Industry-academia partnership policies and practices in Europe

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## What is the European Research Area?

In 2000, the EU decided to create the European Research Area (ERA). This means creating a unified area all across Europe, in which we should:

- Enable researchers to move and interact seamlessly, benefit from world-class infrastructures and work with excellent networks of research institutions;
- Share, teach, value and use knowledge effectively for social, business and policy purposes;
- Optimise and open European, national and regional research programmes in order to support the best research throughout Europe and coordinate these programmes to address major challenges together;
- Develop strong links with partners around the world so that Europe benefits from the worldwide progress of knowledge, contributes to global development and takes a leading role in international initiatives to solve global issues.

## **Facts & Figures**

## The EU is the world's largest producer of scientific output ...

	US	EU
World share of scientific articles	33%	38%

# .. but has problems in exploiting it through e.g. patents, licenses and spin-offs.

	US (AUTM)	EU (ProTon)
Survey respondents (universities)	228	392
No. of invention disclosures	27382	4570
Priority patent applications	10272	2310
No. of options and licenses	4932	731
No. of spin-offs	628	434

## Issue / challenges

- To increase European competitiveness
- **More** knowledge transfer activities are needed:
  - R&D collaborations with industry
  - licensing, in particular to SMEs
  - creation of spin-off companies.
- Which will lead to an increase of exploitation of publiclyfunded R&D results by public research organisations (including universities)
- Proper or improved management of intellectual property by universities and other Public Research Organisations is key for effective knowledge transfer to industry.

## The EUROPEAN UNION STRATEGY



#### COMMUNICATION FROM THE COMMISSION TO THE COUNCIL:

Improving knowledge transfer between research institutions and industry: embracing open innovation

- Implementing the Lisbon agenda - {SEC(2007) 449}

Voluntary guidelines for universities and other research institutions to improve their links with industry across Europe

## Cap 3. GUIDELINES

- 3.1. Policy Issues for Heads of Research Departments / Faculties
- 3.1.1. Intellectual Property (IP) Policy
- The research institution should define and communicate a long-term strategy in relation to the management of IP and Knowledge Transfer (or more broadly innovation), including a strategy as to how these activities should be pursued. Ideally, this will be developed in consultation with the PRO's stakeholders.

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Research Institution Intellectual Property's policy good practice is adequate when:

- ensure that inventions can be identified easily and, where appropriate, protected
- make the research institution a more attractive partner by providing evidence relating to the research institution's expertise in IP management
- make inventions more visible to external stakeholders, in order to promote their exploitation (through licensing, etc.)
- promote the use of publicly-funded research results, including the spinning out of new companies
- provide a formal incentive mechanism for staff who participate actively to knowledge transfer

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL: Improving knowledge transfer between research institutions and industry: embracing open innovation – Implementing the Lisbon agenda – {SEC(2007) 449}

Although may vary from one research institution to the other, a typical good practice of IP policies covers the following issues:

– Ownership of research results and associated IP rights

- Rules applicable to "non-employees" of the research inst. such as students
- Management, protection, and promotion of the exploitation of IP rights
- Negotiation of IP issues raised during interaction with industry (ownership of IPconfidentiality, etc.)
- Incentives for researchers who participate actively to knowledge transfer

## **GREEN PAPER**

# The European Research Area: New Vision and New Perspectives

COM(2007) 161: identify as essential the follows points:

- An adequate flow of competent researchers with high levels of mobility between institutions, disciplines, sectors and countries
- World-class research infrastructures, integrated, networked and accessible to research teams from across Europe and the world, notably thanks to new generations of electronic communication infrastructures
- Excellent research institutions engaged in effective public-private cooperation and partnerships, forming the core of research and innovation 'clusters' including 'virtual research communities', mostly specialised in interdisciplinary areas and attracting a critical mass of human and financial resources;
- Effective knowledge-sharing notably between public research and industry, as well as with the public at large;
- Well-coordinated research programmes and priorities, including a significant volume of jointly-programmed public research investment at European level involving common priorities, coordinated implementation and joint evaluation; and
- A wide opening of the European Research Area to the world with special emphasis on neighbouring countries and a strong commitment to addressing global challenges with Europe's partners.

## ERA Partnership

- systematically open recruitment;
- meet the social security and supplementary pensions needs of mobile researchers;
- provide attractive employment and working conditions; and
- enhance the training, skills and experience of researchers.

## COUNCIL OF THE EUROPEAN UNION Brussels, 13 April 2007 CHARTER for the management of intellectual property from public research institutions and universities (IP CHARTER)

#### **Focuses of the Charter**

- **Careful and responsible management of research results and inventions**
- Promotion of long-term and sustainable research cooperation
- Mutual respect, understanding and transparency in research cooperation
- Creation of organizational structures and mechanisms for professional IP management
- Further training for researchers to raise awareness of IP issues in research cooperation and to prevent an uncontrolled know-how drain
- Promotion of the commercialization and public exploitation of protected inventions to increase competitiveness and economic success
- Promotion of the exploitation of research results through start-ups and spin-offs
- Consider the special legal, social, cultural and economic conditions in the countries where research results are generated or are to be exploited
- Support by specially trained experts for researchers in multinational contract and IPR negotiations.

## **IP Charter CODE OF CONDUCT :**

A) collaborative research, B) contract research and C) research promotion with public sector funds

## A) Collaborative research

- The party generating the research results will be the owner of such results or have the right to use them pursuant to the applicable law.
- All partners should benefit from favourable conditions for the transfer of rights of use and for mutual claims. The cooperation partners will, for example, agree on whether or not to file a patent for an invention.
- Public fund providers should remain neutral with regard to the exploitation of intellectual property but should at the same time ensure that equal consideration is given to the interests of all cooperation partners

## **IP Charter CODE OF CONDUCT :**

A) collaborative research, B) contract research and C) research promotion with public sector funds

## B ) Contract research

- The partners will reach a written agreement about the status of the owner, about publication and about the rights of use of the research results
- Agree in writing the provisions governing the use of the available know-how
- Elaborate contractual arrangements regarding the remuneration of researchers for their work and inventions

## **IP Charter CODE OF CONDUCT :**

A) collaborative research, B) contract research and C) research promotion with public sector funds

## C) Research promotion with public sector funds

- The ownership standards applied by public funding agencies will be observed
- Consideration will be given to specific obligations regarding the protection and exploitation of intellectual property
- Just like other research results, the results generated by publicly funded research can be the subject of licensing or transfer to private enterprises
- Funding agencies will be informed about research results and intellectual property

**COMMISSION RECOMMENDATION** C(2008)1329 on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations

- 1. Ensure that all public research organisations define knowledge transfer as a strategic mission;
- 2. Encourage public research organisations to establish and publicise policies and procedures for the management of intellectual property in line with the Code of Practice set out in Annex I;
- 3. Support the development of knowledge transfer capacity and skills in public research organisations, as well as measures to raise the awareness and skills of students in particular in the area of science and technology regarding intellectual property, knowledge transfer and entrepreneurship;
- 4. Promote the broad dissemination of knowledge created with public funds, by taking steps to encourage open access to research results, while enabling, where appropriate, the related intellectual property to be protected;
- 5. Cooperate and take steps to improve the coherence of their respective ownership regimes as regards intellectual property rights in such a way as to facilitate crossborder collaborations and knowledge transfer in the field of research and development;

**COMMISSION RECOMMENDATION** C(2008)1329 on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations

- 6. Use the principles to adapt national guidelines and legislation concerning the management of intellectual property and knowledge transfer by public research organisations, AND **to conclude agreements concerning research cooperation with third countries**,
- Take steps to ensure the widest possible implementation of the Code of Practice, whether directly or through the rules laid down by national and regional research funding bodies;

**COMMISSION RECOMMENDATION** C(2008)1329 on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations

- 8. Ensure equitable and fair treatment of participants from Member States and third countries i international research projects regarding the ownership of and access to intellectual property rights, to the mutual benefit of all partners involved
- Designate a national contact point, the tasks of which should include the coordination of measures regarding knowledge transfer between public research organisations and the private sector
- 10. Examine and make use of the best practices set out in Annex II, taking into account the national context;
- 11. Inform the Commission by 15 July 2010 and every two years thereafter of measures taken on the basis of this Recommendation, as well as their impact

## The Commission Recommendation...

- ... provides Member States with key principles for establishing or adapting intellectual property / knowledge transfer policies
- ... provides public research organisations with more operational principles ("*Code of Practice*") for setting up institutional policies and knowledge transfer systems (Annex I)
- ... proposes best practice examples for Member States to support implementation of the recommendations (Annex II)

## Some Recommendations to Member States

- Ensure that public research organisations define knowledge transfer as strategic priority and develop and publicise respective policies and procedures
- Support the development of knowledge transfer capacities and skills, also among students
- Promote broad dissemination of research results while enabling protection of intellectual property
- Cooperate and take steps to ensure **coherence of ownership regimes** and to facilitate cross-border collaborations and knowledge transfer
- Ensure equitable and fair treatment of all participants in international R&Docollaborations (ownership and access rights to IP)

## **Code of Practice**

for universities and other public research organisations

 Principles for an internal intellectual property (IP) policy for effective management of their own IP (policy, rules, procedures, incentives, awareness, training, ...)

- Principles for a knowledge transfer (KT) policy focusing on active transfer and exploitation of IP (exploitation strategies and policies, including for licensing and spinoffs; access to professional KT services; sharing of financial returns; monitoring of KT activities)
- 3) Principles regarding collaborative and contract research (basic principles for IP ownership and access rights) 11/29/2009

## **Principles for an internal IP policy**

- IP policy should be a long-term strategy and mission, easy accessible with responsible contact point
- Policy should contain clear rules for staff
  - Disclosure of new ideas of commercial interest
  - Ownership of research results
  - Engagement with third parties
  - Publication, dissemination policy
- Develop policy in line with mission regarding identification, exploitation, protection, open access etc.
- **Creation of IP portfolios**, setting up IP pools
- Training for IP awareness and basic skills in IP and KT

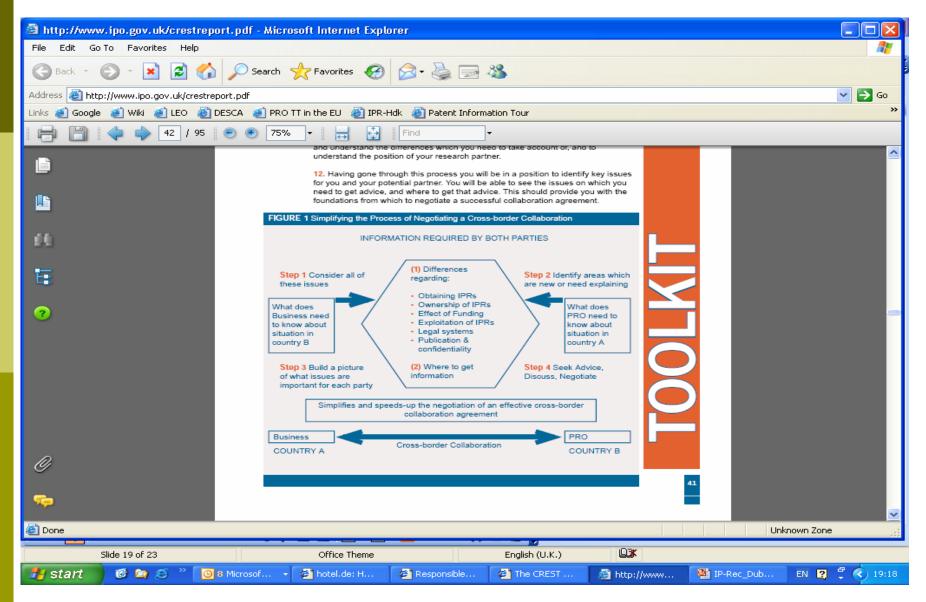
## Knowledge transfer policy

- Consider different exploitation mechanisms and partners (e.g. spin-offs, innovation support service etc.)
- Have own or access to professional knowledge transfer service (advice on legal, financial, commercial, IPR etc.)
- Develop and publicise a licensing policy (transfer of ownership or exclusive license?)
- Clear principles on financial returns from KT revenues between PRO, department, inventor
- Monitor, benchmark IP protection and KT activities and make them visible

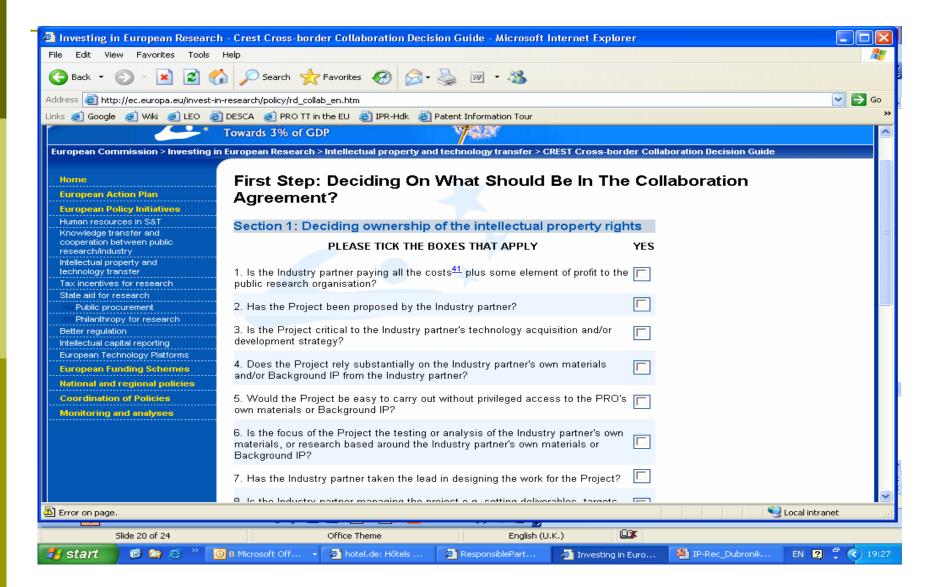
## **Collaborative and Contract Research**

- Rules and activities should be compatible with mission of each party
- IP issues should be clarified at management level and as early as possible (identification of IP, sharing of revenues etc.)
- **Ownership** of foreground in **collaborative** and **contract** research
- Access rights should be clarified from the beginning of project

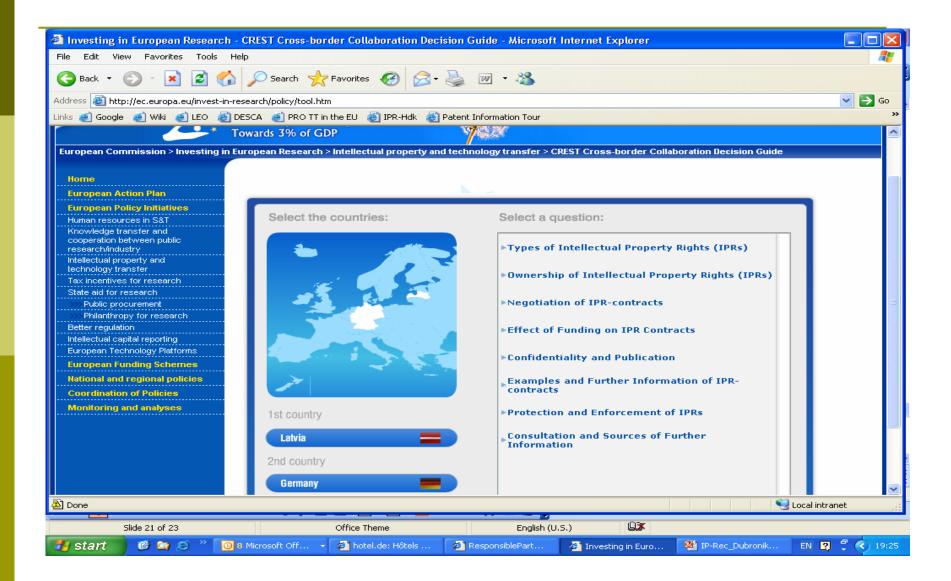
## **CREST Toolkit for collaborative research**



## **Interactive toolkit**



## **Interactive IP Tool**



## **Next steps / Monitoring**

- Very positive **Council Resolution** adopted by the Competitiveness Council in May (welcoming and supporting).
- Follow-up and monitoring of implementation :
  - MS should «Inform the Commission by 15 July 2010 and every two years thereafter of measures taken on the basis of this Recommendation, as well as their impact »
  - Commission-MS partnership for the follow-up and monitoring of implementation of the Rec., exchange of best practices, etc. : e.g. ad-hoc group under CREST
  - DG RTD will establish thematic forum on KT within the "University-Business Cooperation initiative of the Commission (with reps. from Us/PROs", industry, public authorities): follow-up of the implementation, exchange best practice on the Code of
    <sup>11/29/2</sup>Pfactice, ...

#### DRAFT REPORT TO THE COMMISSION (DG RESEARCH)

"Monitoring and Analysis of technology transfer and intellectual property regimes and their use" 15 December 2008

#### PROFESSOR'S PRIVILEGE: what is ?

"Professor's privilege" is the concept that the results of publicly-funded research created or developed by researchers (professors) are owned by that researcher and not the institute where the research is carried out

In some Member States the results of publicly-funded R&D may be owned by the researchers/professors, whereas in most other countries the results belong to the institution (university or public research organisations (PRO)) in which they were developed

The few Member States having a professor's privilege appear to be satisfied with it, in the absence of decisive evidence suggesting the need for a change in their regime.

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## CURRENT SITUATION IN THE EU:

The IP systems in the EU currently vary between Member States which maintain a system of professor's privilege (inventor ownership) and those which maintain a system of institutional ownership

The general trend in the EU is characterized by a movement towards institutional ownership and facilitating technology transfer.

In some Member States this has resulted in a shift from professor's privilege to institutional ownership.

Notably, in one Member State there has been a shift from institutional ownership to professor's privilege

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## Fig 1. Overview of Ownership Systems in the EU

Professor's Privilege: Sweden, Italy.

Institutional Ownership: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland15, France, Greece, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovak Republic, Spain, UK.

Public Research Acts: Austria, Belgium, Czech Republic, Denmark, Finland, Portugal, Slovak Republic, Slovenia, Germany.

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## Links to some national initiatives

#### TTO:

- http://www.protoneurope.org/
- <u>http://www.technologieallianz.de/</u>

#### Code of Practice / Management of IP

- <u>http://www.responsible-partnering.org/</u>
- <u>http://www.eirma.org/documents/Denmark/2005-DKCodex.pdf</u>
- http://www.ipo.gov.uk/managingipguide.pdf

#### Patent Offices:

- <u>http://www.epo.org/</u>
- http://www.wipo.int/portal/en/resources\_students.html
- http://www.innovaccess.eu/index.jsp

#### Model Contracts:

- <u>http://www.innovation.gov.uk/lambertagreements/</u>
- http://www.bmwi.de/Dateien/BMWi/PDF/foerderdatenbank/mustervereinbarungen-fuer-forschungs-undentwicklungskooperationen,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf

#### European decision guide / Toolkit / Management IP

- <u>http://ec.europa.eu/invest-in-research/policy/crest\_cross\_en.htm</u>
- <u>http://ec.europa.eu/research/era/pdf/iprmanagementguidelines-report.pdf</u>
- **PPP experience, FRANCE and NEDERLAND cases: a comparative analysis** 
  - http://www.ervet.it/documenti/ppp/Esperienze\_PPP\_Francia\_e\_Olanda.pdf
- ec.europa.eu/research/era
- ec.europa.eu/invest-in-research/policy/ipr\_en.htm
- ec.europa.eu/invest-in-research/policy/cooperation\_en.htm

# Thank you for your attention!

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