dalim.com	Optimity Advisory
4	5720	LUMIGEN	7655	Lumigreen as	Norway	Biotech	Biotechnology / Molecular Biology	Yes	Per Aage Lysaa	+4792022201	lysaa@intravision.no	Optimity Advisory
4	5727	Mammalian CRP	7681	Gentian Technology AS	Norway	Biotech	Medical / Health Related	Yes	Ben Campbell-Kelly	+4792221628	ben@gentian.no	Optimity Advisory
4	5526	GAZELLE	5864	Nordisk Roentgen Teknik A/S	Denmark	Industrial	Medical / Health Related	Yes	Mogens Ravn	+4551230330	mr@nrtxray.com	EY
4	5660	S.S.C.T.	7269	Geva Sol B.V.	Netherlands	Biotech	Medical / Health Related	No	Eugene van Schijndel	+31765204202	e.schijndel@hgm.eu	EY
5	5995	TOOLBOX	8723	IBA Gmbh	Germany	Biotech	Medical / Health Related	Partial	Joachim Bertram	+4955150672118	bertram@iba-go.com	Optimity Advisory
5	5999	Ar-Tex	8739	NEOS SURGERY SL	Spain	Industrial	Medical / Health Related	No	Ana Rodríguez Alonso	+34935944726	arodriguez@neosurgery.com	EY
5	5923	COLLAD	8417	Biom'Up	France	Biotech	Medical / Health Related	Yes	Stéphane GAMEZ	+33482903496	s.gamez@biomup.com	EY
5	6130	GreenRubber	9294	Micro Europe	Hungary	Environment	Industrial	No	Vékonyné	+36302361184	microeurope@freemail.h	Optimity

				Kft.			Products / Manufacturing		Jarecsny Klára		u	Advisory
5	6187	Rapid Disk	9480	BD Kiestra	Netherlands	Industrial	Medical / Health Related	Partially	Gerard Mulder	+31512510710	Gerard_Mulder@europe.bd.com	Optimity Advisory
5	6216	INFERPRO	9610	Balder optoelectronic elements and measuring systems d.o.o.	Slovenia	Environment	Industrial Products / Manufacturing	Yes	Bojan Marin	+38614776 681	bojan.marin@balder.si	Optimity Advisory

ANNEX 6: LIST OF PROJECTS FOR IMPACT ANALYSIS

Call	Project ID	Acronym	Tech area simplified	Primary tech name	Primary market name	Total Cost (M€)	EU commitment (M EUR)	Results Achieved	Mkt Intr.	Type of consortium	Size of consortium
1	4224	HYDROFLOWN	Environment	Technology For Protecting Man And The Environment	Industrial Products / Manufacturing	EUR 2,380,000	EUR 474,385	yes	yes	ONLY R&D	2
1	4225	A ProPer Plan	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,090,000	EUR 133,186	yes	yes	R&D + other	2
1	4226	AZ-radio	Environment	Technology For Protecting Man And The Environment	Services	EUR 1,360,000	EUR 115,230	yes	yes	ONLY R&D	2
1	4227	ELTGEL	Energy	Energy Technology	Energy	EUR 1,990,000	EUR 235,130	yes	yes	R&D + other	6
1	4243	MATRIX	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 1,820,000	EUR 164,736	yes	yes	ONLY R&D	2
1	4244	MIRSA	Industrial	Measurements And Standards	Other Electronics Related	EUR 2,250,000	EUR 234,279	yes	yes	ONLY R&D	2
1	4247	Q-FORS	Biotech	Biological Sciences / Technologies	Agriculture, Forestry And Fishing	EUR 890,000	EUR 117,134	yes	yes	R&D + other	3
1	4249	NEGFORT	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,170,000	EUR 130,988	yes	yes	R&D + other	4
1	4250	GEMOSS	Industrial	Measurements And Standards	Services	EUR 520,000	EUR 45,545	yes	yes	ONLY R&D	2
1	4258	ISTAR	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 3,580,000	EUR 312,625	yes	yes	R&D + other	2
1	4260	Pain Detector	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 650,000	EUR 98,325	yes	yes	R&D + other	3
1	4261	TECTECH	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,400,000	EUR 214,528	yes	yes	R&D + other	3
1	4269	SECURITY MECH	Industrial	Other Industrial Technologies	Industrial Products / Manufacturing	EUR 1,290,000	EUR 128,126	yes	yes	R&D + other	4
1	4274	IVISCAT	Industrial	Industrial Manufacturing, Material And Transport	Transportation	EUR 2,700,000	EUR 219,540	yes	yes	R&D + other	3
1	4277	E-Service4U	ICT	Electronics, It And Telecoms Technology	Services	EUR 590,000	EUR 74,244	yes	yes	ONLY R&D	3
1	4278	SECADA	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 670,000	EUR 56,629	yes	yes	ONLY R&D	2
1	4287	G.T.S.	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 1,960,000	EUR 214,408	yes	yes	ONLY R&D	2

1	4289	SILIBACTS	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 1,273,400	EUR 226,067	yes	yes	R&D + other	4
1	4292	MCCGTP	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 490,000	EUR 86,877	yes	yes	R&D + other	2
1	4293	POLYLAYER	Industrial	Other Industrial Technologies	Industrial Products / Manufacturing	EUR 360,000	EUR 47,915	yes	yes	ONLY R&D	2
1	4300	PhenoCrop	Environment	Agriculture And Marine Resources	Biotechnology / Molecular Biology	EUR 1,420,000	EUR 85,601	yes	yes	ONLY R&D	2
1	4302	Z-PHONE	ICT	Electronics, It And Telecoms Technology	Communications	EUR 640,000	EUR 85,900	yes	yes	ONLY R&D	3
1	4309	LOTIMS	Environment	Agrofood Technology	Industrial Products / Manufacturing	EUR 1,350,000	EUR 192,125	yes	yes	R&D + other	4
1	4312	AID	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,899,800	EUR 110,000	no	yes	R&D + other	2
1	4314	SUSYPHOS	Environment	Technology For Protecting Man And The Environment	Agriculture, Forestry And Fishing	EUR 1,067,500	EUR 180,134	yes	yes	R&D + other	4
1	4315	Proactive Cold Chain	ICT	Electronics, It And Telecoms Technology	Communications	EUR 2,820,000	EUR 350,729	yes	no	R&D + other	6
1	4321	EASTBRED	Environment	Agrofood Technology	Agriculture, Forestry And Fishing	EUR 2,410,000	EUR 364,421	yes	yes	ONLY R&D	4
1	4324	SME42	ICT	Electronics, It And Telecoms Technology	Communications	EUR 4,590,000	EUR 363,177	yes	yes	R&D + other	3
1	4329	NanoComfort	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,700,000	EUR 190,904	yes	yes	R&D + other	6
1	4335	UPLIT	Industrial	Chemistry, Physical And Exact Sciences	Other Electronics Related	EUR 1,800,000	EUR 214,115	yes	yes	R&D + other	2
1	4336	SiPoSi	Energy	Energy Technology	Energy	EUR 770,000	EUR 50,000	yes	no	R&D + other	2
1	4339	CORVUS	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,250,000	EUR 95,808	yes	yes	ONLY R&D	3
1	4342	AACs for ALL	ICT	Electronics, It And Telecoms Technology	Communications	EUR 1,300,000	EUR 123,456	yes	yes	ONLY R&D	2
1	4353	COLLFRESH	Environment	Agriculture And Marine Resources	Agriculture, Forestry And Fishing	EUR 490,000	EUR 70,396	yes	yes	R&D + other	2
1	4365	SOLIM	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 2,110,000	EUR 326,165	yes	yes	ONLY R&D	4
1	4366	MICROFRUIT	Environment	Agriculture And Marine Resources	Agriculture, Forestry And Fishing	EUR 830,000	EUR 135,211	yes	yes	ONLY R&D	3

1	4371	GreenWWater	Industrial	Chemistry, Physical And Exact Sciences	Services	EUR 640,000	EUR 88,191	yes	no	ONLY R&D	4
1	4372	BrainCapsule	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 410,000	EUR 53,500	yes	yes	ONLY R&D	3
1	4373	CAST	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,074,230	EUR 129,991	yes	yes	R&D + other	4
1	4379	TaniXing	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 940,000	EUR 160,889	yes	yes	R&D + other	5
1	4381	Eco 'cis-crops'	Environment	Agriculture And Marine Resources	Biotechnology / Molecular Biology	EUR 1,740,000	EUR 288,416	no	no	R&D + other	4
1	4383	LUMIX	Industrial	Chemistry, Physical And Exact Sciences	Industrial Products / Manufacturing	EUR 1,060,000	EUR 133,366	yes	yes	R&D + other	4
1	4386	MICROSHAPE	Industrial	Other Industrial Technologies	Industrial Products / Manufacturing	EUR 550,000	EUR 31,558	yes	yes	R&D + other	3
1	4388	DYSLEXTEST	ICT	Electronics, It And Telecoms Technology	Medical / Health Related	EUR 1,120,000	EUR 154,787	yes	yes	R&D + other	2
1	4392	TRACECARD	Industrial	Industrial Manufacturing, Material And Transport	Consumer Related	EUR 1,798,200	EUR 205,610	yes	no	R&D + other	5
1	4400	DISC-SCREEN	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,520,000	EUR 232,252	yes	yes	ONLY R&D	3
1	4409	Q-SAIL	Energy	Energy Technology	Energy	EUR 3,500,000	EUR 414,678	yes	no	R&D + other	4
1	4410	SESS	Industrial	Measurements And Standards	Energy	EUR 1,634,240	EUR 261,552	yes	yes	R&D + other	5
1	4411	SPINWAVE	ICT	Electronics, It And Telecoms Technology	Other Electronics Related	EUR 1,730,000	EUR 161,406	yes	yes	ONLY R&D	3
1	4419	MYOLITE	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,414,310	EUR 220,500	yes	yes	R&D + other	3
2	4587	AGILE	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 558,638	EUR 80,191	yes	yes	R&D + other	3
2	4593	iRESCUE	Environment	Technology For Protecting Man And The Environment	Communications	EUR 2,357,239	EUR 259,131	yes	yes	R&D + other	3
2	4620	NMEG	Industrial	Chemistry, Physical And Exact Sciences	Industrial Products / Manufacturing	EUR 1,500,000	EUR 214,813	no	yes	ONLY R&D	2
2	4621	BIOGRAPHE	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,916,453	EUR 245,309	no	yes	R&D + other	6
2	4632	ProBaSensor	Industrial	Industrial Manufacturing, Material And Transport	Computer Related	EUR 783,000	EUR 97,594	yes	yes	R&D + other	4

2	4649	ARCA	Industrial	Industrial Manufacturing, Material And Transport	Transportation	EUR 1,413,900	EUR 180,630	yes	yes	R&D + other	4
2	4653	Vacuum-DLC	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,230,000	EUR 120,015	yes	yes	R&D + other	4
2	4655	PEPSPEX	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,574,000	EUR 180,913	yes	no	R&D + other	3
2	4659	MIGaN	ICT	Electronics, It And Telecoms Technology	Communications	EUR 1,697,000	EUR 126,325	yes	yes	R&D + other	2
2	4660	RapidTest	Industrial	Measurements And Standards	Consumer Related	EUR 1,299,450	EUR 156,036	yes	yes	R&D + other	3
2	4669	JELLYFOR	Environment	Technology For Protecting Man And The Environment	Services	EUR 1,350,360	EUR 124,519	yes	yes	R&D + other	3
2	4678	NC Code Optimizer	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 838,800	EUR 119,964	yes	yes	R&D + other	4
2	4683	ARCHIVATOR	ICT	Electronics, It And Telecoms Technology	Services	EUR 7,500,000	EUR 891,706	yes	yes	R&D + other	6
2	4694	MeeTeach	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 857,000	EUR 87,318	yes	yes	R&D + other	2
2	4699	ABSYS	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 1,392,160	EUR 168,962	yes	yes	ONLY R&D	2
2	4705	AIR-MAN	ICT	Electronics, It And Telecoms Technology	Transportation	EUR 1,776,401	EUR 119,509	yes	yes	ONLY R&D	3
2	4718	AFCS	ICT	Electronics, It And Telecoms Technology	Communications	EUR 2,928,800	EUR 438,241	no	no	R&D + other	3
2	4723	Fryer Odor Reduction	Industrial	Other Industrial Technologies	Consumer Related	EUR 282,430	EUR 34,796	yes	yes	R&D + other	4
2	4724	MULTI@HOME	ICT	Electronics, It And Telecoms Technology	Communications	EUR 1,400,000	EUR 121,472	yes	yes	R&D + other	3
2	4738	SOILVIBES	Environment	Technology For Protecting Man And The Environment	Transportation	EUR 891,000	EUR 83,700	yes	yes	R&D + other	2
2	4745	RFexpert	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,923,346	EUR 196,021	yes	yes	R&D + other	3
2	4748	CUBEA	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 693,360	EUR 65,340	yes	no	ONLY R&D	3
2	4769	T.E.O.M.E.S	ICT	Electronics, It And Telecoms Technology	Transportation	EUR 712,500	EUR 49,875	yes	yes	ONLY R&D	2
2	4770	PEASTAR	Biotech	Biological Sciences / Technologies	Agriculture, Forestry And Fishing	EUR 245,000	EUR 27,102	yes	yes	R&D + other	2

2	4774	CATAPULT	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 562,800	EUR 64,798	no	yes	ONLY R&D	2
2	4775	Fistula Catheter	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 739,930	EUR 109,704	yes	no	R&D + other	3
2	4789	ECOTREE	Biotech	Biological Sciences / Technologies	Agriculture, Forestry And Fishing	EUR 825,000	EUR 96,292	yes	yes	ONLY R&D	3
2	4793	HYPROCOM	Industrial	Other Industrial Technologies	Industrial Products / Manufacturing	EUR 1,953,500	EUR 230,554	no	no	R&D + other	4
2	4797	SARA	Industrial	Industrial Manufacturing, Material And Transport	Construction And Building Products	EUR 968,534	EUR 161,849	yes	yes	R&D + other	3
2	4802	MARFT	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 942,720	EUR 136,723	yes	yes	R&D + other	3
2	4804	Maritime CCS	Environment	Technology For Protecting Man And The Environment	Transportation	EUR 1,142,325	EUR 138,207	yes	yes	R&D + other	2
2	4806	Enhanced ADEPT	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,376,270	EUR 111,260	no	no	R&D + other	2
2	4813	GLYCOPRO	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 2,230,408	EUR 284,426	yes	no	R&D + other	5
2	4816	PSST	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 497,120	EUR 68,827	yes	yes	R&D + other	5
2	4821	CleanCustomTool	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,048,920	EUR 119,267	yes	yes	R&D + other	4
2	4825	FC Aeth	Environment	Technology For Protecting Man And The Environment	Other Electronics Related	EUR 710,000	EUR 89,321	yes	yes	R&D + other	3
2	4830	CAMPUS 2	ICT	Electronics, It And Telecoms Technology	Communications	EUR 2,401,250	EUR 232,292	yes	yes	R&D + other	3
2	4838	GeneICE	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 1,159,458	EUR 153,684	yes	no	ONLY R&D	3
2	4846	SkinMonitor	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,017,800	EUR 155,779	yes	yes	R&D + other	5
2	4857	REOP	Environment	Technology For Protecting Man And The Environment	Industrial Products / Manufacturing	EUR 1,329,500	EUR 125,750	no	yes	ONLY R&D	2
3	5049	SterilMed	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 3,000,000	EUR 307,000	yes	no	R&D + other	3
3	5067	pharmAID	ICT	Electronics, It And Telecoms Technology	Medical / Health Related	EUR 2,080,000	EUR 222,091	yes	no	R&D + other	5
3	5069	NewBone	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 2,213,900	EUR 277,788	yes	yes	R&D + other	4

3	5087	MycoDripSeed	Environment	Agriculture And Marine Resources	Agriculture, Forestry And Fishing	EUR 755,000	EUR 91,670	yes	yes	R&D + other	2
3	5090	PrognoseMS	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 1,222,430	EUR 169,559	yes	no	R&D + other	2
3	5092	IPRO	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 2,012,329	EUR 216,221	yes	yes	R&D + other	7
3	5093	DYNAMO	ICT	Electronics, It And Telecoms Technology	Transportation	EUR 800,000	EUR 100,486	yes	yes	ONLY R&D	2
3	5103	BioSec	ICT	Electronics, It And Telecoms Technology	Other Electronics Related	EUR 767,929	EUR 70,643	no	yes	ONLY R&D	2
3	5112	RELIS	ICT	Electronics, It And Telecoms Technology	Medical / Health Related	EUR 2,488,440	EUR 143,496	yes	yes	R&D + other	5
3	5120	HarmoPlan	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 849,077	EUR 33,350	yes	yes	R&D + other	2
3	5125	ICRAC	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,505,040	EUR 158,103	yes	no	ONLY R&D	2
3	5128	NC-GEAR	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 897,800	EUR 87,790	yes	yes	ONLY R&D	3
3	5131	NORM	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 2,038,193	EUR 234,037	yes	yes	R&D + other	5
3	5143	PRK_TREATMENT	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 898,670	EUR 123,066	yes	yes	R&D + other	4
3	5144	TFM	ICT	Electronics, It And Telecoms Technology	Services	EUR 2,570,178	EUR 176,100	yes	yes	R&D + other	4
3	5147	OPTITUNE	Industrial	Measurements And Standards	Medical / Health Related	EUR 1,313,092	EUR 153,014	yes	yes	R&D + other	2
3	5156	KINOMED	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 450,000	EUR 56,947	no	yes	ONLY R&D	3
3	5157	ILATAS	Environment	Technology For Protecting Man And The Environment	Construction And Building Products	EUR 560,000	EUR 76,515	yes	yes	R&D + other	4
3	5162	3D-Aerodromes	Industrial	Industrial Manufacturing, Material And Transport	Transportation	EUR 2,461,233	EUR 218,498	yes	yes	ONLY R&D	6
3	5164	POPELIM	Environment	Technology For Protecting Man And The Environment	Services	EUR 520,000	EUR 73,823	yes	yes	R&D + other	3
3	5167	IN-SIGHT	ICT	Electronics, It And Telecoms Technology	Services	EUR 2,496,342	EUR 239,925	yes	yes	R&D + other	2
3	5173	WOMMI	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 1,854,931	EUR 234,754	yes	yes	R&D + other	3

3	5175	DD_SAN_SWITCH	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,497,337	EUR 32,494	yes	yes	ONLY R&D	3
3	5176	Cell-Lig-Membranes	Industrial	Other Industrial Technologies	Consumer Related	EUR 1,549,900	EUR 181,991	no	yes	ONLY R&D	2
3	5186	MultiPlatform	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,550,508	EUR 91,759	yes	yes	ONLY R&D	2
3	5189	RAABSPM	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 1,644,400	EUR 188,095	yes	yes	ONLY R&D	2
3	5197	DOEFLAC	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,811,000	EUR 211,587	no	yes	R&D + other	4
3	5211	NextGENDMFC	Energy	Energy Technology	Energy	EUR 1,152,600	EUR 130,250	yes	yes	R&D + other	2
3	5214	JoSeaFine	Environment	Technology For Protecting Man And The Environment	Industrial Products / Manufacturing	EUR 1,662,500	EUR 57,189	yes	yes	R&D + other	3
3	5217	mainDSS	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 1,031,000	EUR 98,677	yes	yes	ONLY R&D	3
3	5226	Heartsave	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,333,210	EUR 215,952	yes	no	R&D + other	2
3	5227	FIBROSPHERE	Industrial	Industrial Manufacturing, Material And Transport	Medical / Health Related	EUR 1,974,000	EUR 232,074	yes	no	R&D + other	6
3	5229	FIT-ON	Industrial	Other Industrial Technologies	Medical / Health Related	EUR 1,150,699	EUR 122,206	yes	no	R&D + other	3
3	5242	HIVAC	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,199,833	EUR 194,679	no	no	R&D + other	3
3	5252	LaWocs	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 2,307,072	EUR 368,111	yes	yes	R&D + other	8
3	5270	Workflow for Service	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 805,000	EUR 82,470	yes	yes	ONLY R&D	2
3	5274	NextGenECG	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,608,000	EUR 202,312	yes	yes	ONLY R&D	2
3	5279	IIVS	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 579,100	EUR 78,705	yes	yes	R&D + other	4
3	5281	Sakuwassa	ICT	Electronics, It And Telecoms Technology	Services	EUR 2,102,650	EUR 338,471	yes	yes	ONLY R&D	2
3	5282	TLA	ICT	Electronics, It And Telecoms Technology	Services	EUR 1,346,035	EUR 163,434	yes	yes	ONLY R&D	2
3	5292	TUNFEC	Industrial	Industrial Manufacturing, Material And Transport	Construction And Building Products	EUR 2,059,500	EUR 259,769	yes	yes	R&D + other	4

3	5330	PReadyPort	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 375,450	EUR 30,513	yes	yes	ONLY R&D	2
4	5468	Heli-FLR	ICT	Electronics, It And Telecoms Technology	Transportation	EUR 3,399,757	EUR 355,467	no	no	R&D + other	3
4	5471	4CASTING	Energy	Energy Technology	Computer Related	EUR 1,193,000	EUR 98,950	yes	yes	R&D + other	4
4	5474	DILI-Screen	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 832,620	EUR 89,877	yes	yes	ONLY R&D	2
4	5492	ChiKEL	ICT	Electronics, It And Telecoms Technology	Biotechnology / Molecular Biology	EUR 671,131	EUR 93,204	yes	yes	ONLY R&D	2
4	5514	EMSAT	Industrial	Industrial Manufacturing, Material And Transport	Construction And Building Products	EUR 1,170,642	EUR 93,850	yes	yes	R&D + other	3
4	5516	ITERA	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,232,518	EUR 175,687	yes	yes	R&D + other	3
4	5518	PhasedCom	ICT	Electronics, It And Telecoms Technology	Communications	EUR 1,531,368	EUR 197,499	yes	no	R&D + other	5
4	5524	ES Video	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,787,475	EUR 207,252	yes	yes	ONLY R&D	3
4	5526	GAZELLE	Industrial	Other Industrial Technologies	Medical / Health Related	EUR 1,390,000	EUR 85,037	yes	yes	R&D + other	3
4	5532	i-CRM	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 508,280	EUR 53,505	yes	yes	R&D + other	3
4	5533	LBA	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 733,972	EUR 85,138	yes	yes	R&D + other	4
4	5582	i3DMusic	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 2,249,583	EUR 248,804	no	yes	R&D + other	4
4	5594	JILL	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,439,051	EUR 212,975	yes	yes	R&D + other	2
4	5599	DISARCO	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 724,500	EUR 116,408	yes	yes	R&D + other	4
4	5614	MonthlyC2	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,094,200	EUR 75,000	yes	yes	R&D + other	3
4	5620	AMOT	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 1,373,078	EUR 157,085	yes	no	ONLY R&D	2
4	5626	OPDM	ICT	Electronics, It And Telecoms Technology	Consumer Related	EUR 2,063,633	EUR 302,325	yes	yes	R&D + other	5
4	5636	FAMUS	ICT	Electronics, It And Telecoms Technology	Industrial Products / Manufacturing	EUR 737,850	EUR 103,475	yes	yes	ONLY R&D	2

4	5643	MobileViz	ICT	Electronics, It And Telecoms Technology	Communications	EUR 2,169,800	EUR 349,037	yes	no	R&D + other	3
4	5660	S.S.C.T.	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,798,504	EUR 100,227	yes	no	ONLY R&D	2
4	5690	SimiQbD	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,556,200	EUR 198,062	yes	no	ONLY R&D	3
4	5727	Mammalian CRP	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 2,190,985	EUR 225,131	no	yes	R&D + other	3
4	5744	ADENOTAG	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 485,000	EUR 31,825	yes	no	ONLY R&D	2
4	5754	Mini Mills	Industrial	Other Industrial Technologies	Industrial Products / Manufacturing	EUR 59,960	EUR 80,593	no	no	R&D + other	2
5	5877	MOSS	Energy	Energy Technology	Energy	EUR 1,774,400	EUR 200,626	yes	no	R&D + other	7
5	5901	SoDA	ICT	Electronics, It And Telecoms Technology	Other Electronics Related	EUR 1,459,576	EUR 102,271	yes	yes	ONLY R&D	2
5	5903	ConSPACERS	Industrial	Industrial Manufacturing, Material And Transport	Construction And Building Products	EUR 655,990	EUR 91,779	yes	yes	R&D + other	3
5	5923	COLLAD	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 2,016,820	EUR 97,500	yes	yes	R&D + other	2
5	5934	New-Vac	Biotech	Biological Sciences / Technologies	Agriculture, Forestry And Fishing	EUR 2,201,191	EUR 282,425	no	no	ONLY R&D	2
5	5936	NeedleInTheHaystack	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 904,000	EUR 125,128	no	yes	R&D + other	4
5	5939	RDT REAG	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 933,800	EUR 142,766	yes	yes	R&D + other	3
5	5943	ENCUPACK	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,411,054	EUR 81,625	yes	no	R&D + other	3
5	5949	SALOME	ICT	Electronics, It And Telecoms Technology	Medical / Health Related	EUR 1,065,387	EUR 123,925	yes	yes	R&D + other	5
5	5989	ARID	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 950,700	EUR 114,358	no	no	ONLY R&D	2
5	5998	INTERBLOG	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 915,352	EUR 110,150	yes	yes	ONLY R&D	2
5	5999	Ar-Tex	Industrial	Other Industrial Technologies	Medical / Health Related	EUR 1,006,220	EUR 162,378	yes	no	R&D + other	3
5	6000	DAPIBD	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 860,900	EUR 94,886	yes	no	ONLY R&D	2

5	6015	ETNA	ICT	Electronics, It And Telecoms Technology	Communications	EUR 2,462,969	EUR 256,581	yes	yes	R&D + other	6
5	6027	SEAWEED-STAR	Environment	Agriculture And Marine Resources	Energy	EUR 2,504,780	EUR 305,219	yes	yes	R&D + other	5
5	6037	Hi-MoCo	ICT	Electronics, It And Telecoms Technology	Computer Related	EUR 1,151,575	EUR 81,000	yes	yes	R&D + other	3
5	6121	ReBAT	Biotech	Biological Sciences / Technologies	Biotechnology / Molecular Biology	EUR 1,773,097	EUR 198,737	yes	no	ONLY R&D	2
5	6130	GreenRubber	Environment	Technology For Protecting Man And The Environment	Industrial Products / Manufacturing	EUR 345,915	EUR 59,158	yes	yes	R&D + other	2
5	6133	SOLBIO	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,051,132	EUR 126,061	yes	yes	ONLY R&D	2
5	6143	MiniTEM	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 1,717,060	EUR 220,941	yes	yes	R&D + other	3
5	6155	HumanFinder	ICT	Electronics, It And Telecoms Technology	Medical / Health Related	EUR 1,950,000	EUR 254,107	yes	no	R&D + other	3
5	6187	Rapid Disk	Industrial	Other Industrial Technologies	Medical / Health Related	EUR 2,199,391	EUR 177,352	yes	yes	R&D + other	4
5	6201	iVisc	Biotech	Biological Sciences / Technologies	Medical / Health Related	EUR 2,121,352	EUR 127,918	yes	yes	R&D + other	6
5	6203	MyCropSubstrate	Environment	Agriculture And Marine Resources	Agriculture, Forestry And Fishing	EUR 1,244,190	EUR 128,391	yes	yes	ONLY R&D	2
5	6216	INFERPRO	Environment	Technology For Protecting Man And The Environment	Industrial Products / Manufacturing	EUR 877,200	EUR 107,239	yes	yes	ONLY R&D	3
5	6237	SeProFAST	Industrial	Industrial Manufacturing, Material And Transport	Industrial Products / Manufacturing	EUR 1,508,650	EUR 187,347	no	no	R&D + other	7

How to obtain EU publications

Free publications:

• one copy:
via EU Bookshop (http://bookshop.europa.eu);

• more than one copy or posters/maps:
from the European Union's representations (http://ec.europa.eu/represent_en.htm);
from the delegations in non-EU countries (http://eeas.europa.eu/delegations/index_en.htm);
by contacting the Europe Direct service (http://europa.eu/europedirect/index_en.htm) or
calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (*).

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Priced publications:

• via EU Bookshop (http://bookshop.europa.eu).

The study evaluates the performance and assesses the impact of Eurostars-1 ended projects funded during 2008-2010 in terms of new products, processes or services introduced into the market two years after the projects' completion. The analysis also provides recommendations on how to better implement the Eurostars-2.

A quality assessment of data available was performed for identifying eventual data gaps, quality issues and data needs that could have affected the impact evaluation. This assessment revealed a series of limits of the data collection, project selection and monitoring mechanisms.

As a result, measuring the impacts of targeted projects is currently not possible in a comprehensive manner, as required data, at project and beneficiary level, are either not available, reliable or specifically related to the participation in the Eurostars programme.

Research & Innovation policy

Publications Office