Creating values – IP exploitation in Horizon 2020

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Identifying business opportunities

Paving the route to successful exploitation, IP takes an essential role in the entire life cycle of R&D projects funded through Horizon 2020 and should be carefully considered from the very beginning of the preparation of a project. The fact sheet on “IP management at the proposal stage” provides a checklist for the drafting of an exploitation plan addressing the major issues to be considered in terms of IP:

- How will results be protected? How will Joint Ownership be treated?
- How will the exchange of background and results among partners and external stakeholders be managed? What are the best conditions to grant access rights?
- What are the best and most viable routes for exploitation of Horizon 2020 results?

Horizon 2020 is a very attractive and flexible programme to develop creative solutions to incorporate intellectual assets into proper business strategies. Horizon 2020 is very open for Business. More than any of the former EU RTD framework programme initiatives, it is calling for ideas and strategies to identify proper exploitation routes. There are great opportunities and there are not many limits to design the most suitable exploitation strategy at consortium and/or individual participant level. Exploitation channels may encompass a wide range of different paths to bring research results to the marketplace such as:

- Improving existing/developing new products and services to be more competitive in existing and/or emerging new markets;
- Creating new businesses for further exploitation, i.e. Spin-offs or Joint Ventures among project partners or involving third parties outside of the project;
- Taking advantage of licensing opportunities by negotiating the right type of licence to be granted, e.g. exclusive, non-exclusive or sole licence, and whether it should be limited by the field of use and/or territory. By nature, licensing is a viable and the most common approach to create business opportunities out of research results.

Horizon 2020 is the framework programme of the European Union (EU) for research and innovation for the period 2014-2020. With Horizon 2020, the EU aims at strengthening the European scientific and technological base and fostering benefits for society as well as better exploitation of the economic and industrial potential of policies of innovation, research and technological development. In fact, it is essential that the public resources and efforts used in research are converted into socioeconomic benefits to the EU. For this reason Horizon 2020 establishes commitments from the participants in terms of exploitation of the projects’ results, including their protection through intellectual property (IP).

Effectively exploiting research results depends on the proper management of IP, which should be part of the overall management of knowledge in the project. Indeed, it is generally the case that the results of research and development activities require further and often substantial investments to take them to market, which is appealing if the results are well protected through IP. IP is in this way a cornerstone for an effective impact of research results in society, due to its capacity to give its holders a competitive advantage in the market. Even though IP protection requires time and resources, it has nevertheless clear advantages both for research organisations and companies. On the one hand it facilitates technology transfer, while on the other hand it enhances the opportunities of companies for growth.

It’s all about IP – The key to sustainable success

Horizon 2020 collaborative projects differ in their innovation dimension, but as a common principle, they bring partners with different business mind-sets and interests around a table. Expectations and strategies regarding the commercial use of project results are driven by the value and exploitability of IP generated in the project on the one hand and the overall business orientation of the participating institution on the other hand. An IP exploitation strategy at project level can only be successful if institutional IP policies are carefully incorporated and respected in the overall approach.

It comes therefore as no surprise that participants in Horizon 2020 are expected to effectively manage IP within their project, which in collaborative projects – in particular with a high Technology Readiness Level - gains a higher importance. Indeed, even though a research collaboration leads to lower R&D expenses and risks, which are distributed among all the partners, it can lead to disagreements in terms of results ownership, use and even misappropriations if no steps are taken to protect the interests of partners.

The European IPR Helpdesk has therefore recently published two fact sheets, which are part of a series of three, dealing with the management of IP in the different stages of Horizon 2020 projects. These fact sheets are available in our library.
(i.e. Enterprise Europe Network, European IPR Helpdesk) are available at European, national and regional level to enhance the innovation capacity of SMEs.

Besides the risk of IP conflicts among consortium partners that might hinder the smooth implementation of a project, a lack of expertise in IP management and knowledge transfer also poses a threat to the successful exploitation of project results. Far too often the full potential of commercialising research results remains unrecognised and thus not fully tapped due to inadequate experience and expertise in IP management. This insufficient exploitation of research results contrasts with the rising importance and demand of professional exploitation strategies, which are already an inherent component of collaborative research projects at the proposal stage.

Therefore, with the start of Horizon 2020, the European IPR Helpdesk has implemented an extended focus on IP aspects of downstream activities. With our increased market-driven approach, we place more emphasis on turning research outcomes and technological developments into value-creating products and/or services.

**EU IPR Helpdesk Training activities 2014 – the new (market-driven) approach:**

Already at this very early point of the programme implementation, it is well noted that the stronger business orientation of Horizon 2020 significantly reinforces the question of proper IP management management. As a result, we clearly see at the EU IPR Helpdesk an increased demand by beneficiaries, and SMEs in particular, for more strategic advice and training on IP management and exploitation opportunities.

It is in this context that, in 2014, the European IPR Helpdesk offers additional training formats to provide even better “hands-on” strategic advice on IP downstream activities. The new service package addresses the full innovation lifecycle by focusing on the translation of projects’ results into innovative applications in the different technology and business sectors. Training formats are tailored to the different needs and requirements of participants in FP7/Horizon 2020 projects and provide project participants with a comprehensive picture of different exploitation options and strategies to ensure the commercial and innovative value of research results to be fully unlocked. As a matter of fact, the whole process and success of innovation relies upon IP, but needs to be complemented with skills on business development and finance - a fact which is well considered in our training activities.

**Training specialties**

As an example, within the new training module “Exploitation strategies and business opportunities for successful participation in Horizon 2020”, we provide best practices in the preparation of viable business/exploitation strategies and plans which might be of particular interest for participants in the new SME instrument.

Targeting SMEs, our training courses will communicate the message that IP issues in Horizon 2020 should be closely embedded into corporate business planning, so that SME participants can appreciate the value of IP in resolving business problems and contributing to the “bottom line” of day-to-day business activities.

Hopefully, with our market-focused training approach, the European IPR Helpdesk can contribute to stimulating and enabling Horizon 2020 participants to use the world’s largest innovation funding programme for strategic investment, and as an efficient tool for further business development.

**Let’s hear a bit more about the importance of IP exploitation from Dr Eugene Sweeney, Director, Iambic Innovation Ltd, Abingdon, United Kingdom.**

1. **What is your personal experience in creating markets out of research results? What are the challenges/difficulties?**

Trying to creating markets out of research results has its own very special challenges. Research results are very early stage and not market ready. To get them ready for market usually needs significant investment by a “take-to-market” partner prepared to take the risk. This applies whatever the commercialization route is; be it through licensing, a spin-out or a joint venture. In all cases, a proposition must be made to potential industry partners, licensees, or investors, to become involved and take some risk. Often a convincing case cannot be made until further work is done (for example, proof of scale-up), for which funding is needed. In my experience, getting research results to the stage where a convincing “take-to-market” business case can be made is one of the major hurdles to overcome.

2. **What’s the key to success in managing impact and innovation in H2020?**

Impact and Innovation needs to be managed in all areas of H2020 projects, not just the dissemination and exploitation parts. For example, during the development phase of the project it is important that key results (IP) are identified, captured, assessed, protected (if that is what is needed), managed and nurtured. The development and exploitation plans seek to deliver and position the research results,
in order to move on to create innovation, and to deliver the impact specified in the work program. The strategies help define the plans - but management is key to delivering the successful outcome. Management of impact and innovation means having good structures and processes in place to manage the valuable research outputs after they have appeared!

3. What are the key points in developing a strategy to maximise impact and exploitation?

Understanding the whole environment in which the innovation is to be employed is key. This means understanding the market (size, growth, segments and regions), technologies (other solutions to the same problem), the IPR landscape, potential competitors or partners (already in the market, or other research projects addressing the same topic). Knowing this will allow the opportunities for innovation and impact to be identified and justified, and the proposed solutions positioned for success in the marketplace. It will also be the basis for planning a route to get there.

4. What are the essential IP and innovation management aspects to be considered and properly addressed at the proposal stage of H2020?

At the proposal stage it is essential to demonstrate an understanding that innovation management starts even before the creation of the IP. Even before the Grant Agreement is signed, there needs to be a draft Consortium Agreement, which shows agreement in principle from the partners concerning IP and its exploitation (background, foreground, sideground, access and usage right during and after the project ends, for research and/or commercial use, etc.).

During the project, it is important that there are management systems and procedures in place to ensure that researchers are aware of IP issues, so they can recognize IP when they create it and make the project team aware; so that steps can be taken to assess, protect (if necessary) and properly exploit and disseminate. A draft exploitation and dissemination strategy and plan can also be presented at proposal stage, since the proposal should identify clearly the expected research results. During the project the individual strategy can be further refined.

5. What are the major elements of a convincing strategy to exploit H2020 project results successfully?

As mentioned earlier, the exploitation strategy should be based on a thorough understanding of the environment, which will lead to an achievable plan. For this to be convincing, the strategic decisions made and the planned actions need to be fully justified, that is to say backed up with evidence. Justified by fact, not opinion! A convincing exploitation strategy should explain what you aim to achieve and why; the exploitation plan should explain how you will reach your objectives. It is important not to forget the "how" and to demonstrate that this is achievable with the planned skills and resources, remembering that most exploitation will happen after the project end.

For more information see below our next IP training sessions, also with Eugene Sweeney: