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## **Exploratory Team Report on Knowledge sharing through improved research-industry cooperation**

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## 1. Identification of a challenge and the benefit of trans-national cooperation to address it

The need to improve research-industry cooperation in Europe is a recurrent issue. The key question is indeed “how”? Over the last 25 years, a lot has been said and written but less has been done to bring closer research and industry. The gap between the two “worlds” remains and is in such a gap that much of the competitiveness of a region, country or Europe as a whole is played.

The traditional ways to try to overcome the gap have been through the sole use of gravity. Research is defined as a top of the agenda priority and research organisations are heavily financed in the hope that some of its results will eventually fall into industry. This is a method still in use in several countries and regions, where research centres get framework financing for carrying out research activities in their own, without major industry involvement and that is obviously very popular amongst the academic and scientific community.

But with innovation and competitiveness becoming a priority a result of the Lisbon agenda, and of the increase globalization and openness of the markets pressure, industry priorities are at least leveraged with those of the scientific community and gravity doesn’t work anymore. The only way to overcome a gap that is nevertheless still there seems to be to push from one side and to pull from the other, and this is the trend that most countries and regions have been following.

On the push side, trying to bring research closer to industry, we have specially seen the promotion and development of Technology Transfer Offices and other interface bodies within universities. While a country as Spain has a network of OTRI (Offices for the Transfer of Research Results) since 1989 its neighbour Portugal has followed with a similar initiative only in 2006. Most countries are also addressing the issue of academic staff incentives and career progression schemes, trying to strengthen the impact of conducting project with industry and patenting results in researchers’ career, as an alternative to scientific paper publication, but in most countries negotiations with researchers’ representatives on the subject haven’t been easy.

More recently, we’ve also seen the development of incubator’s and spin-offs promotion mechanism in universities, as a way for universities to “create their own” industry. While the success of such measures has varied significantly across Europe, in general it hasn’t contributed to significantly reduce the gap towards “traditional” industry.

On the pull side, trying to “force” industry to a stronger involvement with the research community, we have in particular seen the spreading of tax incentives for research and innovation schemes across Europe – often requiring or maximising the research in cooperation with research bodies – and also the creation of mechanisms for supporting the creation of R&D structures within companies.

While contributing to spread bridges across the omnipresent gap between research and industry, such measures taken over the last years have not yet significantly reduced its width, and the challenge remains open. Bridging the gap in research-industry cooperation at trans-national level has traditionally been a hoped-for outcome from the financing of research organizations. As demonstrated above there is need for more active policy intervention to fill the gap as funds are finite and innovation by its very nature is ad hoc and unpredictable – a clashing of atoms may or may not produce a strong result.

There remains a need to bridge the gap by enabling the “push – pull” dynamic, and challenges for policy intervention at transnational level have been identified in the following domains:

1. **Re-think the model of Industry-oriented research organizations**, along the lines of the “Centres of Competence” initiatives that have spread around Europe;
2. Periodically **assess the performance of universities and research organizations as regards cooperation with industry, using peer-review mechanisms** as suggested by the CREST Expert Group Final Report from March 2006;

3. **Promote the adoption of “Codes of Conduct” on IPR ownership** amongst research and industry, and in particular SMEs, as a way to facilitate the dialogue and cooperation amongst them.

#### **1) Re-think the model of Industry-oriented research organizations**

A growingly popular solution for the “research-industry” gap problem is inducing both sides to find common ground to meet, and share objectives. As a result of policy intervention in this direction, “Centre of Competence” initiatives have recently spread in Europe (actually covering 12 countries) as a way to “fill the research-industry” gap, instead of bridging it.

Competence Centres are long term (in Sweden 10 years) establishments and/or joint ventures within Universities and research institutes with a proven track record in need driven research and development, and counting on industry participation. Their purpose is to perform scientifically high quality research which at the same time is very useful to participating companies. The research is multidisciplinary and carried out with large involvement by leading industry researchers. The scheme comes originally from US, is today implemented in several European countries and addressed in a MAP program as well in an ERANET (COMPERA).

*How could trans-national cooperation contribute to the resolution of the problem?*

Competence Centres have proven well in countries as Sweden and Austria, and have since been “exported” to other countries such as Estonia or Hungary. Further exchange of good practices at trans-national level that may lead to the “export” of the model to other countries, could and should be encouraged. Furthermore, considering the number of Centres of Competence already created in Europe (28 alone in Sweden and 20 in Austria) trans-national cooperation between Centres of Competence from different countries should also be strongly encouraged, in areas as joint cooperative research, but also mobility of researchers and evaluation of results.

The support to the creation of new and trans-national Centres of Competence, in areas where research competences are less developed, could also be envisaged – see the example of the new International Iberian Nanotechnology Laboratory, created by a joint decision of the heads of government of Spain and Portugal. It is expected to host some 200 researchers and to spend an operational budget of EUR 30 million. It will be located in the Portuguese city of Braga, and directed by a Spanish researcher.

The same measure could be taken e.g. in New Member States, as suggested in the European Commission Report “Innovation and Research Systems - Future Challenges for the knowledge infrastructures of EU candidate countries”<sup>1</sup> where it is mentioned that “*International and regional networking is increasingly becoming an essential means of staying abreast of research developments and acquiring expertise. Support for common projects with foreign partners can contribute to profiling areas of excellence and competence and could lead to the establishment of regional multinational research centres with international teams actually based in Pre-accession countries laboratories*”.

*What would be the added value to solve this problem through trans-national cooperation?*

The success achieved so far by Centres of Competence in Sweden and Austria, show that there is potential for sharing such good practices at trans-national level, with the aim to implement similar measures in other countries.

At a more ambitious level, the already significant number of existent Centres of Competence in Europe provides the basis for networking and cooperation amongst them. This could facilitate access of such Centres to critical mass both in terms of initial funding, access to researchers and potential client basis.

Finally, in regions where existent research offer is deemed to be insufficient to meet industry demand, trans-national cooperation could facilitate the creation of new Centres of Competence from scratch, as in the International Iberian Nanotechnology Laboratory example.

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<sup>1</sup> “Innovation and Research Systems - Future Challenges for the knowledge infrastructures of EU candidate countries Knowledge Economy Forum”

Using Knowledge for Development in EU Accession Countries, Paris, 19-22 February 2002, Ken Ducatel & Elissaveta Gourova, JRC/ IPTS, European Commission, Sevilla

## **2) Assess research-industry cooperation performance**

If we want research-industry cooperation to be improved, than the actual performance of such cooperation must be assessed. On the side of Universities and Public research bodies, such performance assessment is clearly a governmental responsibility and should become a regular policy.

It is therefore important to take governments to endorse the recommendations that resulted from the report of the CREST group<sup>2</sup> on the subject of “*Encourage the reform of public research centres and universities, in particular to promote transfer of knowledge to society and industry*”, namely on the performance assessment on how universities are performing in terms of market oriented RTD, the links with industrial companies, knowledge exchange, commercialisation of research and start ups. A peer-review model is suggested for this performance assessment, and such a model has already been implemented in Sweden as a pilot, using an international panel of peers, that are scholars, industrialists, practitioners and policy makers with international reputation. The same model could be transferred to other countries.

*How could trans-national cooperation contribute to the resolution of the problem?*

Performance assessment implies an availability of structured information from the side of universities and Public Research Organisations (PROs), which is not present at the moment in the vast majority of organizations. A dataset has been established by ProTon Europe as part of the project funded by DG Enterprise<sup>3</sup> and discussions are underway to incorporate other data collection activities such as that undertaken by ASTP as well as to ensure comparability with the respected but narrow (confined to technology transfer) AUTM survey in the USA. This survey has operated now for 3 years with growing engagement by universities and PROs but it still suffers from a lack of understanding and sharing of common standards and internal issues with the collection of structured data within the institutions. This is best achieved by personal interactions between international experts and those who are collecting and collating the data. Cooperation at trans-national level can facilitate this task, and contribute to set standards for the information to be collected, and facilitating the interchange of peers with international reputation across the different systems to be assessed.

*What would be the added value to solve this problem through trans-national cooperation?*

In order to be able to carry out a peer-review using international peers, and to be able to benchmark the results at EU level, a common approach must be used for the performance assessment.

Trans-national cooperation at this level will facilitate the setting of standards for structuring information in universities and PROs and the implementation of peer-review schemes using peers of international reputation across different systems and enabling the European benchmarking of results.

## **3) Better communication between research and industry as concerns IPR ownership**

In this arena the issues identified most often concern communication; the research provider has certain preconceptions and expectations, particularly around ownership of IP, and the industry – and in particular SME’s - also has preconceptions and expectations neither meet easily in common understanding. As a result SME’s which do not have the capacity to engage in an in-depth exercise to understand each and every potential research provider may abandon attempts to “pull” and may come to question their ability to absorb new IP and thus to grow. One very clear example of the impact of this communication is the unsatisfactory level of deal – flow from European research providers as a whole, in particular deals with mid-sized and small companies.

There have been some limited policy initiatives to address this communication issue, many of which have failed because, for one reason or another, one of the partners in this process believes that they cannot secure an

<sup>2</sup> Report of the CREST Expert Group on: “Encourage the reform of public research centres and universities, in particular to promote transfer of knowledge to society and industry”, March 2006.

<sup>3</sup> Contract IPS-2000-1104

acceptable deal. What is actually required is some understanding of what might be an acceptable deal for all parties, either within or across borders.

Much has been done by individual research providers, to try to bridge the communication gap. The recent significant growth of Knowledge Transfer Officers acting as intermediaries between researchers and industry have done much to create greater understanding. This activity however is resource intensive, depending as it does on the interaction of people to initiate and negotiate the issue of each deal. SME's often do not have the resource to engage effectively with this process.

Individual TTOs and TTO networks have either produced Lambert-style<sup>4</sup> documents or frameworks (Germany, Switzerland), or have used the Lambert documents themselves (Netherlands). Thus, where no formal national frameworks exist, the spread of good practice through Europe can result in the adoption of practices which are seen to have positive benefit.

*How could trans-national cooperation contribute to the resolution of the problem?*

It is clear that national policies on IPR ownership rules across Europe are currently not aligned; indeed within several states, such as Germany and Belgium, regions within the states adopt quite distinct approaches toward IP management in PROs. In Belgium for example, ownership of IP produced by researchers within the university in the Dutch regions is retained by the institution, however in the French regions IP ownership is ambiguous, with university policies determining the fate of IP. Such differences in fate of IP produced within research programmes make a standard national approach to industrial collaborations impossible.

What is needed is a European wide shared understanding of expectations, particularly expectations around ownership of IP. To achieve this policy formulation and implementation at trans-national level is required.

*What would be the added value to solve this problem through trans-national cooperation?*

The adoption of a common language as regards IPR ownership at a trans-national level would certainly facilitate the ability of smaller companies to interact with the most appropriate research provider, wherever they were located. In short, it would facilitate company growth through enabling development of the absorptive capacity; it would speed up, and increase the volume of deal flow.

**Main Conclusions:**

**Yes**, there are major challenges to be addressed, and trans-national cooperation may help to solve it:

- Re-think the model of Industry-oriented research organizations, along the lines of the “Centres of Competence” initiatives that have spread around Europe;

<sup>4</sup> Lambert Agreements have been developed in the UK (info on: <http://www.auril.org.uk/press/LambertModAgree>)

The Lambert Review followed several rounds of discussion in the UK between the Association of University Research/Industry Links (AURIL), the government and Confederation for British Industry (CBI), which had produced the AURIL/CBI guide on how to approach collaboration in 1997. The Review had noted the problems occurring in setting up university-industry collaborations and had suggested several mechanisms and guidelines which would facilitate more successful collaborations and interaction between the parties.

As a direct consequence of the review, a working group was set up which was chaired by Richard Lambert and included the CBI, SBS and the universities, represented by AURIL and some individuals to design 5 “standard contracts” which would determine the nature of the interactions which could exist between the parties.

The working group designed 5 standard contracts, with the terms adjusted according to elements such as background IP position, funding and source of research proposal. These elements would determine terms relating to IP ownership and rights. Most significantly, the contracts define IP ownership as the default position.

It was felt that the independence of the group (Richard Lambert having an industrial background and now head of the CBI) allowed this to be widely accepted by industry.

- Periodically assess the performance of universities and research organizations as regards cooperation with industry, using peer-review mechanisms as suggested by the CREST Expert Group Final Report from March 2006;
- Promote the adoption of “Codes of Conduct” on IPR ownership amongst research and industry, and in particular SMEs, as a way to facilitate the dialogue and cooperation amongst them.

## 2. Type of activities to be developed at trans-national level

### **For challenge a) Re-think the model of Industry-oriented research organisations**

Cooperation at trans-national level within this challenge can be envisaged at three different levels, with growing levels of complexity and ambition:

- at a first level, trans-national cooperation can be sought at the level of sharing and transfer of good practice as, e.g., the Centres of Competence;

This type of cooperation has already been implemented e.g. between Austria and Estonia, resulting in the transfer of the model from one country to another; similar cooperation schemes can be envisaged, involving those countries where the experience is more developed (Sweden, Austria) and other countries / regions, with a strong scientific basis and high industry demand for research services, and where the model could be implemented;

- at a second level, trans-national cooperation between existent Centres of Competence could be fostered;

Trans-national cooperation can be envisaged in areas such as: joint cooperative research projects, involving Centres of Competence and Industrial users from different countries /regions; mobility of researchers between Centres of Competence; evaluation of results by trans-national teams.

- finally at third level, trans-national cooperation could be expected for the development of new Centres of Competence of a trans-national nature, in particular in trans-border regions;

In some areas and/or technological sectors where local research capacity is not sufficiently developed to meet industrial demand, new competences can be created by means of trans-national cooperation, and can provide good results by easily gathering the critical mass and reducing the time needed for what is otherwise a massive and lengthy investment.

This has been the case of the already mentioned example of the new R&D Institute, the International Iberian Nanotechnology Laboratory, promoted between Portugal-Spain, in an area (Northwest of Iberian Peninsula) and sector (nanotechnologies) where existent research capacity was insufficiently developed for the growing industry demand.

Similarly, other European regions with a poorer scientific tradition, or with a growing industry demand for new technological areas not sufficiently addressed by existent research structures, could strongly benefit from trans-national activities leading to the creation of new multinational research structures

### ***Upon which existing initiatives, such trans-national cooperation activities could be established?***

The experience of the “Competence Centres” in Austria and Sweden is a good example of the instruments that could be implemented. In Austria, the initiative, set-up by The Federal Ministry of Economics and Labour (BMWA) has led to the creation of around 20 competence centres since 1999 involving companies and regional research centres, in the areas of Information Technology, Mechatronics and Metrology, Chemistry and Biotechnology, Environment, Energy and light, Automation and Nanotechnology.

Two instruments are foreseen within the programme:

- **Line of Action Centres of Excellence**: Industrial Centres are built upon the existing technological competences of a number of enterprises with similar thematic or methodical R&D interests. The idea is to

concentrate the R&D activities of a number of enterprises and the research activities of research institutes working in the same field. The aim is to develop technical expertise and promote the dissemination of this knowledge in existing and new companies. This line could be used for regions / sectors where research offer is not suited for the industrial demand and would imply the creation of new structures, that could have a trans-national nature.

- **Line of Action Networks of Excellence:** Competence networks consist of a number of competence nodes from the fields of science and industry in those areas of technology where there is competence and/or demand in different locations. The individual nodes complement one another in terms of their thematic orientation within the framework of an overall concept. This line could be used in regions / sectors where research competence is already suited for the industrial demand, and is intended to provide a more coordinated research offer to an extended industrial basis, which can be of a trans-national nature.

The Austrian action has already been transferred to Estonia through the creation of small R&D institutions for industrial use.

In Sweden, the Competence Centres programme, first launched in 1993, has supported the establishment of 28 centres at 8 of Sweden's universities, equally funded by the university, industrial partners and the government through VINNOVA. Centres are selected through an open competition and funded for a 10 years period.

***If the challenge is to be addressed through trans-national cooperation, which specific activities / instruments / actions would be required to make progress?***

Bilateral arrangements between governments will possibly be the best instrument to initiate activities in such field. Funding could be provided through a combination of national programmes of the countries involved and/or by international programmes, including Infrastructure measures of FP7 and INTERREG. As in the Swedish model, it would be important to ensure that a part of the funding should be covered by the industrial and research partners of the Centres of Competence to be involved in trans-national activities.

***What are the stumbling blocks for trans-national cooperation which prevent spontaneous solutions to emerge?***

The most relevant barriers for trans-national cooperation include:

- lack of suitable funding mechanisms;
- lack of coordination / dialogue between national authorities on the issues of complementarities between research offers and industrial needs; this can be addressed by building on the results achieved by European Networks as the Innovation Relay Centres (IRCs).

**For challenge b) Assess research-industry cooperation performance**

Cooperation at trans-national level should focus on: developing further common set of indicators for the performance assessment.

This would facilitate the setting up of a standardized models for information collection within universities and PROs, while allowing each organization to accommodate national practices; it would also facilitate the use of international peers across different systems and the benchmarking of results;

***Upon which existing initiatives, such trans-national cooperation activities could be established?***

The PROTON network has been since some time developing common guidelines for the reporting of activities from Knowledge Transfer Organisations (KTOs) within universities and PROs, and this experience could be the basis for a wider trans-national cooperation on this field.

As regards peer-review assessment, a prototype of such an assessment has already been conducted in a few Swedish universities with the support of VINNOVA.

***If the challenge is to be addressed through trans-national cooperation, which specific activities / instruments / actions would be required to make progress?***

A funding mechanism at trans-national level would need to be identified for the work of developing a common set of indicators at trans-national level.

At a second stage, each country should be responsible for funding the national assessment exercise.

***What are the stumbling blocks for trans-national cooperation which prevent spontaneous solutions to emerge?***

At present, most of the data needed for a performance assessment of research-industry cooperation is not available in a structured way across EU universities.

Intervention at policy level is needed in order to set-up the guidelines (possibly under the form of indicators to be assessed) to allow universities to set-up monitoring systems to collect structured information.

**For challenge c) Better communication between research and industry as concerns IPR ownership**

The success of a shared understanding and expectations on ownership of IP requires agreement of principles and deployment.

There are two examples of best practice in existence which consultation through the Proton Europe association has demonstrated are applicable in different member states and at trans-national level. One, the development of a decision tree by the Crest group, evoking from the work of the Lambert Group in the UK is a tool which is appropriate for development under Europe Innova – as are the standard clauses of the actual Lambert model contracts.

The other which is a policy measure to create greater understanding and to manage expectations before those tools are applied, is a Code of Practice for industry and research providers, as developed in the Republic of Ireland for both publicly funded and jointly funded research.

Deployment of this example of best practice would be through policy at member state level, but the result would be adoption across Europe of shared general principles which could be applied in trans-national situations, lessening both cultural and perceived legal barriers to cooperation. One potential benefit among others already given would be to strengthen the understanding and thus the position of SMEs, in negotiation with, or collaboration with larger companies.

***Upon which existing initiatives, such trans-national cooperation activities could be established?***

Two national Codes of Conduct have already been developed in Ireland. The first Code of Conduct governs funding from public sources for research and was put together by the Irish Council for Science, Technology and Innovation (ICSTI) with input from stakeholders. This was published in 2004. The code has been generally accepted by the universities, however it is recognized that this only represents a series of guidelines. Further pressure to adhere to aspects of the guidelines has been provided via an Agency Agreement which was determining the use of public funds used in research. This strongly favors IP ownership by the universities.

The Code is to be found at <http://www.sciencecouncil.ie/reports/index.html#ipcode04>

A second code, for research jointly funded by public and private sources was published in 2005. The second Code of Practice covers the management of IP from Public-Private Partnerships. It can be found at <http://www.sciencecouncil.ie/reports/index.html#ipcode04>

Elsewhere, in the UK specific tools for improving IPR communication between research and industry were developed, known as the Lambert Agreements. As part of the process, a “decision tree” has been produced – a menu driven guide to allow the user to determine the appropriate contract to use for any given set of circumstances. This “decision tree” was subsequently adopted by the Crest Working Group on IP [Europe Innova action].

***If the challenge is to be addressed through trans-national cooperation, which specific activities / instruments / actions would be required to make progress?***

In a similar process to the UK and Ireland processes, the deployment of Codes of Conduct or IPR Standard agreements at a trans-national level could possibly be implemented by means of working groups, including scientific councils, industry representatives and the universities.

The work of these groups should be funded by the national funds of the adhering countries, under existent or new measures.

***What are the stumbling blocks for trans-national cooperation which prevent spontaneous solutions to emerge?***

- Failure of industry at national level to identify representatives. This seems unlikely as most member states have representative bodies or acknowledged leading companies which can influence behavior in smaller and supply chain companies.
- Failure of the actors to recognize that each must gain benefit; that the principles must be acceptable to all, which may require a degree of flexibility. This should be overcome by the prospect of more straight-forward and thus faster deals.
- Failure to make the codes available, to support them and publicize them. This could be supported by trans-national events but also by development of case studies and by training materials for use by:
  - Proton Europe – development of training its members
  - Industry sector representative bodies.

***Main conclusions:***

**Yes**, there are clear ideas how to foster trans-national cooperation in this field. Potential activities have been identified which bear the potential of addressing the challenge through trans-national cooperation, which are presented below:

<b><i>Challenge</i></b>	<b><i>Potential Activities</i></b>	<b><i>Implementation means</i></b>
Re-think the model of Industry-oriented research organisations	Sharing and transfer of good practice	Centres of Competence
	Trans-national cooperation between existent Centres of Competence	Cooperative projects, mobility schemes, evaluation mechanisms...
	Development of new Centres of Competence of a trans-national nature	Bilateral governmental agreements
Assess research-industry	Developing further common set	PROTON Network

cooperation performance	of indicators for the performance assessment	
Better communication between research and industry as concerns IPR ownership	IPR Codes of Conduct	Irish Science Council
	IPR model contracts	Lambert Agreements

### *3. Potential actors to drive the agenda for trans-national cooperation further*

#### **For challenge a) Re-think the model of Industry-oriented research organisations**

Ministry of Industry or Economics are the relevant player for this action, albeit in some countries the Ministry of Research could also be involved.

The Austrian Federal Ministry of Economics and Labour (BMWA), or the Swedish agency VINNOVA, could be the first promoters of such initiative at trans-European level, noting that both countries have several Centres of Competence in place (28 in Sweden, 20 in Austria) and that the Austrian experience has already been transferred to Estonia and is under consideration for implementation in Cyprus at the moment.

#### **For challenge b) Assess research-industry cooperation performance**

For this challenge both the Ministry of Industry and/or Economics and the Ministry of Higher Education and/or Research of the concerned countries should be involved.

VINNOVA in Sweden has already implemented a prototype peer-review performance assessment exercise in a few Swedish universities and could be the promoter of a wider, trans-national level, initiative in this field while the current work of ProTon Europe could define the dataset.

#### **For challenge c) Better communication between research and industry as concerns IPR ownership**

To deploy this good practice would require engagement by the Ministry for Industry or its equivalent in each member state; representatives for industry; representatives for the research providers. To ensure commonality across Europe Proton Europe could be asked to provide a member from the country to contribute to the laths and to work with other Proton Europe colleagues to assure the deployment of best practice and the principle of the trans-national application. Several of those persons who developed the Irish Code of Conduct as members gained an understanding of the Codes and the issues to be addressed in developing these.

Doubtless the government of the Republic of Ireland, and AURIL – Ireland would be willing to advise and mentor adoption of the Codes in other members slates, but the main focus should be creating ‘champions’ within each member state, and within each main act.

#### ***Main conclusions:***

**Yes**, strong interest in cooperating in this field has been identified. Potential partners are well defined and seem ready to work together.

#### 4. Funding instruments to implement the proposed action

All the three identified challenges could be further exploited and implemented at pilot stage through INNO-NETS and/ or INNO-ACTION projects, involving the interested national agencies and ministries.

Several other funding mechanisms can also be considered:

- for exchange of good practices on Centre of Competence, including “transfer” of the mechanism from one country where it is already implemented to another one: FP7 Regions of Knowledge (Mentoring Scheme) or bilateral arrangements between governments; private funds, in the form of co-financing from industrial and research partners of Centres of Competence should also be ensured;
- for joint initiatives between existent Centres of Competence: FP7 Cooperation or Mobility (Marie Curie Schemes); also here a minimum level of private funding from the main stakeholders involved should be ensured;
- for the creation of new trans-national Centres of Competence: INTERREG A (Trans-border) or B; bilateral arrangements between governments; once again, a minimum level of private funding should be ensured (PPP model);
- for developing a common set of indicators at trans-national level for performance assessment of research-industry cooperation: INTERREG A, B or C, bilateral arrangements between governments;
- for developing Codes of Conduct or standard IPR contracts: FP7 Research for SMEs Coordination and Support Actions.

#### **Main conclusions:**

**Yes**, the proposed action would respond to the identified key challenge in this area. It is expected that a strong initiative in support of trans-national cooperation could be built, which would produce the expected results.

## 5. Leveraging the impact of the proposed action

While some actors have been identified in this report as the potential “early promoters” of the proposed challenges, it is of unquestionable importance to involve as many countries / regions as possible in the activities to be launched. While this may be difficult to achieve at first, multipliers can be used to leverage the impact of the first actions to be launched in order to disseminate its results and practices towards other potential users.

Amongst these multipliers the following deserve a special mention:

- the new Business Support Network (resulting from the merge of the current Innovation Relay Centres and Euro-Info-Centres networks) for dissemination and promotion of results achieved under challenge a) *Re-think the model of Industry-oriented research organizations*;
- the PROTON network for finalizing the dataset and the dissemination and promotion of results achieved under challenge b) *Assess research-industry cooperation performance* and c) *Better communication between research and industry as concerns IPR ownership*.

### **Main conclusions:**

**Yes**, the proposed action would benefit from complementary action in related areas in view to using synergies and ensuring strong impact overtime either for the sustainability of the project or to prepare for sustained support at national or European level.

## Final Conclusions

The following table summarizes the conclusions of the Exploratory Team:

<b>Activities</b>	<b>Types of project</b>	<b>Potential Actors</b>
1.Exchange of good practice on Centres of Competence	InnoNet Regions of Knowledge	Ministries of Industry / Economics / Research Innovation / Development Agencies Centres of Competence IRCs / BSN
2.Transnational cooperation amongst Centres of Competence	InnoAction FP7 cooperative research projects FP7 Mobility programmes	Centres of Competence Industrial partners
3.Creation of new transnational Centres of Competence	InnoNet INTERREG	Ministries of Industry / Economics / Research Innovation / Development Agencies Universities Research Centres Industrial partners
4.Developing a common set of indicators at trans-national level for performance assessment of research-industry cooperation	InnoNet INTERREG	Ministries of Industry / Economics / Research Innovation / Development Agencies Universities PROTON
5. IPR Codes of Conduct	InnoNet FP7 Research for the Benefit of SMEs	Ministries of Industry / Economics / Research Scientific Councils Universities Research Centres Industrial Associations PROTON
6. Development of standard IPR contracts	InnoNet FP7 Research for the Benefit of SMEs	Ministries of Industry / Economics / Research Scientific Councils Universities Research Centres Industrial Associations PROTON

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