"AC Konsultācijas", ltd.

# Evaluation of the BSR project "Science Link" contact points and their network, recommendations for future work

Analysis of survey and interview results, recommendations







Contracting authority: State regional development agency of Latvia

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#### Introduction

The present report, prepared by "AC Konsultācijas", ltd. at the request of State regional development agency of Latvia, covers evaluation of the project's "Network between world-leading Cluster of large-scale Research Infrastructure of Photon and Neutron Sources and Users fostering Innovation and Entrepreneurship in the Baltic Sea Region ("Science Link")" (hereinafter referred as BSR project "Science link") contact points and their network. It also includes recommendations for future work and development of contact points in the Baltic Sea Region.

The project "Science Link" has been approved within the Baltic Sea region INTERREG IVB programme 2007-2013. Period of the project was January 2012 – June 2014. Its purpose was establishing a network of contact and consultation points in the Baltic Sea Region designed to provide convenient information on opportunities offered by existing large-scale research infrastructures (e.g. the National Centre of Electromagnetic Radiation for research applications in Poland, ESS in Lund and European XFEL in Hamburg) in the BSR.

For evaluation purposes participants of the open competition have been surveyed and in total 16 interviews with employees of contact points and approved participants have been conducted. The surveys and interviews cover all project countries (Latvia, Estonia, Finland, Sweden, Denmark, Germany, Poland and Lithuania). Data and information from the evaluation have been used to formulate recommendations for future work and development of contact points and their network.

The report is structured as follows: the first part contains description of research methodology, the second part provides an overview of survey results, the third part focuses on analysis of interviews and the fourth part comprises main conclusions and recommendations for future work of contact points. Annexes to the report contain survey questionnaires and guidelines for the interviews.







## 1. Research methodology and description of fieldwork

The following chapter contains description of research methods employed, i.e. surveys and interviews.

**Two online surveys** were made for the purposes of the evaluation:

- 1) Survey of 17 project partners;
- 2) Survey of 66 participants of the open competition.

Surveys were conducted via the web portal <u>www.visidati.lv</u> from 24 February 2014 to 5 March 2014. The target group received an email invitation to take part in the survey. The results were analysed in an aggregated way. The following contains information on the surveys:

- (a) All 17 project partners took part in the **survey of project partners** (in total 18 questionnaires were received). The questionnaire was made up of 16 questions, one of which requiring demographic data. Further questions focused on the evaluation of contact point's work, cooperation with contact points and project partners, the results reached and objectives. For a sample of the questionnaire see annex 1.
- **(b)** In total 22 enterprises (a third of all participants of the open competition) took part in the **survey of participants of the open competition**. The contracting authority required a minimum of 14 questionnaires to be filled in, and the requested number of questionnaires varied from country to country.<sup>1</sup>

The questionnaire was made up of 24 questions, six of which requiring demographic data. Further questions required the opinion of entrepreneurs on their cooperation with contact points, the work of contact points, necessary improvements in their work, cooperation with research facilities and scientific organisations, project results and development plans. For a sample of the questionnaire see annex 2.

#### In total 16 interviews were conducted:

- 1) Eight interviews with contact points;
- 2) Eight interviews with approved participants of the open competition.

Interviews were conducted from 24 February to 13 March 2014 upon prior agreement. In average they took from 20 minutes to 1 hour. The results are analysed in an aggregated way.

<sup>&</sup>lt;sup>1</sup> The requirement was to receive the following number of valid questionnaires from respective countries: at least one from Latvia, Estonia, Germany and Denmark, at least two from Lithuania and Finland, and at least three from Sweden and Poland







In addition a few expert interviews with scientific advisors and representatives of scientific organisations from various countries were conducted to better assess the project and the role of contact points. The results are incorporated in the analysis.

The following contains more detailed information on each type of interview:

(a) Interviews with contact points. In total eight interviews (one per country) with contact points were conducted. Each interviewee was asked nine main questions and several additional questions. They included information on institutional form of contact points, evaluation of their work, the preferable operation form of contact points, cooperation with enterprises, project's scientific organisations, other contact points, etc. For questions of interviews with contact points see annex 3.

Interviewee	Country, institution	Date
Ģirts Lejiņš	Latvia, State regional development agency	3.03.2014
Morten Christensen	Denmark, Technical University of Denmark	3.03.2014
Pasi Puhakka	Finland, Kainuun Etu Oy	3.03.2014
Tõnu Leemet	Estonia, Tartu Science Park	3.03.2014
Uwe Sassenberg	Germany, PT DESY	45.03.2014
Graham Appleby		
Krzysztof Zielinski	Poland, Foundation of Innovative Initiatives	5.03.2014
Maria Fernanda Bocangel	Sweden, Invest in Skåne	7.03.2014
Monika Kavaliauskė	Lithuania, Agency for Science, Innovation	13.03.2014
	and Technology	

*Table 1. Dates of interviews with contact points* 

(b) Interviews with approved participants of the open competitions (enterprises). In total eight interviews (one per country) with enterprises were conducted. Each interviewee was asked ten main questions and several additional questions. They included information on their experience in the competition, cooperation with scientific organisations and contact points, evaluation of their work, necessary improvements, overall evaluation of the project, development plans of enterprises, etc. For questions of interviews with participants of the open competition see annex 4.

Country, enterprise	Date
Sweden, Imaging Resources AB	25.02.2014;
	5.03.2014
Germany, Enthone Nanoscience Center	25.02.2014;
	4.03.2014
Denmark, PPG	25.02.2014
Latvia, AS "Dzintars"	28.02.2014
Estonia, Clifton SA	28.02.2014
Finaland, Ekopine	3.03.2014
Lithuania, Lutora	3.03.2014
Poland, Alwernia	10.03.2014
	Sweden, Imaging Resources AB  Germany, Enthone Nanoscience Center  Denmark, PPG Latvia, AS "Dzintars" Estonia, Clifton SA Finaland, Ekopine Lithuania, Lutora

*Tabele 2. Dates of interviews with approved participants of the open competitions (enterprises)* 





## 2. Analysis of the survey results

## 2.1. Survey of participants of the open competition

#### a. Profile of enterprises

In total 22 enterprises took part in the survey of competition participants. Most of them are Swedish (6) and Polish (4) enterprises. There is also one Latvian and one Estonian enterprise as the number of participants from these countries was smaller.

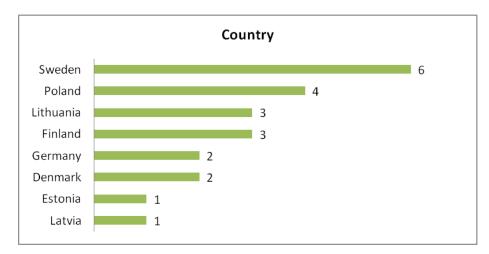


Figure 1. Number of enterprises per country

Most enterprises surveyed operate in the following sectors: materials science, construction and engineering, and chemicals. In total the survey represents six sectors of eight possible. There are no enterprises representing the sectors of nanotechnology and agriculture and food science.







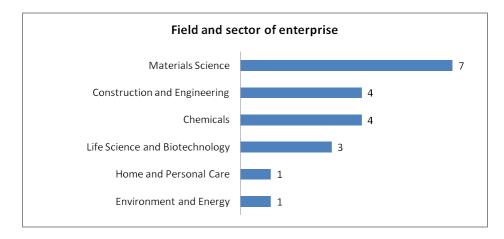


Figure 2. Number of enterprises per sector

The greatest part of them is micro enterprises (up to 10 employees). Along with small-sized enterprises they constitute two thirds of the respondents. Large-sized enterprises represent a third of all the surveyed enterprises.

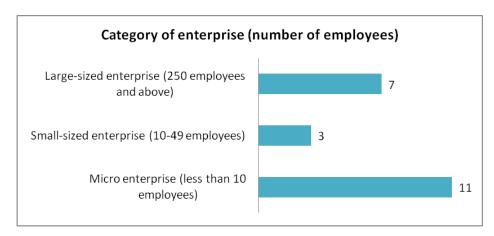


Figure 3. Number of enterprises per company size (number of employees)

Mostly private enterprises with 100% local ownership (13) and private enterprises with foreign ownership (4) have taken part in the survey.







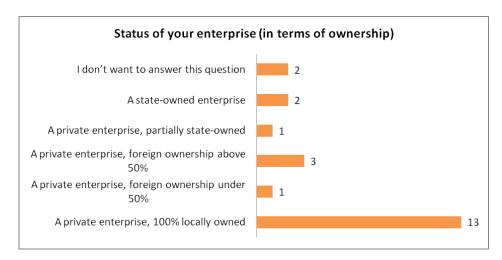


Figure 4. Number of enterprises per status

#### b. Cooperation with contact points

Most part of the enterprises (19) have had their applications approved, giving them an opportunity to use the offer of research facilities. These enterprises were asked questions on their cooperation with contact points, research facilities and their general opinion on the project.

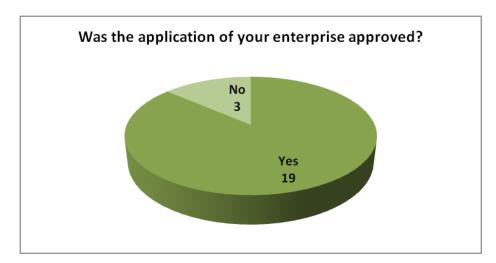


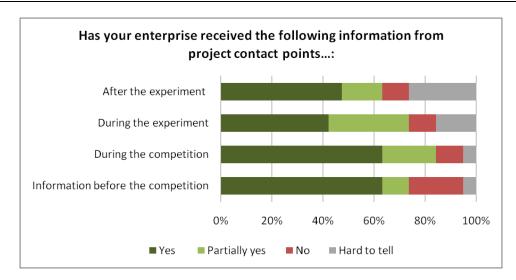
Figure 5. Number of approved/non-approved applicants

Enterprises cooperated with contact points over the whole lifetime of the project. Their communication was most intense during the competition and while preparing project applications. It was when enterprises received most information from contact points. Less frequent it was during and after experiments. This was noted as one of the project's weaknesses as enterprises encountered problems when interpreting data.









*Figure 6. Information received during the project (over various project stages)* 

The information received is mainly evaluated as rather good. Only for one enterprise it has been rather poor. It was because this enterprise has had almost no cooperation with the respective contact point and the results of experiments were delayed.

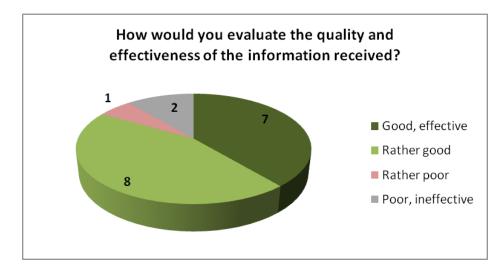


Figure 7. Quality of the information received from contact points

The general opinion is that the cooperation with contact points has been good and effective. This indicates that the quality of the information received has not had the most significant effect on their opinion on the cooperation with contact points as such factors as personal contact, frequency of cooperation, etc., have been important too.







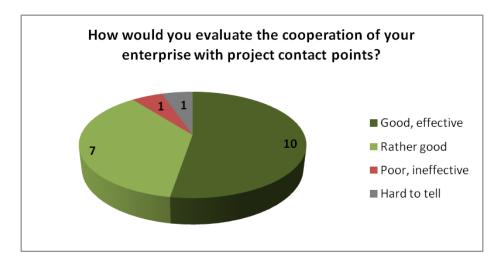


Figure 8. Opinion on the cooperation with contact points

Nearly every enterprise considers contact points being effective and providing added value to the project. This answer has been the most frequent among micro enterprises leading to the conclusion that smaller enterprises are the ones benefiting the most from contact points during preparation and implementation stages of the project. The reason for this is their lack of scientists and labs and well as the non-existent cooperation experience with foreign large-scale research facilities. The survey also showed that contact points have given more added value to the enterprises that are 100% locally owned rather than those with foreign ownership. For them scientific cooperation is nothing new.

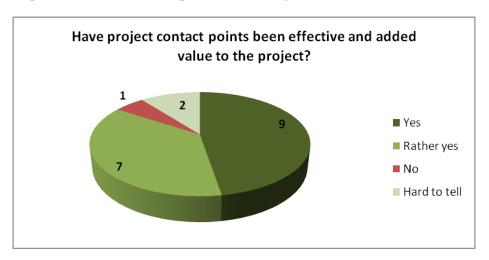


Figure 9. Effectiveness of contact points







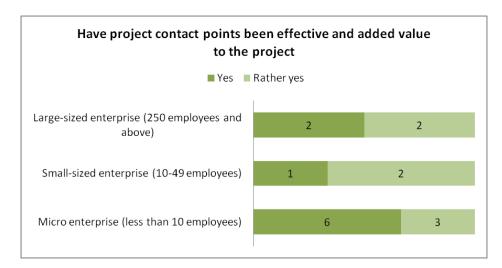


Figure 10. Effectiveness of contact points (per size of the enterprise)

The enterprises surveyed propose the following improvements regarding the way contact points operate: strengthening knowledge capacity (staff should possess better knowledge about scientific and research opportunities both in the BSR and Europe), improving advisory support (faster consultation process, more individual consultations, timely information about delays in experiments, etc.). One of the recommendations was to promote contact points, evaluate the cooperation with them in every project country (using national language).

A rather common opinion of enterprises is that contact points have been more productive when it came to providing convenient information on opportunities offered by existing large-scale research infrastructures. Less than a half of surveyed enterprises think that contact points provide it to a full extent and less than 30% agree that contact points mostly provide it. The least efficient contact points are in terms of identifying information on the needs and opinion of potential entrepreneurs. According to 26% of enterprises, contact points ensure such information a little or fail to provide it.







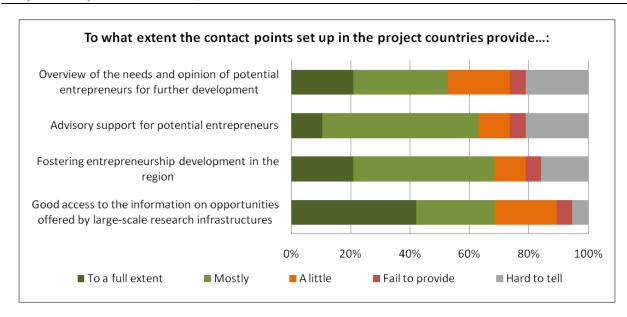


Figure 11. Activities carried out by contact points

#### c. Cooperation with research facilities and scientific organisations

Up to the date of the survey 13 enterprises (of 19 approved ones) have used the opportunities of research facilities and carried out their experiments, the experiments of three enterprises are carried out partially, and three enterprises haven't conducted their experiments.

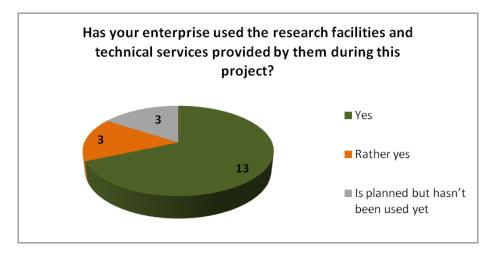


Figure 12. Number of enterprises using research facilities

The majority of enterprises have used the research facility "Deutsches Elektronen Synchrotron" (DESY) (6), "Helmholtz Zentrum Geestacht" (HZG) (4) and "Maxlab Schweden" (4).







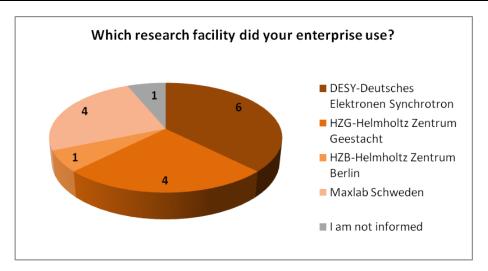


Figure 13. Research facilities used by enterprises

Enterprises using or partially using research facilities, evaluate the access to their technical services as good (10 enterprises) or rather good (5 enterprises). Only one enterprise considered the accessibility to the services of research facilities to be poor.

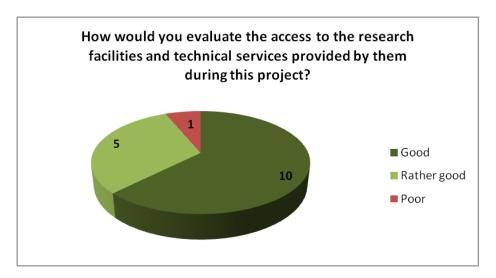


Figure 14. Access to research facilities

The majority of enterprises have received the scientific support during experiments. Less support (explaining experiment results) was received after experiments were finished. It comes down to the fact that a part of enterprises have not finished their experiments yet.







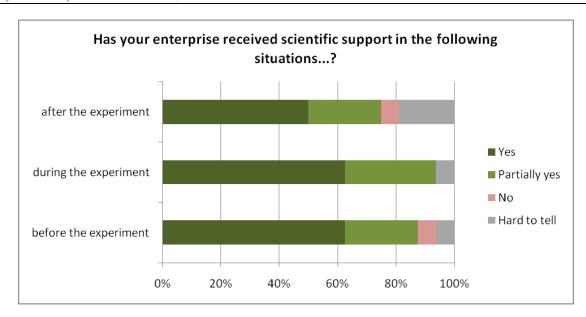


Figure 15. Receiving scientific support during various stages of experiments

The quality of support received during (also prior and after) experiments is assessed mainly as good and effective (10 enterprises) and rather effective (3 enterprises).

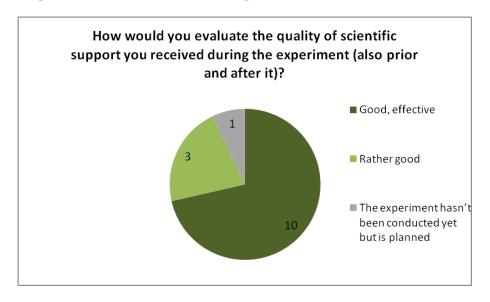


Figure 16. Opinion on the scientific support received

Therefore the general opinion (with one exception) is that the cooperation with research facilities has been good and effective (13 enterprises). The enterprise not satisfied with the cooperation encountered problems with accessibility of research facilities and delays in experiments. Enterprises with a higher number of employees have had a better experience with research. Smaller enterprises have had difficulties with interpretation and understanding of data (result of their lack of scientific staff).







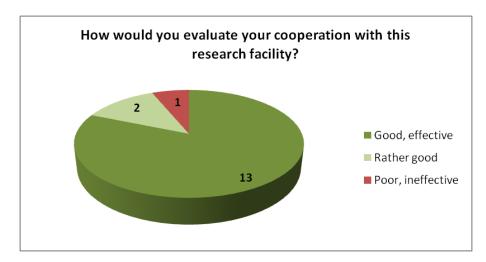


Figure 17. Cooperation with research facilities

As to the future cooperation, enterprises would like to receive more information from research facilities on preparation and conducting experiments, as well as more precise deadlines of conducting experiments and receiving results.

#### d. Benefits and plans for the future

When assessing the effects of the project on their enterprise, the most frequent answer is that the results of experiments have been effective and useful for further work and the project activities have provided new knowledge and ideas. A smaller number of enterprises agree with the statement that infrastructure has been qualitative and matched the needs of their enterprise.

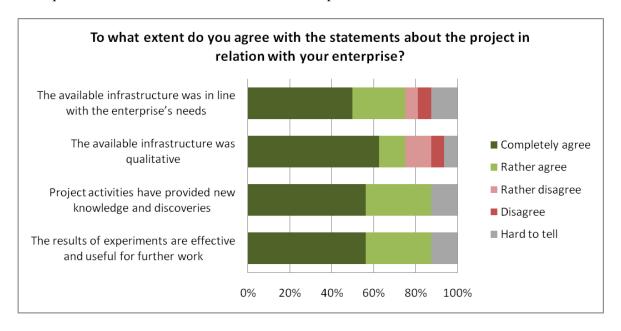


Figure 18. Impact of the project on enterprises







When assessing the experiment and its impact on the enterprise, the general opinion is that experiments have allowed for taking one or several steps towards development of a specific product and fostered the competitiveness of the product. Approx. 80% of those surveyed agree or rather agree to this.

A smaller number of enterprises agree that experiments have facilitated development of product innovations. Approx. 50% of those surveyed agree or rather agree with this statement. As development of product innovations has not been the main purpose of this project, this fact is a very good indicator showing the project has a long term impact.

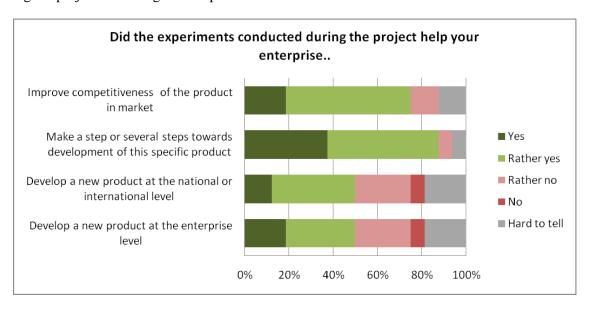


Figure 19. Impact of experiments on enterprises

As the general opinion of enterprises surveyed on the project and its impact is good then almost every enterprise believes similar projects are necessary in the future as well. Especially micro and small-sized enterprises are among those considering such projects necessary in the future. Large-sized enterprises note that similar projects are rather necessary. These differences are related to the limited funding for experiments micro and small-sized enterprises have at their disposal. This was also revealed by the interviews. Therefore such projects are a rather good contribution to their development. Large-sized companies however have their own labs or cooperate with some of them to conduct various experiments.







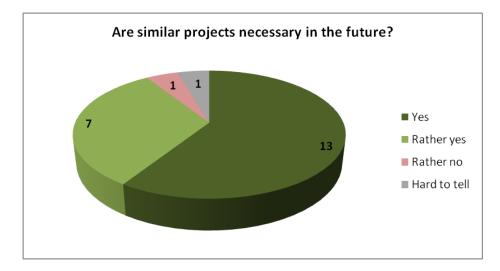


Figure 20. Necessity of the project in the future

The majority of enterprises plan to continue using research facilities and scientific support after the project is finished (8 will use them and 10 are rather convinced about using them). There is only one enterprise not planning to use scientific support. Three enterprises were not able to estimate their plans for the future. The willingness to use scientific support in the future is to a great extent related to the fact that many enterprises have been using them prior to the project as well.

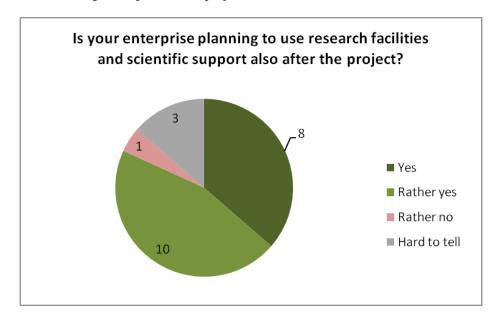


Figure 21. Plans to use research facilities in the future





## 2.2. Survey of project partners

#### a. Evaluation of the work of contact points

Just like enterprises surveyed, project partners believe that contact points provide convenient information on the opportunities offered by existing large-scale research infrastructures and foster entrepreneurship in a certain area to a great extent. They are less eager to agree to the statement that contact points provide an overview of the needs of enterprises and provide consultative support to potential entrepreneurs.

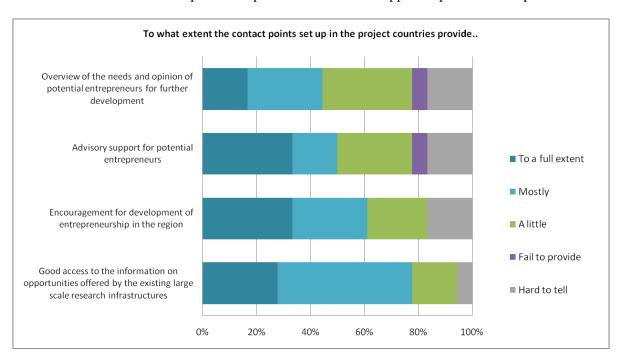


Figure 22. Activities provided by contact points

According to the majority of partners (in total 8), the operating concept developed within the project adds value to the development of entrepreneurship and science. Seven project partners note that it rather adds value. This shows that a significant part of project partners have some doubts about the project's value added to the development of entrepreneurship.







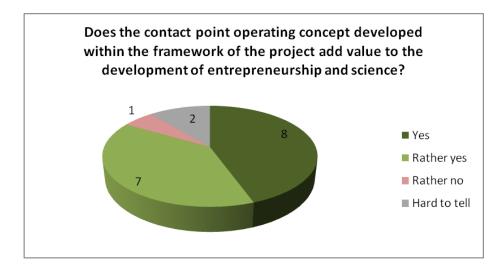


Figure 23. Added value of contact points

The Swedish contact point was the most appreciated one among project partners. The main reasons for this were as follows: number of applications and approved participants in this country, being active at project meetings, successful communication with other project partners, active communication with enterprises, being responsive and providing support. Project partners have had difficulties evaluating the work of the German contact point as it mainly received "hard to tell" answers. It could be related to the contact point's role as a project's leading partner. Therefore other partners might have not wanted to express their opinion or the contact point has been hard to evaluate because of its extensive functions.

When it comes to cooperation among partners and contact points, nine partners evaluate it as good; five as rather good but three of them consider the cooperation with contact points not successful. If compared to enterprises, the opinion of project partners is rather sceptic. It may come down to the fact that project partners experienced the need to closely cooperate with contact points less frequently than enterprises did.

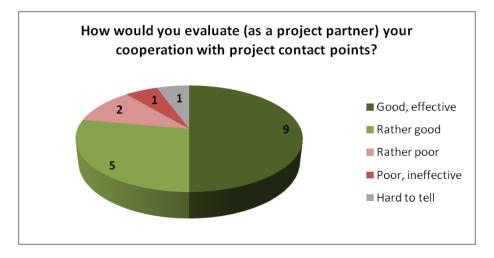


Figure 24. Cooperation with contact points







Project partners list the following as the main benefits from the cooperation with contact points: receiving valuable information about the needs of enterprises from well-respected European countries, exchange of marketing-related issues and good practice, promoting project partners, as well as valuable contact to representatives of various European institutions that are useful in the future as well.

The opinion of project partners on the cooperation with their advisor (ILO) corresponds to their opinion on their cooperation with contact points.

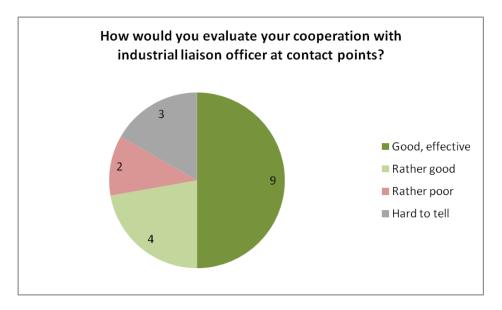


Figure 25. Opinion on the cooperation with scientific advisor (ILO)

As to the necessary improvements regarding the work of contact points, project partners have mentioned the necessity to establish a better and more detailed data base containing contacts of the potentially interested enterprises, more active and personal communication with enterprises and research facilities, improved knowledge of contact point staff about experiment technologies and research opportunities as well as better marketing skills, more active participation in activities at the national and local level, etc. Contact points are seen by the most project partners as entities being close to or being part of universities with a permanently employed scientific advisor. The advisor should have project management and marketing skills, and as act as a mediator specialising and working exceptionally with cooperation issues of enterprises and scientists. His/her remuneration should be directly linked to the amount and quality of services provided.

#### b. Evaluation of project partners

When assessing the activities carried out, project partners appreciated organising the open competition, participating in project meetings and collecting information on the offer of scientific partners. Organising and conducting surveys, organising information activities and preparing publications were however the least appreciated activities.







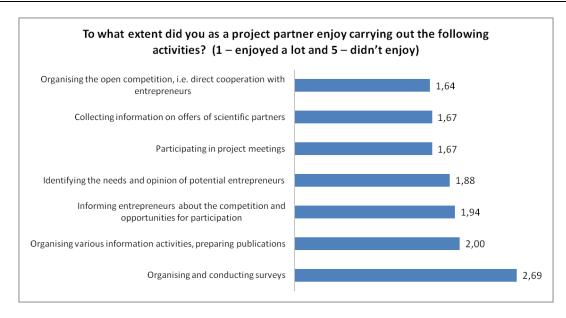


Figure 26. Opinion on the activities carried out by project partners

The cooperation with other project partners has been evaluated as good by the most project partners (10 partners). Partners believe however that cooperation could be both more intense and qualitative.

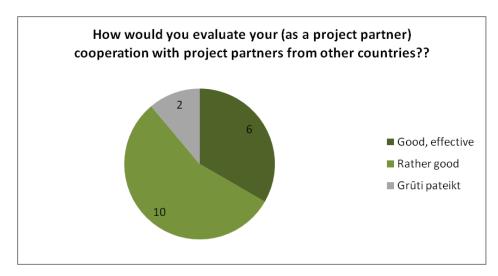


Figure 27. Cooperation with project partners

When evaluating their cooperation with enterprises, partners are more sceptic as 14 of them assess it as rather good but two as poor.







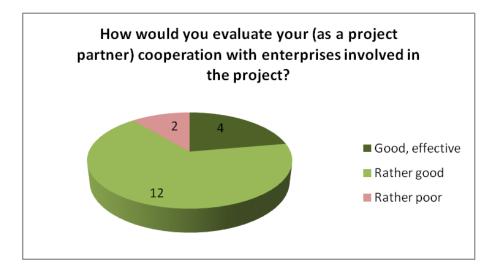


Figure 28. Cooperation with enterprises involved in the project

#### c. Project evaluation

The majority of partners evaluate the project as effective and efficient (9 partners), two partners consider it to be inefficient. This corresponds to the way the meeting of project objectives has been evaluated. The opinion of 7 partners is that the project objectives have been reached to a full extent, 10 believe that the objectives have been mainly reached and two of them think that they have been reached to some extent. This evaluation can be explained with the project partners' expectations towards the intensity and quality of the results. In general the project goals in terms of the number of participants and establishing contact points have been reached.

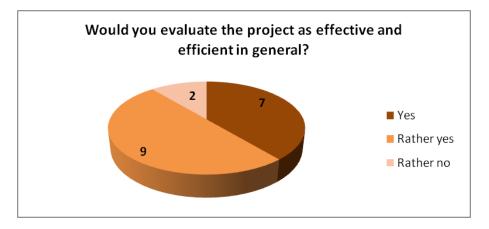


Figure 29. Effectiveness of the project







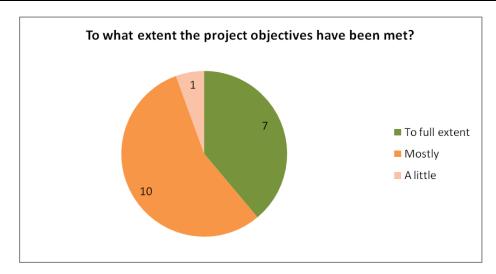


Figure 30. Meeting the project objectives

The opinion of project partners is that the project has mainly improved the exchange of information and experience in the Baltic Sea Region and provided access to research infrastructure for entrepreneurs. To a less extent it has fostered attracting investment for enterprises within municipalities, involvement of local municipalities in the activating of business environment, bringing closer municipalities to the environment of innovations and science. As the results mentioned above have a rather long-term effect, their impact at the moment is not explicit.

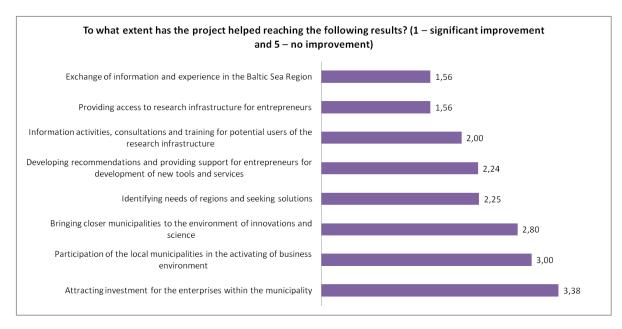


Figure 31. Reaching the project results

Project partners (more than enterprises surveyed) support the necessity of similar projects in the future. It is partially related to the fact that several partners of the project functioned as contact points too.







Therefore they are interested in being able to work as contact points in the future as well. The funding they receive as contact points is of significant importance.

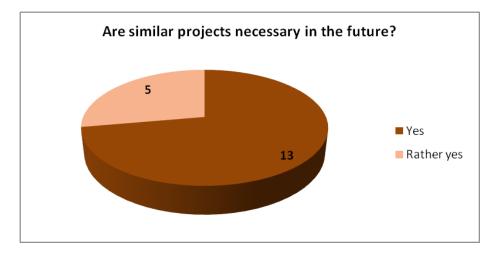


Figure 32. Necessity of the project in the future







## 3. Analysis of the interviews

#### General evaluation of the project

The general opinion of the interviewees is that the project has been efficient. Its objective has been reached both in terms of quantitative results (the planned number of participants has been exceeded) and qualitative results as the enterprises have a better awareness and knowledge about what research facilities have to offer.

It is to be expected that the project will have a long-term impact on contact points as it helped developing contacts and getting information to be used after the project as well. The project provided various knowledge and skills for contact points, i.e., how to work with enterprises and inform them in the most efficient way; what scientific organisations have to offer in the Baltic Sea Region.

Contact points evaluate cooperation and coordination within the network as good since it has had an individual approach, e.g. if an enterprise addressed a contact point expressing a certain need but there was no appropriate scientific organisation at contact point's disposal the enterprise's wish was forwarded to another contact point. Another method of cooperation was the exchange of experience among contact points. But in case a contact point was able to provide the scientific infrastructure and services needed no cooperation with other contact points was necessary.

When considering similar projects for the future enterprises noted that introducing a longer time frame would be advisable (at least 3.5 to 5 years). Projects should also comprise such activities as training staff on research issues, and contact points should offer more services. Also more universities (higher educational institutions) should be involved as the needs of enterprises towards project results are different.

#### Evaluation of the contact points and services provided by them

A network of research facilities, universities and agencies has been established within the project "Science link". Each country has chosen the most appropriate operating model depending on its tradition and cooperation experience. **Contact points operated as one of the following models:** 

- 1. As part of a scientific organisation;
- 2. As a private consulting enterprise;
- 3. As a non-profit organisation association;
- 4. As a regional investment and/or development agency (a public authority).

When evaluating contact points' work both the contact points and enterprises note that the information about available scientific infrastructure and needs of SME in the Baltic Sea Region is valuable.

Regardless of a contact point's operating model enterprises evaluate their work as good and see no need for introducing significant changes. The following strengths have been mentioned: helping establishing







contact to scientists, finding the most appropriate solution for the enterprise, planning experiments. Assistance when solving bureaucratic proceedings was especially valued.

As to the weaknesses the following was mentioned: communication problems of certain contact points resulting in a slow and complicated cooperation. As a recommendation the interviewed persons came up with the idea that the staff at contact points should be good "sales" professionals with great management and marketing skills, possessing knowledge about science. Needs of enterprises should be considered.

#### Activities carried out by contact points

Contact points carried out the following activities:

- 1. Providing information to companies about the project "Science link";
- 2. Providing consultations to enterprises over the project lifetime: information on competition, individual consultations and assistance with filling in the application form, consultations during research, etc.;
- 3. Providing information to enterprises about the available scientific and research infrastructure in the Baltic Sea Region and consulting them when deciding on the most appropriate one;
- 4. Ensuring communication between scientific organisations, research facilities and enterprises, building a local cooperation network;
- 5. Fostering development of potential projects to meet the needs of SME;
- 6. Cooperating with local policy-makers to bring issues of science and research on their agenda.

Most often enterprises have used the following services provided by contact points: various consultations, meeting experts at their organisations, assistance in preparing documentation and conducting experiments, organising conferences and promoting new opportunities. Several enterprises asked for assistance in preparing application to the competition. Enterprises benefited the most from getting contacts to the "right" staff at the research facilities and help with planning experiments.

Managing cooperation with enterprises was the most challenging task mentioned by contact points as it depended on the staff involved to a great extent. This cooperation however was mostly evaluated as efficient especially when it came to the ability of contact points to assure enterprises on the privacy of their information.

Contact points note that a timely consensus about cooperation principles and applying for research was important points that helped building effective cooperation with research facilities and scientific organisations.

The Swedish contact point (Invest in Skane) was noted as a good example to how a contact point should operate. It cooperates with scientific partners and enterprises, is linked to scientific infrastructure and has







direct contact to enterprises from the business incubator. Its diligent working style was prised. The Polish contact point was also praised by several countries which mentioned its ability to attract a rather great number of applications (and approved ones as well).

#### Contact points used the following tools to inform enterprises:

- Emails to persons from enterprises they've met before;
- Phone calls to enterprises;
- Brochures and flyers;
- Information on the web;
- Press releases and publications in mass media;
- Meeting clients in person;
- Participating in activities organised for enterprises;
- Providing information with the help of scientists and associations that already cooperate with enterprises;
- Workshops and conferences.

Meeting clients in person was noted as the most efficient tool that allowed for better networking. Also phone calls, emails and addressing enterprises via associations were evaluated as good. Brochures and flyers, as well as information on the web were described as inefficient tools. Contact points also note that information should be provided timely so that enterprises could plan their work.

Answers of the enterprises show that information about opportunities to participate in the "Science link" project was received as follows: directly from the staff of contact points, from personal contacts, from universities (higher educational institutions), from science park and technology agency, from associations. Several enterprises had found out the information about the "Science link" and decided to take part in the competition. Reasons to participate have been different but mostly it was facing challenges with company development and a limited access to scientific infrastructure.

#### Results reached

Contact points have helped increasing competitiveness of the enterprises involved in the project. The necessary number of participants has been reached with several of them expressing a high interest in scientific and research infrastructure after finishing the project as well. Enterprises are interested both in the current project and in the opportunity to participate in the competition in the future as well. Several







contact points though noted that they have expected a greater interest from the enterprises. There have been enterprises that participated in the first part of the competition but later decided to withdraw their application.

Experiments were conducted to suit the needs of companies. Most of them are finished but a few enterprises are still waiting for the results. The research results are effective, and the enterprise's objectives have been met. In a few cases further research is required and there are also cases when the research methods employed during the project haven't met the expectations of enterprises.

The results determinate what benefits the research conducted brought to enterprises. In case there are no results available the benefits of an enterprise cannot be evaluated. In several cases the staff of contact points had to take into account the fact that the research had to be conducted in a different way they had been used to – in a structured and well-managed way. Another benefit was the funding enterprises managed to save as well as the access to more expensive and state-of-art scientific infrastructure. A few enterprises indicated that the research had helped them coming up with valuable ideas, among them the necessity to change the direction in which company developed; others appreciated the revelation that they were on the right track and should keep doing their research. Dissatisfaction expressed by some enterprises can be related to their expectations of the research end-result, different understanding of terminology and interpretation of results.

#### Cooperation with research facilities and scientific organisations

The most part of enterprises have an efficient cooperation with research facilities the technologies of which were suitable for the needs of enterprises. It allowed for ensuring discussions with scientists to enhance knowledge of enterprises about conducting research at other scientific organisations. Cooperation with certain research facilities will continue after the project is finished as well since not every SME has access to scientific infrastructure and research specialists.

Cooperation was least successful with those research facilities that were overloaded with work at the moment the project was carried out and were not able to prioritise their research projects to conduct research and provide results on time. Highly valued was the ability to interpret results in a language that staff of an enterprise could understand (i.e. explaining results without using the "scientific language").

The fact that the research facilities have to also focus on the presentation and sales of their offer rather than just work on the research ordered and report the results on a regular basis was mentioned as being one of the challenges for the future. Academic staff should focus more on deadlines since enterprises need time to process and evaluate research results and make decisions regarding further action.

#### Plans for the future







Whether or not enterprises will cooperate with scientific organisations and research facilities depends on their actual needs. There are enterprises that plan on continuing their researches because the previous goals have been reached and now it is time for further steps to be taken. There are also enterprises that have no plans for the future cooperation with scientific organisations and research facilities in the near future as they see no need for that. For the third group of companies this project was only a stage of a research as they cooperate with scientific organisations on a regular basis.

Representatives of companies note that for SMEs the opportunity to use scientific and research infrastructure outside the enterprise is important as usually this kind of infrastructure is expensive and not every enterprise has a staff able to work with scientific technology.

In most cases enterprises were not able to tell whether or not the funding for science and research will be increased since at the time the interviews were conducted their budget was planned or they were waiting for decisions of investors and management regarding future direction of company's development. A few companies plan to increase funding for science and research to maintain their position in the market.

Contact points also indicate that in the future more attention should be paid to marketing and sales, as well as to improving staff's skills. As the experience of contact points with enterprises (especially small-sized enterprises) show, regional contact points should offer more services, i.e. provide training for staff of the enterprises on issues of science and research. Communication with local policy-makers and company's associations should be fostered. Also the communication between contact points and enterprises would benefit from some improvements, especially regarding the way enterprises are addressed and providing information on time.

The interviews indicate that the majority of contact points will keep up with their work as before. However some of them will change the way they operate (won't employ staff for the contact point). It means that they will provide information for interested persons on scientific infrastructure and their offer when needed. In the future contact points could operate as a one-stop-agency providing required information. Available funding has a significant role in ensuring contact points being available.

As to the future prospects, contact points note that when hiring staff the requirements for the candidates should be considered. The staff should possess project management skills, understanding about the way scientific organisations operate and the research process, as well as opportunities of scientific infrastructure. In case of having to replace staff contact points should be able to ensure information does not get lost and communication is not interrupted.







## 4. Summary and recommendations for future work of contact points

In general the **performance of contact points** has been effective as they have fostered access to information on opportunities and technical services offered by scientific organisations in the Baltic Sea Region and encouraged enterprises to make use of the scientific infrastructure. The project has also fostered the physical and financial accessibility of this infrastructure. Micro enterprises and locally owned enterprises were those getting the main benefits from the project as their level of internationalisation is traditionally lower. And the project partners appreciate the operation concept of contact points as they provide added value to the development of entrepreneurship and science.

When considering and implementing similar projects in the future, the offer of contact points should be improved by focusing on the needs of SMEs and micro enterprises. Perhaps, bringing closer contact points as entities that facilitate international scientific cooperation and SMEs tying to explore international market could be useful. Also the idea of establishing two-level contact points with specialisation either in the scientific issues of small-sized or large-sized enterprises in the countries with high population should be considered.

Cooperation among enterprises and contact points was more efficient when information was distributed, when the call for competition was launched and during the application period. But in the further stages of cooperation (during and after experiments) enterprises, especially small-sized ones, would have wished for contact points to take more active role as a link between enterprises and scientific organisations. They were expecting greater support in explaining and interpreting the results too.

Therefore strengthening the role of contact points and their staff as coordinators during and after the experiment stage is advisable. The project revealed the fact that the working and communication style of research facilities differed from what enterprises were used to therefore contact points have a potential to become a link between research facility as providers of scientific services (i.e., a research) and an enterprise as a contracting authority. Therefore strengthening the capacity of contact points to manage scientific projects by attracting permanent scientific advisors possessing excellent project management and communication skills and good understanding of scientific environment would be beneficial.

As the surveys and interviews show, the **Swedish contact point model** has been the most successful one. Its strengths were possession of an extensive network of enterprises and being linked to universities and research facilities, as well as its individual approach and quick problem-solving.







The experience of Swedish contact point can be used to design contact points as entities open and accessible to enterprises. Contact points would also benefit from cooperation with a financial services organization responsible for fundraising. Also close cooperation with universities (higher education establishments) and scientific organisations to ensure regular offer for SMEs (bridging science and entrepreneurship) is advisable. But most importantly, contact points would benefit from being located within an institution directly involved in business and investment promotion so they would be linked to business environment, have understanding of the needs of entrepreneurs and be able to provide regular cooperation (with entrepreneurs and scientific organisations).

Enterprises evaluate the experiments conducted as important for their future development and effective. **Cooperation with research facilities and scientific organisations** has given new knowledge and ideas on how to take a step or several steps towards development of a product. Their role in developing project innovations received less praise but it was still significant.

In the future the role of contact points in fostering innovation of enterprises working together with research facilities could be intensified by starting cooperation at an early stage and continuing it after the scientific experiment is done.

Both enterprises and project partners see the contact points established within the project countries as entities providing **convenient information** on opportunities offered by large-scale research infrastructures. The main benefits for project partners are as follows: valuable information on the needs of enterprises from well-respected European countries, exchange of knowledge and experience on marketing related issues, establishing new contacts and networking. The benefits of enterprises along with getting information are the actual results of cooperation with scientific organisations and research facilities. The "indirect benefits" of the project (contacts, cooperation network) is what should be emphasised as they have a long-term impact on internationalisation and fostering networking.

Therefore it is advisable to design contact points as important players having extensive knowledge about what European research facilities have to offer in terms of technologies available and research opportunities, as well as having an insight in the needs of countries or specific regions and maintain contact to others. For this purposes more detailed and improved data bases containing information on offer of research facilities should be created and contact points should take more active part in the activities carried out to provide support for entrepreneurship at the local and national level. This would help keeping entrepreneurs informed and enlarge the number of contacts that contact points have.







#### What does an ideal contact point look like?

Surveys of project partners and enterprises, as well as the results of interviews helped coming up with a series of recommendations for establishing an "ideal" contact point:

- Contact points should function as an open and accessible institution working together with entrepreneurs and scientific institutions, bridging science and enterprises (both large-sized and small-sized ones). It should be able to provide a special offer for small-sized enterprises.
- It is advisable that contact points cooperate with a financial authority to ensure fundraising.
- Collecting information on a great number of research facilities, their technical opportunities and offer would help making services of contact points wider.
- Working closely together with universities (higher education establishments) and scientific organisations would allow for providing offers for SMEs (bridging science and entrepreneurship) on a regular basis. Beneficial would be locating a contact point within an institution supporting entrepreneurship and attracting investment for the area.
- Small labs should be a part of a contact point providing opportunities to conduct preliminary tests before transferring to bigger labs.
- The staff of contact points should monitor the cooperation between enterprises and scientific organisations during and after experiments to help interpret the results and understand scientific terminology.
- There should be meeting rooms within the facilities of contact points.
- The staff of contact points should possess good marketing and sales skills, a vision for the future, be open to cooperation, have knowledge about scientific issues and the way enterprises function. This would allow for defining cooperation and establishing mutual contact. A scientific advisor with project management skills and understanding about scientific environment is needed as well.
- To ensure a better capacity of contact points regular experience exchange and a common training are needed.







# **ANNEXES**







#### ANNEX 1

#### Questionnaire for project partners

"AC Konsultācijas", ltd. at the request of State Regional Development Agency (Latvia) is carrying out the evaluation of the BSR project contact points and their network. The evaluation includes a survey of project partners which aims at finding out the opinion of project partners about the way contact points operate, their cooperation with other project partners, contact points and participants of the open competition.

Therefore we kindly ask you to fill in the questionnaire and answer the following questions.

It will take up 10-15 minutes of your time. Your answers will be analysed in an aggregated way.

#### 1. To what extent the contact points set up in the project countries provide..?

	Significantly	Mostly	A little	Fail to	Hard to
				provide	tell
1.Good access to the information on	1	2	3	4	9
opportunities offered by the existing large					
scale research infrastructures					
2.Encouragement for development of	1	2	3	4	9
entrepreneurship in the region					
3. Advisory support for potential	1	2	3	4	9
entrepreneurs					
4. Overview of the needs and opinion of	1	2	3	4	9
potential entrepreneurs for further					
development					

# 2. Please evaluate the contribution of each country's contact points in terms of achieving project objectives. Rate them using a scale of 1 to 7 (1 being excellent, 7 weak)

	1	2	3	4	5	6	7	Hard
	(excellent)						(weak)	to tell
1.Germany	1	2	3	4	5	6	7	9
2.Finland	1	2	3	4	5	6	7	9
3.Estonia	1	2	3	4	5	6	7	9
4.Latvia	1	2	3	4	5	6	7	9
5.Lithuania	1	2	3	4	5	6	7	9
6.Poland	1	2	3	4	5	6	7	9
7.Sweden	1	2	3	4	5	6	7	9
8.Denmark	1	2	3	4	5	6	7	9

3. Please specify why did you evaluate the contribution of a contact point as good and excellent (for the	se
marking the answer options 1 and 2 in the previous question)!	







# 4. Does the contact point operating concept developed within the framework of the project add value to the development of entrepreneurship and science?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9

#### 5. How would you evaluate your cooperation with industrial liaison officer at contact points?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9

#### 6. How would you evaluate (as a project partner) your cooperation with project contact points?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9

<b>7.</b> Did	l your	organisation	benefit from	the cooperation	n with c	ontact points?	How?
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## 8. What should be improved in the way contact points operate?

#### 9. How would you evaluate your (as a project partner) cooperation with enterprises involved in the project?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9







# 10. How would you evaluate your (as a project partner) cooperation with project partners from other countries?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9

# **11.** To what extent did you as a project partner enjoy carrying out the following activities? Please evaluate them using a scale of 1 to 5, 1 being – enjoyed a lot, 5 – didn't enjoy.

	1 (enjoyed a lot)	2	3	4	5 (didn't enjo)y	9 (hasn't been carried out)
1.Collecting information on offers of scientific partners	1	2	3	4	5	9
2.Identifying the needs and opinion of potential entrepreneurs	1	2	3	4	5	9
3.Organising the open competition, i.e. direct cooperation with entrepreneurs	1	2	3	4	5	9
4.Informing entrepreneurs about the competition and opportunities for participation	1	2	3	4	5	9
5. Participating in project meetings	1	2	3	4	5	9
6.Organising various information activities, preparing publications	1	2	3	4	5	9
7.Organising and conducting surveys	1	2	3	4	5	9

# **12.** To what extent has the project helped reaching the following results? Please evaluate it using a scale of 1 to 5 (1 being – significant improvement, 5 – no improvement)

	1 (significant improvement)	2	3	4	5 (no improvement)	Hard to tell
1 Dantinium tion of the level	1	2	3	4		9
1.Participation of the local	1	2	3	4	5	9
municipalities in the activating of						
business environment						
2.Bringing closer municipalities to the	1	2	3	4	5	9
environment of innovations and science						
3.Attracting investment for the	1	2	3	4	5	9
enterprises within the municipality						
4.Developing recommendations and	1	2	3	4	5	9
providing support for entrepreneurs for						
development of new tools and services						
5.Information activities, consultations	1	2	3	4	5	9
and training for potential users of the						
research infrastructure						
6.Identifying needs of regions and	1	2	3	4	5	9
seeking solutions						







	1 (significant	2	3	4	5 (no	Hard
	improvement)				improvement)	to tell
7.Providing access to research	1	2	3	4	5	9
infrastructure for entrepreneurs						
8.Exchange of information and	1	2	3	4	5	9
experience in the Baltic Sea Region						

#### 13. Would you evaluate the project as effective and efficient in general?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9

#### 14. To what extent the project objectives have been met?

To full extent	1
Mostly	2
A little	3
Failed to meet	4
Hard to tell	9

#### 15. Are similar projects necessary in the future?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9

#### Please provide some information about yourself

#### 16. Project partner:

Deutsches Elektronen-Synchrotron, Academic/scientific institution	1
(DESY)	
Helmholtz-Zentrum Berlin für Materialien und Energie GmbH	2
Helmholtz-Zentrum Geesthacht Zentrum für Material ind	3
Küstenforschung	
Kainuun Etu Oy	4
Turun Yliopisto	5
Tartu Teaduspark	6
Tartu Ülikool	7
Valsts reģionālās attīstības aģentūra	8
Latvijas Universitātes Cietvielu fizikas institūts	9
Rīgas Domes Pilsētas Attīstības Departaments	10
Mokslo, inovacijų ir technologijų agentūra	11







FIZINIŲ IR TECHNOLOGIJOS MOKSLŲ CENTRO Puslaidininkių fizikos instituta	12
Institute of Physics, Polish Academy of Science	13
Fundacja Inicjatyw Innowacyjnych	14
Investin Skane	15
Lunds Universitet	16
Danmarks Tekniske Universitet	17
Other (please specify!)	18







#### **ANNEX 2**

#### Questionnaire for participants of the open competition

"AC Konsultācijas", ltd. at the request of State Regional Development Agency is carrying out the evaluation of BSR project "Science Link" contact points and their network assessment. The evaluation includes a survey of participants of the open competition which aims at finding out the opinion of participants on the work of contact points, cooperation with them and scientific organisations involved in the project.

Therefore we kindly ask you to fill in the questionnaire and answer the following questions.

It will take up 10-15 minutes of your time. Your answers will be analysed in an aggregated way.

Thank you for your time!

#### 1. Was the application of your enterprise approved?

Yes	1	To question 2
No	2	To question 17

#### 2. Has your enterprise received the following information from project contact points...?

	Yes	Partially	No	Hard to
		yes		tell
1. Information before the competition	1	2	3	9
2. During the competition	1	2	3	9
3. During the experiment	1	2	3	9
4. After the experiment	1	2	3	9

A question for those marking the option "yes" in the previous question.

#### 3. How would you evaluate the quality and effectiveness of the information received?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9

#### 4. To what extent the contact points set up in the project countries provide...:

	To a full extent	Mostly	A little	Fail to provide	Hard to tell
1.Good access to the information on opportunities offered by large-scale research infrastructures	1	2	3	4	9
2.Fostering entrepreneurship development in the region	1	2	3	4	9
3. Advisory support for potential	1	2	3	4	9







	To a full extent	Mostly	A little	Fail to provide	Hard to tell
entrepreneurs					
4. Overview of the needs and opinion of	1	2	3	4	9
potential entrepreneurs for further					
development					

### 5. How would you evaluate the cooperation of your enterprise with project contact points?

Good, effective	1	
Rather good	2	
Rather poor	3	
Poor, ineffective	4	
There has been no cooperation	5	To question 8
Hard to tell	9	

6. What (if any) should be improved in terms of cooperation among enterprises and c	d contact poir	nts?
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#### 7. Have project contact points been effective and added value to the project?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9

# 8. Has your enterprise used the research facilities and technical services provided by them during this project?

Yes	1	
Rather yes	2	
No	3	To question 17
Is planned but hasn't been used yet	4	To question 17

#### 9. Which research facility did your enterprise use?

DESY-Deutsches Elektronen Synchrotron	1
HZG-Helmholtz Zentrum Geestacht	2
HZB-Helmholtz Zentrum Berlin	3
Maxlab Schweden	4
I am not informed	9

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## 10. How would you evaluate your cooperation with this research facility?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
Hard to tell	9

# 11. How would you evaluate the access to the research facilities and technical services provided by them during this project?

Good	1
Rather good	2
Satisfactory	3
Rather poor	4
Poor	5
Hard to tell	9

#### 12. Has your enterprise received scientific support in the following situations...?

	Yes	Partially yes	No	Hard to tell
1. before the experiment	1	2	3	9
2. during the experiment	1	2	3	9
3. after the experiment	1	2	3	9

A question for those marking the option "yes" in the previous question.

# 13. How would you evaluate the quality of scientific support you received during the experiment (also prior and after it)?

Good, effective	1
Rather good	2
Rather poor	3
Poor, ineffective	4
The experiment hasn't been conducted yet but is planned	5
Hard to tell	9

#### 14. What should be improved in terms of cooperation with scientific organisations?







#### 15. Did the experiments conducted during the project help your enterprise..:

	Yes	Rather yes	Rather no	No	Hard to tell
1.Develop a new product at the enterprise level	1	2	3	4	9
2.Develop a new product at the national or international level	1	2	3	4	9
3.Make a step or several steps towards development of this specific product	1	2	3	4	9
4.Improve competitiveness of the product in market	1	2	3	4	9

#### 16. To what extent do you agree with the statements about the project in relation with your enterprise?

	Completely agree	Rather agree	Rather disagree	Disagree	Hard to tell
1.The results of experiments are effective and useful for further work	1	2	3	4	9
2.Project activities have provided new knowledge and discoveries	1	2	3	4	9
3.The available infrastructure was qualitative	1	2	3	4	9
4.The available infrastructure was in line with the enterprise's needs	1	2	3	4	9

#### 17. Is your enterprise planning to use research facilities and scientific support also after the project?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9

#### 18. Are similar projects necessary in the future?

Yes	1
Rather yes	2
Rather no	3
No	4
Hard to tell	9







#### Please describe your enterprise

#### 19. Country

Denmark	1
Finland	2
Latvia	3
Poland	4
Estonia	5
Germany	6
Lithuania	7
Sweden	8

#### 20. Name of the enterprise

21. Your project title		

#### 22. Please mark the field and sector your enterprise operates in!

Agriculture and Food Science	1
Chemicals	2
Construction and Engineering	3
Environment and Energy	4
Nanotechnology	5
Materials Science	6
Life Science and Biotechnology	7
Home and Personal Care	8

#### 23. Please mark the category of your enterprise (number of employees)

Micro enterprise (less than 10 employees)	1
Small-sized enterprise (10-49 employees)	2
Medium-sized enterprise (50 - 249 employees)	3
Large-sized enterprise (250 employees and above)	4

# **24.** Please mark the status of your enterprise (in terms of ownership) (*Please mark only one, the most appropriate option*)

A private enterprise, 100% locally owned	1
A private enterprise, foreign ownership under 50%	2
A private enterprise, foreign ownership above 50%	3

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A private enterprise, partially state-owned	
A state-owned enterprise	5
Other (please specify!)	6
I don't want to answer this question	9







#### **ANNEX 3**

#### Questions for the interviews with project contact points

- 1. Please tell me about the institutional form (status) of your contact point and your (as a contact point) responsibility in this project!
  - a. Please tell me what were your main responsibilities and what have you achieved during this project?
- 2. How would you evaluate your work and achievements within the project?
  - a. What went well and what didn't?
  - b. What (if any) should be changed in the future?
- 3. Describe your ideal contact point, its form and the way it should operate to foster international cooperation in areas of science and entrepreneurship!
  - a. Can you name a contact point which proved to be a good example for others? Why?
  - b. Which aspects of its work would you recommend to introduce in other contact points?
- 4. How did you inform the potential participants about the opportunity to take part in the open competition?
  - a. What media and tools did you use?
  - b. What is your opinion on these media, tools? Which ones were the most efficient?
- 5. Please describe your cooperation with the participants of the open competition!
  - a. What support did you provide for them?
  - b. What services, opportunities did they use mostly?
  - c. What is your opinion on the consulting process?
  - d. Was this cooperation efficient and effective?
- 6. Please describe the cooperation and mutual coordination within the network of project contact points!
- 7. Please describe the cooperation with scientific organisations of the project!
- 8. How would you evaluate the overall effectiveness and efficiency of the project?
  - a. To what extent the objectives and plans have been reached?
  - b. How did you as a contact point benefit from this project?
  - c. What would you recommend for similar projects in the future?
- 9. What are your forecasts for the future in terms of further development and work of your contact point (after the project)?
  - a. Will the contact point continue its work? In what form?
  - b. What (if any) will be different than now?







#### **ANNEX 4**

#### Questions for the interviews with participants of the open competition (approved participants)

- 1. Please tell us how did your enterprise decide to participate in the open competition?
  - a. Where did you find out about the competition?
- 2. Please share your experience with performing experiments in the research facility!
  - a. What was the research and development object of your enterprise?
  - b. What are the results?
- 3. Did your company benefit from these experiments in the research facility (in terms of company development)? How?
- 4. How would you describe your cooperation with project's scientific institutions?
  - a. How would you evaluate the technologies available and scientific support?
  - b. How would you evaluate the consulting process?
  - c. What are the main benefits from the cooperation?
  - d. What should be improved?
- 5. How would you describe your cooperation with the project contact points?
  - a. What services provided by the contact points did you use?
  - b. What are your main benefits from the cooperation with the contact points?
  - c. Were there any faults?
- 6. What is your overall opinion on the contact points?
  - a. What are their weaknesses?
  - b. What are their strengths?
- 7. What (if any) should be changed or improved in the way contact points operate?
- 8. What is your overall opinion on the project and its course?
  - a. What are your personal gains from it?
  - b. What would you recommend for similar projects in the future?
- 9. Do you plan to cooperate with scientific organisations after the project? Why?
  - a. If yes, how often and when?
- 10. Does your enterprise plan to increase funding for research, i.e. for cooperation with scientific institutions? Why?