

The Intellectual Property in the collaboration between Public Research Organisations and industry

Nowadays new patterns of industrial innovation have emerged (often referred to as “Open Innovation” model) that emphasize the joint use of internal and external resources achieved through a combination of collaboration and competition. European Public Research Organisations (PROs) and firms are increasingly developing partnerships in their research and innovation missions, embracing this model in their university-business collaboration.

Companies and PROs have different missions, but their combined activities in the fields of education, research, development, innovation and knowledge transfer activities help to underpin the diversity and vitality of our societies.

Universities serve the public interest through their pursuit and dissemination of understanding, thereby providing advanced education and training, carrying out research and facilitating knowledge exchange and transfer. Their primary measures of quality relate to publication records, teaching standards and intellectual rigour. However, they and other publicly funded research organizations (especially those of a non-academic nature) are under pressure to become more self-sufficient, in some cases moving from public to private sector status, and to demonstrate that the institute’s knowledge and skills have broader value and are managed and developed professionally.

In turn, companies use knowledge and skills to satisfy customer needs, maximize shareholder value and respond effectively to competition and product complexity. Speed, consistency and predictability are central to reducing the risks inherent in their activities.

It is widely recognized that a well-managed collaboration between public and private sector bodies benefits everyone. Taking a strategic approach to collaboration enables the development of radically new products and services and better innovation, thereby creating more value from the investments made and greater effectiveness as well as efficiency. Furthermore, by establishing better foundations for successful research partnerships and knowledge exchange, it reinforces the value of the PRO within society, thereby enhancing the prospect for continued top-quality research and education.

Effective management of Intellectual Property (IP) is central to the knowledge transfer process, particularly since the emergence of new types of knowledge-based industry is straining the IP system, and involves protecting their Intellectual Property in ways that facilitate value creation in a context of Open Innovation and maximise the potential for commercialisation, and using (and contribute to improving the relevance, quality and understanding of) public IP systems in ways that encourage future investment in public and private research.

“RESPONSIBLE PARTNERING” INITIATIVE

At European Level it is worth mentioning the Responsible Partnering Initiative, developed through close collaboration between EUA, the European Industrial Research Management Association (EIRMA), the European Association of Research and Technology Organisations (EARTO) and the European Network of Knowledge Transfer Offices linked to Universities and Public Research Organisations (ProTon Europe).

The origins of the Responsible Partnering Initiative date back to a major Conference which was held in 2004 which brought together the main stakeholders from universities, industry and public research organisations. As a result of the conference, a handbook based on good practices in university/industry collaborative research was published in 2005, entitled "Responsible Partnering: Joining Forces in a World of Open Innovation", fully revised in October 2009.

A guide to better practices for collaborative research and knowledge transfer between science and industry, the Responsible Partnering Handbook was designed to help senior managers in the public and private sectors responsible for the creation, transfer and application of knowledge. It is seen as a useful step in the process of facilitating more regular interactions between European universities and industry, of building trust and establishing mutually beneficial relations, while respecting each other's core objectives.

The Responsible Partnering Guidelines cover core areas that are crucial to university/industry collaboration concerning aligning interests, professional training and skills, consortia-building, intellectual property rights and patents and finally, importantly, building lasting relationships in collaborative research. The guidelines have been recognised as a pioneering European initiative in various European Commission Communications on improving knowledge transfer and the management of intellectual property rights, and have been recommended strongly for further implementation by the “Aho Report on Creating an Innovative Europe”.

<http://www.eua.be/eua-work-and-policy-area/research-and-innovation/Responsible-Partnering-Initiative.aspx>

Ways and rules to collaborate

Intellectual property matters are one of the fundamental aspects to be tackled by enterprises and PROs when they wish to finalise and manage collaboration necessary to achieve a successful research goal. In these cases enterprises have different modalities to establish relationships with a university or a public research institute.

A business company can develop research activity using its own competences and facilities or establishing convenient synergies with competent external experts. The public research system, including universities and other research institutes, owns relevant assets in terms of knowledge, skills, laboratories and instruments that can be accessed by the enterprises under appropriate conditions.

The collaboration between an enterprise and the public research system can be established in different ways whose regulation corresponds to different types of contracts. From this point of view it is important to understand the complete framework of the possible opportunities and forms of collaboration.

The contract provides the definitive description of the collaboration, by documenting what is to be done, the rules of conduct (including completion and termination) and applicable legal arrangements such as ownership, rights of use, management of intellectual property and the state of prior art.

In any case, before drafting any legal documents, the advisable key first steps are to establish what the proposed collaboration is intended to achieve and respective PRO and enterprise's interests and motivation in taking part, taking also into account that the collaboration has not only to reflect internal institutional objectives, policies and practices, but also has to comply with legal and regulatory requirements.

Collaborative research

Enterprises can develop research activities in collaboration with public research organisations focusing on thematic areas of common interest, aiming at improving the respective competences with specific joint actions. These research activities can include the use of equipment's, facilities and expertise of both contractors in order to foster a synergy between academic culture and professional industrial experiences.

In particular, enterprises can collaborate participating to research projects supported by public European, national or regional programmes.

Committed research

Enterprises can assign PROs to carry out industrial research, studies and surveys on productive processes, trials, measures, experimental tests and provision of technical and scientific advice.

PROs can count on advanced laboratories and competent research teams, specialized in many and diversified scientific fields. In this public research system a private company can find the adequate research structure to develop its project idea and can establish collaboration by signing a research or advisory contract.

The possibility to exploit highly qualified “research capacities” can introduce a significant advantage for a company operating in a highly competitive environment.

Patent licensing and assignment

Public research organisations have the chance to offer for sale and sell to enterprises the results obtained with their public research activity. In case they are owners of patents they may assign or grant licenses to enterprises, having also the right to exclude others from making, using, offering for sale or selling or importing the invention.

Licensing occurs when licensor grant exploitation rights over a patent to a licence. On the other hand, assignment involves the sale and transfer of ownership of the patent by the assignor to the assignee.

Researcher placement in enterprise

There are many different ways for enterprises to obtain the temporary placement at their facilities of researchers coming from the public research system. In some cases they have also the possibility to host researchers coming from foreign countries.

There are many forms of mobility of expert researchers and the enterprise has the possibility to choose the most adequate to its specific needs, starting from the less demanding and cheap solutions. For example it is possible to place a researcher in enterprise to elaborate a graduation thesis or a doctoral thesis. In other cases the company can host a researcher during its stage activity included within a master or a post –graduate course.

Access to instrumentations and laboratories

Laboratories of Public Research Institutes are normally used for academic fundamental research and for education purposes, but private companies can negotiate the access to these laboratories to carry out analyses, trials and calibrations remunerated according to appropriate rate.

Actually public research structures have at their disposal sophisticated equipment and skills that can be offered to the companies for technical experiments, official certification of results, including tests and measurements made on materials, appliances and manufactured products, according to the specific interest of the enterprise.

In the last cases the technical and scientific service results in a certificate that describes the results of tests and measurement that have been executed, without formulation of any specific advice.

Intellectual property aspects

As the main objective of PROs-business collaboration is to achieve innovative results or technical solutions, it is clear that the most critical points in its negotiation and management are the aspects covering the ownership and the management of the Intellectual Property involved, either considering it as “in-put” factor of the research as well as a result of it.

Consequently there are recurrent IP topics in the collaboration that shall be considered before and signing a research or collaborative contract/agreement:¹

Confidential information

How to manage and avoid the accidental disclosure of information that is needed for the collaboration and that has actual or potential proprietary value for the Parties.

Publications and confidentiality

The ability to publish results that are of scientific interest is an essential consideration for universities and some other PROs and companies.

¹ source: “Responsible Partnering Handbook - Joining Forces in a World of Open Innovation: Guidelines for Collaborative Research and Knowledge Transfer between Science and Industry” edition 2009.

Publication should not be delayed unnecessarily in order to permit filing for patent protection. When the scale of effort justifies such an approach, the partners may choose to establish mechanisms by which sensitive results can be taken outside the sensitive context, thereby permitting publication. Inclusion of confidential information belonging to the other parties will require prior written approval, but there should also be a general expectation that this will not be withheld without good justification.

Access rights to background information

The availability of background information and knowledge is a key consideration in selecting the partners. Consequently, it is important to agree what access rights will exist, and ensure that these are sufficient to allow the project to proceed satisfactorily and to permit results to be put to the intended use.

Conditions and restrictions must be defined prior to entering the agreement, to the extent that these are known after reasonable enquiry. Each party should know the circumstances in which its own technologies were developed or acquired, the history of its own patents and the fields of its own technologies, so that it can warrant that it is entitled to grant a licence on the contemplated use and that to its knowledge it is not aware of potential infringement of third party rights other than disclosed.

Ownership of foreground

A general starting point for collaborations is that each party owns the Foreground that it (or its employees) has generated. Careful consideration should be given to the ownership of inventions created jointly.

While joint ownership may be a possibility, this can lead to unintended problems, whereas allocating ownership arbitrarily is inequitable. Considerations include the possibility to gain future reward, controls over new applications, the ability to manage matters efficiently, and the legal implications of joint ownership. In such cases, a Joint Ownership Management Agreement should be agreed.

It is often important to differentiate between ownership and use. Giving partners efficient (sometimes exclusive) rights of use and ways of defending these rights can be sufficient, provided the inventor is able to manage the responsibilities that go with ownership.

Unless agreed otherwise, each joint owner should have the right to use joint inventions and the Foreground IP thereon.

Except in special instances, licensing by each of the joint owners should be permitted to facilitate maximum use. All parties must have the right to sub-licence if they are to have equal rights to commercialise jointly owned Foreground IP.

Patents and other IP

The usual situation is that each party will take steps to protect its own inventions at its own discretion. The handling of joint inventions should be discussed: for example whether the PRO or the company shall file for protection or only assist the other party in filing; the terms on which licenses are granted; whether the commercial partner shall bear the costs of the PRO's activities or vice versa; etc. The parties should also consider who will be responsible for defending patents and pursuing infringements.

Licence for use

Each party will expect fair compensation for the commercial use of the inventions that it has helped generate. Deciding "what is fair" will depend on the nature of the collaboration but also on a sense of realism about future costs and risks. (Such fair compensation may also be in-kind, e.g. free access to each other's Foreground).

In the "Responsible Partnering" approach one of the considerations is to ensure maximum beneficial use of knowledge that has been generated partly through public funding. This can be achieved by establishing non-exclusive licences to several licensees or by granting exclusive licences to the partner on those uses that he is committed to develop diligently.

The granting of exclusive rights to partners in their areas of commercial interest is typically a preferred route for universities wishing to licence unexploited IP to new ventures, as a non-exclusive licence is often not attractive to new ventures seeking to raise investment.

Compensation can take many forms, for example licence fees, milestones, running royalties or by sharing profits and can be subject to exercising a license option on defined terms, but also other benefits that a party may get from the collaboration such as use of equipment that the other party has made available for the project, the opportunity to publish collaboration results or even the cooperation itself. Assignment of IP is possible as an alternative to exclusive licences, often subject to grant-back of non-exclusive licenses in the non-exclusive field. The agreement should generally avoid restricting the use of results for research and teaching purposes by PROs.

Partnerships for better
innovation support



In general we can conclude that one of the most critical point is to find a convenient balance point between the need of a wide diffusion of research results, especially trough scientific publications, and the need of careful protection of confidential information and the adoption of patent strategies for commercial purposes.