

**INPUT  
TO THE PREPARATION  
OF THE ERA FRAMEWORK**

**by the  
ERAC Working Group On Knowledge Transfer**

**November 2011**

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## **Introduction - Input to ERA Framework:**

We believe that the pillars of the ERA identified in the Green Paper 2007 are still valid and should remain the main areas of focus. We also believe that the Vision 2020 for ERA, adopted by the Competitiveness Council in December 2008 remains a very good qualitative target for what we should strive towards. The need to quantify this qualitative vision nonetheless remains.

In the following, the replies to questions 1-4 represent a consensus view of the ERAC Knowledge Transfer Working Group while the Annex details a range of suggestions from individual members of this group and, as such, have not yet been consolidated by all Member State representatives.

## **Question 1: What progress has been achieved so far in your area, by the partnership initiative and other relevant EU and national/regional actions? What are the effects in terms of commitment and progress? What progress has been achieved so far by the ERAC KT Working Group?**

Since the report of KT Group was adopted by ERAC<sup>1</sup> further progress was made.

Underpinning the KT Working Group's mandate is the "IP Recommendation" on the "*management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations*" April 2008 which was endorsed by a Council Resolution in May 2008.

Following the Council Resolution, CREST (now ERAC) decided in January 2009 to set up a CREST Working Group on Knowledge Transfer (hereafter The "KT Group"). The Council Resolution called for "*Member States and the Commission to establish, in partnership, light and effective governance agreements, including the monitoring and evaluation of the take up and impact of the Recommendation and Code of Practice, on the basis of indicators, the exchange of best practices with active involvement of stakeholders, which could lead to the definition of further guidelines on specific issues of common interest where justified*".

To implement the Council Resolution, the KT Group took responsibility for the monitoring the implementation of the IP Recommendation two years after its adoption. In this process it surveyed in detail the KT practices, government policy and legal infrastructure concerning IP and KT in 28 countries. This enabled the KT Group to produce a comprehensive summary of knowledge transfer activities across Europe which is crucial to enabling policy makers to develop new policies for this area of the ERA framework. In particular, the report revealed that several countries have used the IP Recommendation in drafting national legislation and used it to develop specific policies, for example to create an integrated national KT scheme.

The KT Group developed two specific work-streams on new initiatives:

(i) a subgroup on knowledge transfer metrics which has considered the concept of a headline composite indicator for KT. The final proposal of this subgroup consists of a series of component indicators which are divided into three groups: KT through people, cooperation (in R&D and other phases of innovation) and exploitation or commercialisation of research results -which it is proposed to aggregate to derive a composite indicator. It has been suggested to use the monitoring study of

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<sup>1</sup> 2010 Report on the implementation of the Council Resolution and Commission Recommendation on the management of intellectual property in knowledge transfer activities and code of practice for universities and other public research organisations by Member States and Associated countries, adopted by ERAC on 7./8. October 2010 (2010 KT Working Group Report).

the implementation of the Recommendation to collect missing data (This study is currently under way).

and

(ii) an international collaboration subgroup which has produced a major draft of a stakeholder guide about IP and KT management for cooperation with third countries. It is envisaged that this will be signed off by the main group and published later this year.

The KT Group has contributed to ad hoc ERA initiatives such as the development of the framework guidelines for collaboration for JPIs.

More generally the Commission has organized a stakeholders forum in which the KT Group has actively participated in order for stakeholders and experts in Europe to come together to learn and exchange ideas for example through topic-based lectures which has informed policy debate and development at a national level.

The following provides a summary of the trends across the EU as captured by KT Group's report on the IP recommendation (2010) which accommodated input from 28 Member States. This looks at the legal and regulatory framework for KT; funding for infrastructure and capacity building - staff, training schemes, industry engagement projects - and other issues such as open access and collaboration with third countries.

Several countries mention they require by law that universities and PROs cooperate with the private sector and society in order to improve KT (FR, CZ, DK, SE, LU, NL, HU, BE, DE, NO, TR). For example, in TR the Law on Public Financial Management and Control obligates all universities to prepare their strategic plans in accordance with national priorities, which includes national strategy documents on KT and IP issues. In LU since 1987 the law requires that PROs cooperate with the private sector in order to promote knowledge and technology transfer. In HU the Act on R&D and technological innovation was adopted in 2004. FI introduced the 'Act on Inventions' in 2007 with the aim to clarify the rights to inventions in HEIs and to promote the utilization of these inventions. Similarly, all 16 German laws on universities stipulate TT as an objective. In SI, the Act on "Inventions from Employment" defines KT in substantial detail (article 21) and LV law requires that institutions disseminate knowledge and encourages the use of research results.

The Bayh-Dole Act was critical instrument adopted in US patent law in the 1980s which amongst other things gave publicly funded institutions ownership rights to IP arising from publicly funded research and encouraged the exploitation of the IP. It also made provisions that exclusive rights be granted to domestic firms and for domestic manufacture of goods arising from the IP. Bayh-Dole has continued to be strong controversial debating point. Several committees advised against a Bayh-Dole for Europe. For example, the ERA knowledge sharing group specifically stated in 2008 that a "European Bayh-Dole is not desirable or necessary"<sup>2</sup>.

Several countries have established regulations (CY, DE, DK, ES, FI, FR, HU, IE, RO, SE) which essentially promote KT. In CY a regulation mandates compliance with rules which are in line with the

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<sup>2</sup> [ec.europa.eu/research/era/pdf/era-gp-eg4\\_en.pdf](http://ec.europa.eu/research/era/pdf/era-gp-eg4_en.pdf)

Commission IP Recommendation. FR introduced a new regulation: a simplification of the IP regime within laboratories managed by several PROs.

However, the majority of countries (AT, CH, CY, DE, EE, IE, FI, IT, IL, NL, NO, RO, SI, TR, UK) focus on non-legal policy initiatives largely through funding mechanisms to promote KT. They (MT, IE, DK, IL, FR, CZ, EE, IT, CY, EE, MT, BE, UK, ES) use the best practice of promoting proper management of IP resulting from public funding, requiring that it be carried out according to established principles while taking into account the legitimate interests of industry. Eleven countries provide funds to develop and operate TTOs (BE, CZ, DK, EE, ES, HU, IE, NL, NO, UK, TR). For example, England has the Higher Education Fund (approx €150m for 2010/11) which supports the KT infrastructure; a significant part of it supports the staff costs of approximately 6,500 KT professionals in UK universities. IE is developing a specific TT strengthening scheme and requires that universities and publicly-funded institutions have an IP policy.

Regarding funding, NO has a program which supports commercialization of research based business ideas (by licensing, start ups, funding of infrastructure, license agreements, proof of concept funding). ES also includes a specific “Instrumental Action Line” called “Knowledge use and technology transfer” in its 6th national plan for R+D (2008-2011). NL is establishing a new subsidy scheme to support PROs and industry with their KT activities (e.g. funding offices, seed money, IP-management). CY will introduce mediation centers in future to support technology transfer, LT will set up centres of KT to promote commercialization and AL will set up a programme for accelerating KT. EE has a series of structural funds in place, such as to increase patent activity and KT capacity, strengthening cooperation between PROs and firms.

Some countries have bricks and mortar schemes such as SE and ES which provide funds for building innovation offices. Other countries such as NO prefer to adopt a steering dialogue to performance manage their universities and to improve IP management and KT.

In Italy there is a new measure designed to make it easier to bring innovation to the market: the Innovation National Fund (INF). INF enhances SMEs to produce innovative goods based on patents or designs and to cut the loan and/or investment risks for banks and/or other financial intermediaries that finance innovative projects.

The financial resources of INF, € 80 millions, are provided by the Italian financial law for 2007 (article 1, paragraph 851, law n. 296/06). It states that the revenues originated by IPR fees can be used to allow SMEs to fully benefit from the IP system.

Some countries have more finely defined programs. For example, Wales, a devolved government in the UK, has an “academia-for-business” A4B scheme which provides a patent and proof of concept funding as part of five infrastructural KT funding schemes. AT also has an initiative to promote professional patent management at universities. There are a number of innovation voucher schemes for example in Holland which are used to stimulate SMEs to work with PROs. Germany has the program EXIST and the allover SIGNO initiative, which aims at improving the entrepreneurial environment at PROs and increasing the number of technology and knowledge based business start-ups.

Most countries have some level of KT awareness raising activities in place. As part of this a large number of countries (AT, CY, DE, DK, ES, HU, IT, LV, LT, MT, NL, PL, UK) have disseminated the IP Recommendation and a number of countries have taken measures to actively encourage the use of it<sup>3</sup>. For example, government bodies in IT and AT organized specific seminars to raise awareness of the IP Recommendation and IP management. The UK has recently produced a handbook ("Intellectual Asset management for universities"<sup>4</sup>) for senior university managers on KT management which makes significant reference to the Recommendation. Austria has connected the funding of universities depending on the implementation of an IP strategy in line with the IP recommendation. RO is also preparing a manual for TTOs in innovation and tech transfer. In MT the Recommendation resulted in a publication of a university IP policy where it was declared a 'central tenet'. PL is in the process of drafting new legislation relating to KT which will take account of the Recommendation. NO and CY have begun to use the principles of the Recommendation in research co-operations with third countries. A number of countries (ES, PL, MT) have planned to include provisions of the Recommendation in legislation and IP policy. In France, these recommendations have been translated in the IP Charter of the Carnot Institutes, which are laboratories having a strong partnership with the industry

It is well accepted that often the majority of knowledge transfer happens through people and their relationships. Networking and training underpins this and several countries have specific programmes for KT in these areas. In five countries (CY, EE, HU, IE, MT) the state agency funds training forums for PROs. CH has provided coaching for selected start ups. A number of countries have entrepreneurship development programs for publicly-funded researchers. In SI a government agency provides a program called 'young researchers for business sector' which supports and connects young researchers with academics and the business sector. DK, FR and the UK provide funds for short term placements of academics in the business sector; ES has programmes which subsidize and give loans to the private sector to hire and recruit highly skilled technologists and provides a qualification-based training program.

Knowledge transfer takes place through a variety of mediums, whether protected or unprotected by formal IPR. In this context open access is often a valuable and significant mechanism that facilitates KT. (But open access has to be distinguished to free access). The majority of countries (AT, BE, CY, DE, IT, FR, NL, NO, UK, SE, TR) promote open access and have measures in place to ensure dissemination of knowledge. Open access is required by law, or by mandated by the policies of governments and/or public institutions in some countries. In BE, the publication rights of university personnel are guaranteed. The UK research councils have a policy for open access which states that the results of publicly funded research must be made available. In DE all grant recipients are required to make all projects, including final reports, available to the German National Library of Science and Technology. In NO, journals of institutions are free and digitally accessible not only to persons affiliated with that institution but all professional users. DK has an 'Invention Act' which balances considerations for publication and IP protection. CZ law specifically provides that publications must be consistent with IP-protection, commercial or state secrets.

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<sup>3</sup> See 2010 KT Working Group Report for further details.

<sup>4</sup> <http://www.ipo.gov.uk/ipasset-management.pdf>

The upcoming Commission Publication on Open Access which is based on a questionnaire sent to the MS will probably add additional information and should be kept in mind. From an ERA Framework point of view increased uptake of results, e.g. through implementation of Open Access policies and provisions, is of key importance, in line with the OECD Principles and Guidelines for Access to Knowledge in the Sciences and Humanities (2003).

IP ownership can be a contentious issue and different states have different policies. Some countries have or are planning to legislate in this area. For example in LV the state owns all the IP arising from publicly-funded research. CZ, DK, AT, NO, DE and FI have abolished “professor privilege” where the individual academic owns the IP but this is maintained in others like Sweden and Italy. Other member states make provisions for IP ownership in their funding schemes. UK state funded research is predicated on the principle that rules regarding IP are best determined by the originator of the research.

With regards to research collaborations involving third countries there is broad consensus among member states that the treatment of all participants should be equitable (CZ, HU, TR, DE, EE, FI, CY, LU, NO, PL, IL, DK, IE, IT, LV, NL, ES, UK, RO, AT, SI, AL) and that, in general, the distribution and ownership of intellectual property between various partners should be made according to the individual contribution to the particular knowledge created.

Overall it is clear that the vast majority of not all member states increasingly regard KT as a mainstream issue. Nearly all countries have a variety of measures at various stages of development-policy, some legislative, funding, capacity building and other activities which bring the relevant people together.



## **Question 2: Do you agree that the obstacles described hinder the completion of ERA, and in what way do they (or do they not)? What other obstacle(s) and unrealised opportunities are there?**

There have been lots of studies and activities to identify obstacles. Over the years various groups discussed topics like social insurance schemes, lack of venture capital, complex funding mechanisms, fragmentation in legal systems, the absence of a EU wide patent system, lack of professionalism in knowledge transfer. Depending on the background of the group prioritization of these obstacles varies but the big picture stays rather similar. Also has COM published contemporary articles and papers about the importance of these obstacles.

There is an acknowledged increasing gap between the rhetoric of problem analysis and actions that deliver change. In the reality of budgetary and other priorities the KT Group considers it necessary put emphasis on remedies and successful actions not diagnosis only

It has been pointed out some years ago (E.g. Esko AHO) that the EU is losing out on its R&D base as large firms globalize their R&D. [FRAM AHO REPORT : The net imbalance of R&D investment by EU firms in the USA compared with US firms in Europe increased five-fold between 1997 and 2002, from about €300m in 1997 to almost €2b in 2002. US R&D investment has been growing at a much greater rate in areas outside the EU – about 8% per year in the EU and 25% per year in China. (About half of new RD sites are situated in China) Additionally, Europe has a manufacturing profile that has a relatively low share in ICT-related sectors, and a structural trade deficit in high-tech manufacturing]

Generally it may be stated that for companies, the principal barrier to investment in Europe is the lack of an innovation friendly market. By comparison, the large national markets of the USA and increasingly of China provide a more fertile ground in which to launch innovations.

The KT group has a continuing focus on international knowledge transfer. It has been shown again that although barriers and obstacles are well known in principle, there is need for tools, actions and common strategy.

The progress and velocity in removing obstacles and barriers in knowledge transfer differs between Member states. There is great variation in the degree of implantation of measures. The success of these measures cannot be quantified at a very general level as detailed indicators are currently not collected throughout Europe.

It would help unblock these obstacles if the questions and understanding of the processes of professionalization of knowledge transfer and IP management were developed more fully at a political level. It should be recognised that it takes time to educate professional knowledge transfer professionals, establish professional support units and adapt to new legal regimes. Political demand for constant reorganisation and renewal therefore tend to be counterproductive, even if the intentions are good.

The remaining problems in the field relate primarily to the culture and mindset of the research environment. Compared to the situation in the USA, there is a lack of entrepreneurial spirit in a

considerable number of universities in some Member States and too little recognition of the mutual benefits of joint public-private research projects. Solutions to address this problem may include improvement of university management, economic and other incentives to influence behavior at individual as well as institutional level and initiatives for entrepreneurship training.

**Question 3: Can you indicate what are the most important remaining problems, barriers and obstacles to address and can you substantiate these priorities? (e.g. by analyses and evidence collected by you so far, publications resulting from your work, with evidence and illustrations on the type and size of the problems, costs and benefits for different types of stakeholders and effects on quality, efficiency and impact of research and research-based innovation in Europe?)**

During the last decade major progress has been made in regard to knowledge transfer and management of IP from public research in Europe. However, differences remain between the more experienced countries and member states with a more recent interest in the field. To this end, the IP Recommendation appears to be an effective tool to achieve progress and voluntary harmonization by the means of best practice examples rather than centralized European legislation. A survey performed by the KT Group indicates that most Member States have already taken or are planning a variety of initiatives to expand and professionalise their respective knowledge transfer activities. Thus, it is the KT Group's general impression that the necessary legal framework and financial support schemes are already in place or under development.

The KT Group suggests that the ERA Framework should build upon the achievements already attained while seeking to address areas where progress has been insufficient. We believe that the diversity within the EU Member States (size, peripherally, maturity of the research systems, scale effects, etc.) should be taken into account in any examination or explanation concerning the progress or lack of it. In designing the ERA Framework, we feel that it is important that these issues are taken into consideration, if we truly want to unlock the potential of all Member States for an inclusive ERA which leverage on the strengths of small and large Member States. It is in this context that we welcome an ERA Framework which respects subsidiarity and shared competences between the EU and the national level.

## **Question 4: What do you consider the way forward in terms of solutions and possible policy measures to address these obstacles including on the basis of examples of good practice?**

Compared to the overall landscape in the year 2000 when Commissioner Busquin was introducing the ERA there have been considerable achievements in the field of KT. Rules on the participation in FP6 (first start of the improvement of sustainable use of inventions) were successfully implemented. FP7 was then confronted with the question regarding the allowance of multiple use of IP by affiliates of participants in FP7 projects

After the Green paper on ERA was tabled in 2007 MS agreed under German chairmanship to foster more the national perspective on KT in regard to implement ERA and to make ERA as such more competitive. This gave rise to the IP Recommendation referred to above. One objective of this was to professionalize the management of IP in PROs. Although a lot of progress has been made, there is scope to investigate further incentives for a broader and faster implementation in order to enable European PROs to be the most competitive and attractive (valuable) partners worldwide. Improvement of KT in the EU's PROs is consistent with the ERA-Initiative on mobility in terms of attracting Europe for the most outstanding brains all over the world.

The way forward in terms of solutions and possible policy measures to address these obstacles in the ERA framework is described by addressing different items which contain various action points.

- Item A: Mainstreaming of the KT contribution to ERA Framework with ongoing IPR initiatives
- Item B: Measures to remove obstacles
- Item C: Collaborative measures enabling efficient KT and impact of research results ,
- Item D: Robust IP Regime in ERA

The items and action points are described below:

## **Item A: Mainstreaming of the KT contribution to ERA Framework with ongoing IPR initiatives:**

1. Ensuring that research results are better commercialized is a question of European interest. Several countries, albeit that they have different regimes regarding the ownership of IP, have been more successful in their efforts at commercialization, whereas other countries are less advanced.

A certification scheme for PROs should be created with the aim of improving the collaboration between PROs and industry with respect to knowledge transfer. A PRO applying for a certificate would have to show that it has a comprehensive IP strategy in place (taking into consideration the IP Recommendation and Code of Practice). Once certified it can advertise itself as a reliable partner for research collaborations with industry partners in Europe and beyond. The certificate could be awarded by the Commission. The Commission could draw out incentives on this in Horizon 2020. A competition could be advertised. Another concrete idea would be that the first certifications will be awarded by the President of the Commission under the umbrella of fostering the competitiveness of Europe; a lot of variances are conceivable.

**Action:** develop the framework for a certification, quality standards, consider if there is a need to go beyond the content of the IP Recommendation and Code of Practice and if so what should concrete requirements with respect to an IP strategy be.

## Item B: I. Measures to remove obstacles

### 1. Mobility of researchers

As stated in section 1 of this Input paper ‘it is well accepted that often the majority of knowledge transfer happens through people and their relationships. Networking and training underpins this and several countries have specific programmes for KT in these areas’.

To support the scheme of the SGHRM (ERAC Group in charge for questions of mobility) professional management of IP including KT should be seen as an important factor of attractiveness for researchers all over the world. The implementation of the IP Recommendation is a key factor to boost KT as such, but KT through mobility of researchers is also an important factor. As part of this making working conditions more attractive for researchers should be considered.

It could be advantageous to address these **KT issues in the context of mobility**, for instance in the form of **standard minimum KT conditions applicable for researchers and graduate students as well as for visiting researchers moving from one country in the ERA to another, which is indicated by the IP Recommendation’s advice on setting up IP strategies in PROs**. This will also affect the contractual framework conditions on employment. The aim would be to establish similar conditions for the handling of intellectual property in bilateral agreements on research and innovation between countries. This would enable reciprocal, equitable treatment of a particular country’s own nationals who were engaged in research in a bilateral partner country.

Because of this interdependency of mobility of researchers and KT, the MS/AS and COM should support measures for better implementation of the IP Recommendation in MS and AC, and which enhance mutual integration of the ERA initiatives relating to researcher mobility and knowledge transfer.

Horizon 2020, with its holistic approach to Research and Innovation, would be the appropriate programme under which this proposal for better integration could be addressed. We suggest that awareness of this holistic approach is promoted by COM and AS/MS.

### 2. Streamlining Process

The existing initiatives (fact sheets, interactive tool kit, guides) that relate to the education about IP, questions relating to IP in international collaborations and in calls in FP7 (and later to Horizon 2020) need to be streamlined and the interrelation of the different tools need to be clarified. In addition, the different players (e.g. KT Group, IPR Held Desk, KOM, SFIC) involved in trying to improve KT in Europe need to be linked together and work together much more closely in order to create a pool of information that can be truly useful to PROs, researchers, companies who are seeking to increase their level of understanding of IP and KT matters. Duplication of efforts need to be avoided and the different players should be kept informed about important initiatives so that all the important existing initiatives can be considered appropriately when evaluating the need for new initiatives or the success of existing initiatives.

E.g. The COM Website “Investing in European Research” includes a policy initiative called “Intellectual Property and Technology Transfer”, which provides a lot of information and

access to numerous IP or KT related documents. It seems however that this website has not been updated regularly and currently includes numerous documents (mainly from the early 2000s) without providing assistance on how to navigate them. This website, if improved and regularly updated could be a very useful tool in assisting on KT topics. There is also an interactive toolkit that could be very useful to learn about collaboration agreements in KT. This tool should be further developed and made easily accessible.

E.g. The COM IPR Help Desk has recently published Fact Sheets on how to manage IP in FP7 during the proposal and the negotiation stage. These documents contain valuable information but they do not refer to the IP Recommendation, even though there is a chapter on strategy for dissemination and exploitation of project results. It is not even mentioned under “Useful Resources”. It would have been very helpful if these Fact Sheets had mentioned the IP Recommendation and Code of Practice as a useful guide on strategy to encourage its implementation. It can be argued that FP7 is a different programme but FP7 is very much related to ERA-Instruments as the new discussion on ERA shows. Furthermore in initiatives according to Art. 185 TFEU or in joint undertakings according to 187 TFEU where the FP 7 rules do not automatically apply, PROs without a comprehensive IP-Strategy are at a clear disadvantage.

### 3. Bridge building between Horizon 2020 and the implementation of the IP Recommendation

To further encourage the implementation of the IP Recommendation and Code of Practice in PROs, it would be useful to explore ways to use certain funding rules within Horizon 2020 to motivate activity (e.g. PROs with a comprehensive IP strategy that also takes into consideration the IP Recommendation and Code of Practice may receive extra funds in Horizon 2020).

## **Item C: Collaborative measures enabling efficient KT and impact of research results**

One of the cross-cutting dimensions of ERA is to enhance knowledge circulation/exchange/transfer across Europe and beyond, in order to foster scientific progress, innovation impact and new product/service development which contribute to the objectives of the EU2020 flagship initiative Innovation Union.

In order to tackle obstacles for efficient knowledge uptake it is important to acknowledge and emphasise that the knowledge transfer not only is a one way process focussing solely on the prerequisites of PROs but also a two way interaction between key actors and stakeholders. The immediate obstacles concerns the fact that the actual use of public research may not be optimal and the level of cooperation between industry and the public research sector may be inadequate/insufficient.

Therefore, it is important to ensure early industry involvement and participation in priority settings, problem definition and structuring of collaborative research programs and projects. The early industry involvement contributes to high relevance and demand-side perspectives and facilitate the collaboration and interaction between PROs and industry. It will also enable individual researchers to find collaboration partners in industry at an early stage in the innovation process, before initiating a formal commercialisation process and/or issuing a patent or similar or other IP rights.

In this respect, KT and IP measures must take into account the global presence of new collaboration models such as for example “open innovation” (implying the use by companies of internal and external RTD sources and openness to external business models) and the fact that projects and programs closer to market uptake are more challenging for industrial collaboration between competitors.

We need to acknowledge the need to achieve maximum beneficial use of research, knowledge and skills generated through public sponsorship on regional, national and European level.

Measures to this end should address the optimisation of usage of research results by industry and ensuring a high level of cooperation between academia, research institutes and industry in relevant ERA activities, national and cohesion activities, through strategic IP policy and guideline development (with reference to Responsible Partnering Guidelines developed by the Commission, EIRMA, EUA and EARTO) and intermediary broker schemes (services and/or funds) enabling researchers to find industry partners.

Action: The KT Group will develop and disseminate guidelines for efficient KT/IP management in ERA (and MS) collaborative activities, contribute to the development of a European globally competitive and comprehensive IP policy and promote the implementation of early intermediary broker schemes.



## **Item D: Robust IP Regime in ERA**

World wide competition should be taken into consideration and the role multinational corporations play regarding IP. Large companies necessarily want to be able to commercialize their IP in markets that also include countries outside of ERA. This interest needs to be balanced against the interests of Europe and its taxpayers to receive a fair return on their investment in form of a strengthened Europe and to avoid the uncontrolled loss of know-how to countries outside of ERA.

It is therefore recommended to include in the rules of participation for framework programmes and for the ERA Framework in general to recommend to the MS to create rules which aim at a European return on investment regarding the exploitation of IP, i.e. the participants in return for the receipt of European tax monies would need to demonstrate the value created through the results of the research in Europe.

Moreover, the European IP regime needs to be very robust so that it can successfully withstand claims by governments outside of Europe based on protectionist IP laws, such as the Bayh Dole Act in the U.S: or the ITPPL in South Korea. This is especially important with regard to the internationalization of Horizon 2020 and also when taking into consideration the differences between applied research such as key technologies and basic research as in the grand challenges. It should be noted that the KT Group does not offer a formal view concerning legislative measures for knowledge transfer at present.

## ANNEX I:

The Annex consists of the following items, each consisting of possible action(s) point(s), which may be incorporated in the KT Group Work Program:

**So far the Items discussed in this Annex do not reflect a consolidated view of the Group. Rather, it shows possible lines of discussion and action.**

- Item 1: Mainstreaming of the KT contribution with ongoing IPR initiatives:
- Item 2: Specific IPR issues
- Item 3: Common funding conditions for IPR in the EU Cohesion Policy
- Item 4: Measures enabling the actors and stakeholders to take positive advantage of fifth freedom

### **Item 1: Mainstreaming of the KT contribution with ongoing IPR initiatives:**

1. The ERA Framework in knowledge transfer/knowledge circulation should be mainstreamed with the work presently being undertaken in the area of the single market, cf. **COM (2011) 287 final: A Single Market for Intellectual Property Rights: Boosting creativity and innovation to provide economic growth, high quality jobs and first class products and services in Europe.**

**Action:** Input from KT Group to the ongoing work on IPR issues, in order to ensure that ERA Vision goals are adequately dealt with.

**Action:** To be developed. Suggestions include: work to include industry and private research in the IP recommendation or something similar? Suggestion to create some soft law? Have use obligations maybe just obligation to report use funding for use in place?

### **Item 2: Specific IPR issues:**

1. IPR Valorisation Instrument:
2. European knowledge markets

### **Item 3: Common funding conditions for IPR in the EU Cohesion Policy:**

ERAC KT WG will develop minimum KT conditions which could be applied in EU and national Cohesion activities. As an example, and in the context of the implementation of the European Economic Area Financial Mechanism 2009-2014, the Regulation for the Financial Mechanism includes the following requirement for all research participants:

*Article 6.7 Project contract*

1. For each approved project a project contract shall be concluded between the Programme Operator and the Project Promoter.

2. In cases where a project contract cannot, due to provisions in the national legislation, be made between the Programme Operator and the Project Promoter, the Beneficiary State may instead issue a legislative or administrative act of similar effect and content.

3. The project contract sets out the terms and conditions of grant assistance as well as the roles and responsibilities of the parties. It shall in particular include provisions that ensure that the Project Promoter undertakes to comply fully with the provisions of the legal framework of the EEA Financial Mechanism 2009-2014 referred to in Article 1.4 that are relevant for the implementation of the project, including any obligation that is valid after the project has been completed. The project contract shall contain an explicit reference to the programme agreement and this Regulation and, as a minimum, provisions on the following:

(a) obligations regarding reporting that enables the Programme Operator to comply with its reporting obligations to the FMC and the National Focal Point;

(b) the maximum amount of the project grant in euro and the maximum project grant rate;

(c) the eligibility of expenditures;

(d) the method of calculating indirect costs and its maximum amount;

(e) the first and final dates of eligibility of expenditures;

(f) modifications of the project;

(g) ensuring that the access requested in relation to monitoring, audits and evaluations is provided without delay;

(h) ensuring that obligations regarding publicity are complied with;

(i) the right of the Programme Operator to suspend payments and request reimbursement from the Project Promoter in case decision on such actions is taken by the FMC, Programme Operator or the National Focal Point;

(j) resolution of disputes and jurisdiction;

(k) a detailed budget, with itemised costs and unit prices, and which may allow for up to 5% contingency; and

(l) a reference to partnership agreements or letters of intent, if relevant.

**Project contracts for projects within an EU or national research programme or a research component under any programme shall contain provisions on intellectual property rights. These provisions shall mutatis mutandis be in compliance with Regulation (EC) No 1906/2006 of the European Parliament and of the Council of 18 December 2006.**

**Annex 12** to the Regulation for the Financial Mechanism includes the following objectives:

*Donor partnership programmes falling under the Programme Area “Research within Priority sectors” and “Bilateral Research Cooperation” shall be established and implemented in accordance with the Regulation and this Annex.*

*1. Objectives of the research partnership programme*

*The objectives of the donor partnership programmes on research are **enhanced research-based knowledge development in the Beneficiary States through enhanced research cooperation between the Beneficiary State and the Donor State(s)**. The cooperation is to be based on equal partnerships between research institutions in the Donor State(s) and Research institutions in the Beneficiary States, with the leading role of the latter.*

*Research programmes are set out to create benefits on several levels: Programme Operators, Project Promoters, project partners as well as researchers, including postdoctoral candidates and postgraduates (PhD candidates) and graduates (Master level).*

*The primary outputs of the research programme will be **research results**, including scientific publications, patent applications submitted, and numbers of PhD students supported by programme funding. The research programmes shall strengthen capacity and build competence of Programme Operators, Project Promoters, project partners as well as researchers.*

*The research programmes shall prepare Project Promoters, project partners and researchers for further research cooperation within the European Framework Programmes for research and technological development and demonstration activities, and, where relevant, also for cooperation within other European programmes.*

***The research programmes shall contribute to the development of the European Research Area.***

*The research programmes shall reflect and promote the general principles laid down in the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers.*

*Participation in the research programme shall be open to participants established in third countries, if such participation is justified in terms of the enhanced contribution made to the objectives sought under the research programme.*

Annex12 also contains an article on intellectual property rights which is here quoted in extenso:

***Intellectual property rights***

*The rules governing the dissemination of research results shall ensure that, where appropriate, the participants **protect the intellectual property generated** in the funded projects, and use and disseminate those results.*

The research programmes shall **reflect and promote the general principles of the Commission Recommendation** associated with the Council Resolution of 30 May 2008 **on the management of intellectual property in knowledge transfer activities**, and the **Code of Practice** of 10 April 2008 on the management of intellectual property in knowledge transfer activities and on a Code of Practice for universities and other public research organisations, and the **OECD Principles and Guidelines for Access to Knowledge in the Sciences and Humanities** of 22 October 2003.

*'Foreground'* means the results, including information, whether or not they can be protected which are generated under the project. Such results include rights related to copyright; design rights; patent rights, plant variety rights; or similar sorts of protection.

*Foreground arising from work carried out in projects under the research programme shall be the property of the participant carrying out the work generating that foreground.*

*Where several participants have jointly carried out work generating foreground and where their respective share of the work cannot be ascertained, they shall have joint ownership of such foreground.*

*An agreement shall be established regarding the allocation and terms of exercise of joint ownership in accordance with the terms of the grant agreement.*

*Where no joint ownership agreement has yet been concluded, each of the joint owners shall be entitled to grant non-exclusive licenses to third parties, without any right to sub licence, subject to the following conditions:*

*(a) prior notice must be given to the other joint owners; and*

*(b) fair and reasonable compensation must be provided to the other joint owners.*

*'Background'* means information which is held by beneficiaries prior to their accession to the project contract, as well as copyrights and other intellectual property rights pertaining to such information, the application of which has been filed before their accession to the project, and which is needed for carrying out the project or for using results generated under the project.

*Participants may define the background needed for the purposes of the project in a written agreement and, where appropriate, may exclude specific background.*

*The Project contract shall establish further rights and obligations of participants concerning dissemination, use and access rights.*

The Regulation and the Annex were tailored closely to EU level standards, and a specific reference to the Commission Recommendation on the management of intellectual property in knowledge transfer activities was included to the Council Resolution of 30 May 2008 on the management of intellectual property in knowledge transfer activities and on a Code of Practice for universities and other public research organisations. This could be of interest in relation to the ongoing review and legislative proposals of the cohesion policy.

**Action:** ERAC KT WG will develop minimum KT conditions which could be applied in EU and national Cohesion activities

#### **Item 4: Measures enabling the actors and stakeholders to take positive advantage of fifth freedom**

Take-up and application of research results and possible monitoring

##### **Item 4.1:**

**Action:** ERAC KT WG could support and help establish an **ERA –level proof-of-concept activity**, across the range of the Common Strategic Framework instruments, with the proposed ERC model as point of departure for developing the activity.

##### **Description of proposed ERC model:**

*The 2011 work programme is updated to introduce a new activity, the 'Proof of concept' (10M€ on third country receipts) which provides additional funding to ERC grant holders to establish proof of concept, identify a development path and an Intellectual Property Rights strategy for ideas arising from an ERC-funded project.*

*The objective is to provide funds via a call for proposals to enable ERC-funded ideas to be brought to a stage where potential commercialisation opportunities can be secured.*

*The ERC Proof of concept in a form of a coordination and support action aims at supporting an ERC grant-holder preparing a "package" to be presented to venture capitalists or companies that might invest in its technology and take it through the early commercialisation phase.*

*The maximum requested EU financial contribution per grant will be up to EUR 150 000 for a period of 12 months.*

##### **Item 4.2: Provision of practical guidance to stakeholders**

**4.2.1:** Participants in Common Strategic Framework instruments could be provided with more concrete guidance on KT matters, e.g in relation to plan for use and dissemination of results.

At present the guidance given is limited and presupposes the existence of fairly advanced knowledge of KT. Many potential SMB participants are not at that stage.

The present requirement for developing a plan for use and dissemination of results at the proposal stage is not particularly well followed up in the course of the evaluations. In consequence an opportunity may be lost for ensuring impact of results with potential commercial application.

A revamping of the requirement for such a plan should be considered, along with a strengthening of the evaluation of the plan. This would also require better guidance to participants on developing such a plan (among other measures, provision of a skeleton outline of a state-of-the-art plan for use and dissemination). cf. Eurostars

##### **4.2.2: Requirements for IPR policies and guidance in other instruments (e.g. ERIC)**

Participants in other instruments would be well assisted if outline documents could be provided for them, specifically since the policies ought to be based on common ERA approaches. At present it is possible to end up with widely varying policies, differing in points where there ought to be harmony.

- Good examples of state-of-the-art guidance given may for instance be found in Eurostars, specifically regarding the consortium agreement between the partners (skeleton agreement is provided for participants).

- A requirement could be put in the Common Strategic Framework Model Agreement that participants follow best practice concerning the use of laboratory note books (important in a KT context towards the United States)

- The requirement concerning Open Access at present applicable to specific parts of FP7 (the pilot) should be made global and should also apply to projects cofunded together with national funders.

- A reference to the Commission Recommendation on knowledge transfer *and to the Council Resolution of 30 May 2008 on the management of intellectual property in knowledge transfer activities and on a Code of Practice for universities and other public research organisations* could be inserted in the Common Strategic Framework Model Agreement, with the following (or stronger) wording:

*The beneficiary shall:*

*have regard to the general principles of the Commission Recommendation of 10 April 2008 on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations and to the Council Resolution of 30 May 2008 on the management of intellectual property in knowledge transfer activities and on a Code of Practice for universities and other public research organisations*