FixO3 - Deliverable D5.4: An IPR agreement for the technology clusters

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<td>Description</td>
<td>Identify the most appropriate Intellectual Property clauses that will enable commercialisation with industry partners while preserving appropriate IP rights. It involves the background IPR that research institutes or SMEs bring to FixO$^3$ that have been identified as a product or service of interest to the commercial developers of ocean observatories. The current academic IPR agreements are not generally acceptable to the commercial sector. Therefore guidance on IPR agreements that a research organisation or SME can use in its negotiations with commercial developers is required</td>
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I. Introduction

In Report D5.2 – *List of Commercial Sector Needs* an ocean observatory technology cluster of companies was identified. The Report recommended that the momentum of the cluster be maintained by hosting at least one annual event such as the Innovation Zone and “Meet the Investor” Workshop at Oceanology International. For the duration of FixO³, up to August 2017, SLR and Ifremer will be responsible for organising the annual “Meet the Investor” Workshop at Ocean Business in Southampton in April 2015 and 2017 and at Oceanology International in March 2016. These events will be used to match Tier 3 company needs for products and services with TRL7 equipment, sensors and software being used on FixO³ observatories. The objective of this “match-making” is to develop commercialisation agreements between companies. The primary objective of commercialisation of EC funded research is the creation of sustainable jobs in Europe.

Where Tier 4 spin-off companies from the research community wish to partner with large equipment manufacturers and suppliers to commercialise a product the advice from government enterprise agencies is that the spin-off company should own the foreground IP with appropriate licensing rights assigned to the other partner (Enterprise Ireland, 2014). This Report D5.4 investigates and identifies the most appropriate IPR and technology/product agreements for FixO³ beneficiaries and suggests wording under an “Intellectual Property” clause that should appear in any contract, including licensing, that may be drawn up between new start-up companies and the Tier 2 companies that wish to commercialise the product or service.

This report does not remove the need to engage a patent lawyer and obtain legal advice on specific contracts where needed. It aims to give a starting point for discussions with legal advisors on the best approach and is designed to save time and money for the start-up company.

II. Background

FixO³ beneficiaries are bound by Part C of Annex II of the Grant Agreement which defines intellectual property rights. If the IP of the FixO³ beneficiary already exists or has been created as a result of EC funded research then the industry partner will negotiate a licence or assignment with the owner of the IP. If the IP was developed as Foreground within the FixO³ project the EC must be notified and the other FixO³ partners’ rights of access will have to be protected. In the case of the products and services used on FixO³ observatories almost all of the IP is background (i.e. in place before the FixO³ project commenced and provided for use in the project).

The purpose of this report is to share the experience of commercialisation and in particular the options for protecting IPR between established companies, that supply products and services to the FixO³ community, and new start-up companies that may arise from the activities of the FixO³ Project.

III. Method of Investigation

i. Literature Search

Part C of Annex II of the Grant Agreement was examined to clarify the responsibilities of FixO³ partners to protect the EC and FixO³ partners’ rights of access to Background and Foreground IP.

The EC IPR Helpdesk fact sheets were examined and the sections relevant to FixO³ were extracted.
A number of publications from the Irish enterprise development agency, Enterprise Ireland, relating to commercialisation and the licensing of IPR from publicly funded research were examined and sections relevant to FixO³ extracted.

University IPR agreements were researched including the IPR sections of the “Commercialisation Handbook” of Dublin City University and the Lambert IPR Agreements published by the Lambert Working Group on IP (https://www.gov.uk/lambert-toolkit#history-of-the-lambert-working-group-on-ip).

“Exchanging value, negotiating technology licensing agreements, A Training Manual” published by the World Intellectual Property Organisation is a valuable resource to inform the negotiation process.

ii. Stakeholder Engagement
To supplement the theoretical findings of the literature search, the IPR clauses of actual contracts raised by the Irish Petroleum Infrastructure Programme (www.pip.ie) with funded researchers were examined to see the range of options open to potential start-up companies. An example of an innovation partnership (a partnership between an industry partner and a third level institution to commercialise research) was examined in the Irish context to better understand the relative advantages to both parties and the negotiating position adopted by the industrial partner. This case example is between an oil industry consortium and a research centre within an Irish university to develop software code.

Some recently established technology companies (including Cathyx Ocean) who are successfully commercialising products for the offshore oil industry were interviewed in relation to IPR issues. They provided feedback on their negotiating position with large oil industry service sector companies who were interested in licensing the products. A number of companies (including Oceanlab) were interviewed at Ocean Business 2015 about their experience of successful and unsuccessful commercialisation of new products.

Discussions were held with patent lawyers Harrison Goddard Foote to understand the patent process and decide if this route was appropriate for some FixO³ products and services.

IV. Discussion of the IPR Issues
The reality is that IPR issues are complicated and differ from case to case. A patent lawyer will have to be involved in some stage of the process. Engaging a patent lawyer is an expensive activity and for that reason this report seeks to understand what the primary issues for FixO³ technology development might be and present some suggestions for the way forward. This may help to reduce time and money related to legal consultation.

The particular case we are trying to address is the commercialisation of a product or service developed by a research institute or SME for use on fixed point open ocean observatories. If the owner of the associated IP is within a third level research institute they will have access to legal advice on IPR protection from their research office. An SME may need to access this legal advice from a law firm. The following discussion provides some guidelines on the most appropriate approach to IPR protection.

The most common type of intellectual property we are concerned with in the case of FixO³ is patents. To be patentable the product must be technical, novel, have an inventive step and be useful. Many of the FixO³ products and services are already patented but are looking for a partner to commercialise the product by getting access to market. If the product is not already patented then a description must be captured in a
“Technical Disclosure” and an “Enabling Disclosure” which will be used in the patent application. The drafting of a patent application is the product of collaboration between a patent lawyer and the inventor. The ownership of the invention has to be established by a “Multiple Inventorship Form” signed by all inventors stating their respective contributions to the invention. Once the patent application is filed it can take over two years to obtain the patent grant.

A provisional patent application can be an effective way of securing patent protection. A provisional application is typically a simplified document that requires a specification and drawings, optionally with claims, and no oath/declaration, and is never examined by the patent office. A full patent application filed within 12 months may claim the benefit of the filing date of the provisional application. When patent budgets are limited, or a premature disclosure cannot be avoided, or market validation is desired before defining the scope of the patent, provisional patent applications can be quite useful. The lead time from obtaining a patent to achieving TRL9 (actual system proven through successful mission operations) can take up to 10 years as was the case with the development of the NOSS sensor by NKE Instrumentation.

A start-up company may protect know how and trade secrets, and avoid the cost of patenting an invention, by managing the IP through tight confidentiality protocols and non-disclosure agreements with inventors. The cost of obtaining the patent could be borne by a commercial partner in a subsequent licensing or joint venture agreement. In the case of a service innovation it cannot be patented. The recommendation in this case is that the FixO³ partner company should license the process innovation as a trade secret and adopt a First Mover Advantage with a partner well established in the defined market.

There are several ways for a research institute or SME to get the patented product into the market place including selling or assigning ownership of the technology to an existing company or licensing the technology to an existing company. In the case of FixO³ products and services we suggest that a university or research organisation should establish a spin-off company and assign the IP to the spin-off company to commercialise. The spin-off company is unlikely to have the technical or financial capabilities to bring the new product or service to market on its own. The spin-off company should seek a business partner to further develop the product or service and sell into the identified market through a licensing agreement. This business partner should be an equipment manufacturer or service company of scale who are well established in the target market. Through a licence agreement the spin-off company – the licensor – allows equipment manufacturer or service company – the licensee – to access and use their IP for a certain time period in return for financial compensation, either in the form of royalties on product sales or payment of a lump sum. The terms of licence agreements may vary widely, but they commonly provide for the exclusivity or non-exclusivity of the licensed technology, namely the right for the licensee to use the IP solely or in conjunction with the licensor. A licence can also be restricted to a particular purpose, such as research development, selling or manufacturing purposes. An assessment of the risks and related consequences associated with the licensing of the IP will decide what clauses need to be in the licensing contract and what level of insurance, if any, may be required.

V. Recommendations for further Contract Negotiation on IPR

The objective of WP 5 is to create the environment whereby research institutes and companies, who are developing products and services for use on the FixO³ ocean observatories, will identify and come into regular contact with potential business partners with whom they can jointly further develop and commercialise new products and services for a wider ocean business market.
In an early engagement with a potential business partner it makes sense to protect the IP by having the third party sign a non-disclosure agreement. Non-disclosure agreements (NDA) are legally binding contracts establishing the conditions under which the spin-off company discloses information in confidence to an equipment manufacturer or service company. This allows the equipment manufacturer or service company to learn more about the new technology and to evaluate their commercial and technical value. The NDA is usually a pre-cursor to a licensing agreement.

Depending on the level of trust between both parties a memorandum of understanding (MoU) might be necessary as the next step. The MoU sets out the intention of both parties to collaborate and is often used where there is a need to promote a new product or seek joint funding to develop the technology. Before committing to a long term licensing agreement the spin-off company might offer the equipment manufacturer or service company a distributorship agreement which would enable the equipment manufacturer or service company to distribute the new product or service in a specified market under specified terms and conditions.

The new product or service, which will be the subject of the licensing agreement, must be valued in some way. A prudent licensee cannot base decisions on the theoretical value of technology but rather on whether it will enhance their ability to gain revenues. If the price of the new technology, when added to the cost of the product, results in a cost of goods that is higher than what the market will bear, the licensee will lose money and the license negotiation will have been a wasted or harmful exercise. There are circumstances where increased revenue is not the objective of the licensing agreement. Rather the licensee wishes to be seen to use patented technologies that are “high-tech”. Ultimately, the objective is that both the licensor and licensee should share in the profits associated with the use of the technology in a fair and reasonable manner.

The valuation of the spin-off company’s new product or service should be done with the assistance of valuation professionals and accountants. To assist in particular SMEs performing basic valuations in-house, several national intellectual property offices in the European Union and other public organisations have created free tools such as IPscore, IP Tradeportal, IP Panorama and IP Healthcheck (European Commission, 2013). The most appropriate valuation method for a FixO³ spin-off company is the cost approach. The spin-off company’s investment in the technology is represented by those costs associated with developing, protecting and commercialising the technology. These expenditures are known to the licensor and can reasonably be estimated by the potential licensee. They represent the base, or minimum that the licensor will want to recover, with interest. A valuation is for the purpose of negotiating terms and conditions that would be acceptable to both parties.

A common theme from feedback interviews was that the research offices of universities are often unrealistic in their demand for a high share in royalty payments from commercialised IPR. There are many examples of lost revenue to universities as a result of failed negotiations with private sector partners in IPR commercialisation. A strategy of many low value IPR agreements with industry instead of very few high value agreements is the recommended approach.

**VI. Summary of IPR Clauses in Licence Agreements**

The licence agreement must contain clauses to protect confidential information, including know-how and licensed trade secrets, in addition to the patent. These clauses supersede any clauses contained in the original NDA signed in the early stages of the business relationship (World Intellectual Property
Organization & International Trade Centre, 2005). Such clause(s) would, inter alia, take into account the following:

(a) define what is meant by confidential information. Such a definition should, preferably, include not only that which is disclosed to the recipient but other information which it may receive or be made aware of as a consequence to the agreement;

(b) ensure that the licensee has, or undertaken to put in place, procedures for restricting the use of the information for the purposes as specified in the agreement and safeguarding it against disclosure. This may also include the possibility of verifying or auditing such procedures by the licensor or their authorised representative;

(c) provide for liability in the case of accidental or negligent disclosure of the information to third parties who are not subject to the provisions of the license agreement and who are not otherwise informed of the confidentiality of such information;

(d) spell out the exceptions to the obligation, such as if the information is publicly available, that is, it is already known or has become known to the recipient in a legitimate manner or if it had been independently developed by the recipient;

(e) clarify as to how long these provisions will continue after the termination of the agreement and specify when the information should either be returned or destroyed.

With respect to the granting of licensing rights our recommendation is that the spin-off company grants the equipment manufacturer or service company an exclusive worldwide technology licence to develop, manufacture, practice and sell the licensed technology in a specified field (e.g. environmental monitoring). The compensation clauses should be negotiated based on the cost approach to valuation as discussed in Section V above and periodic royalty payments and/or lump sums should be defined, payable subject to certain milestones or deliverables (e.g. commencement of commercial production). There are usually some obligations on the equipment manufacturer or service company to use “best endeavours” to develop and market the technology. It is also advised that minimum royalties and milestones to be achieved are put in the licence agreement.

The spin-off company may decide to restrict the equipment manufacturer or service company from sub-licensing. With respect to improvements we recommend that the spin-off company grants mirror rights on future improvements to the equipment manufacturer or service company. It is in the best interests of the spin-off company that improvements made during the joint development are shared so that the commercial value of the product or service is enhanced. If the spin-off company is responsible for all improvements to the product or service then an additional royalty to be fixed in advance could be included in the licence agreement.

Licensing implies a continuous relationship over a specified period of time between two parties working towards a mutually-rewarding outcome. To ensure that the relationship is rewarding to the parties it is important that they deliver on their respective obligations arising from the agreement. For example, for the spin-off company, there may be obligations to deliver, on a one-off basis or on a continuous basis, technical assistance to the licensee. The spin-off company will also be concerned about the maintenance of his intellectual property rights so that rights do not lapse or fall into abeyance, including, if trademark rights have been transferred, ensuring that the quality of the trademark is maintained. Trademark quality refers to proper trademark usage, based on trademark usage guidelines issued by the spin-off company and ensuring that the product conforms to required technical specifications of the licensed technology. In
addition, the spin-off company must maintain detailed accounting for royalties received, auditing of licensee’s accounts, developing the technology further, following agreed procedure in the case of improvements and defending the licensee against suits brought by third parties and suing third parties on behalf of the licensee. Likewise, the licensee has, in connection with the primary obligation to make royalty payments, the responsibility to put in place stringent accounting procedures, institute a regular reporting mechanism and allow for the auditing of its accounts. It also has the obligation to follow agreed procedures in case of improvements and take agreed measures in the case of infringements and, if a trademark has been licensed, to maintain the quality of the trademark. Further, if products are being manufactured using licensed patents, the agreement would probably provide that they be marked accordingly or the spin-off company may wish to control and approve how the licensee marks a product based on the patent. It is important that all of these obligations and how they may be implemented be clearly specified in sufficient detail in the agreement (World Intellectual Property Organization & International Trade Centre, 2005).

VII. Recommendations & Way Forward

Following an analysis of consultee’s responses at the Ocean Business event in Southampton in April 2015 the following approach is recommended. FixO³ suppliers that provide products developed on ocean observatories with potential application in the offshore Oil and Gas and Renewable Energy sectors will be interviewed and their commitment to commercialisation of their products assessed. Those willing to proceed will be advised on the protection of their IPR prior to identifying potential partners and routes to market.

Based on the analysis and conclusions of this report the following list is provided as options for protection and sharing of IP in contract documents between a Spin-off Company/SME and an Industrial Partner (UK Intellectual Property Office, 2014). The implication in each case is that the Industrial Partner is contributing different levels of financial support to the research and commercialisation of the product or service. The option chosen will be dictated by the amount of financing that the SME receives from the Industrial Partner:

Sample IP Agreement 1
- A Joint Venture Co. will be established in the event an alternate commercialisation proposal, separate to the Industrial Partner exclusive license, is to be pursued by both parties (50:50). This JV Company will exploit IPR in areas other than the specific research area.
- Exclusive licence to Industrial Partner to exploit IPR in specific research area system design. IP protection filed as joint ownership.
- Industrial Partner to pay the SME €30K, €10k/yr over 3 years. 1st payment starts end of project.
- Industrial Partner pays the SME a €10k in-kind contribution, outside of IP.
- Industrial Partner to pay 5% of net sales of new product for 3 years
- In the event that Industrial Partner sub licence, sell assign, or otherwise transfer their license to 3rd party a payment of €50K or 5% of the royalty fee is payable to the SME.

Sample IP Agreement 2
- Background IP remains the property of that party.
- Industrial Partner shall own all IP collectively developed during the project. Industrial Partner grants the SME a worldwide, perpetual, fully paid up, royalty free, exclusive, sub licensable to the IP to exploit areas other than the specific research area.
- Nothing to preclude the SME from conducting research in any field including “X”.
Sample IP Agreement 3
- Background IP remains the property of that party.
- Industrial Partner shall grant royalty free licences to the SME to exploit IP. Industrial Partner may refuse if it is to the detriment of Industrial Partner or its customers or provides benefits to its competitors.
- Industrial Partner shall pay royalty for each piece of sole SME IP exploited by Industrial Partner. The % royalty to be negotiated in good faith.

Sample IP Agreement 4
- Background IP remains the property of that party.
- Resulting IPR developed jointly shall be jointly owned.
- The Industrial Partner has the first right to patent IPR produced in core business areas.
- In the event of commercially viable output the parties agree to negotiate in good faith the terms of commercialisation and use of IPR.

Sample IP Agreement 5
- Background IP remains the property of that party.
- Foreground IP based on Industrial Partner background IP shall be the property of company. If commercialised the Industrial Partner will pay the Academic Partner a royalty, the % to be decided.
- Foreground IP not based on Industrial Partner background IP shall be owned by the SME. The SME to grant exclusive licence back to company for a defined period, in defined field, on reasonable terms.

Sample IP Agreement 6
- Background IP remains the property of that party.
- All results shall be owned by the Industrial Partner.
- The Industrial Partner grants the SME a perpetual royalty free non-exclusive licence to use results for all purposes solely in conjunction with SME background IP.
- The Industrial Partner is responsible for preparation and filing of any patents and all associated costs. If the Industrial Partner fails to honour these commitments the SME may take ownership of patents for its sole benefit.

Sample IP Agreement 7
- Background IP remains the property of that party.
- Foreground IP based on Industrial Partner background IP shall be the property of the Industrial Partner.
- Foreground IP not based on Industrial Partner background IP shall be owned by the SME. To facilitate commercialisation, the SME will grant exclusive licence to the company based upon either:
  a) a royalty payment of X % to be decided prior to signing the Innovation Partnership contract.
  b) EUR30K Industrial Partner Cash Payment, EUR10k/yr over 3 years and a EUR10k in-kind contribution. The 1st payment starts within one year of completing the current Innovation Partnership project.
  c) In the event that the Industrial Partner sub licence, sell assign, or otherwise transfer their license to 3rd party a payment of EUR40K or 5% of the royalty fee is payable to the SME.

Sample IP Agreement 8
- Background IP remains the property of that party.
- The SME will transfer all IPR accumulated through the project to the Industrial Partner.
- The SME will in return receive a 15% stake in the company.
Sample IP Agreement 9
- SME to disclose all inventions, findings, improvements, formulas, processes and the like arising from the research
- Resulting inventions & patents shall be jointly owned.
- The Industrial Partner has the right to negotiate an exclusive license. Financial benefit to the SME not to exceed 4 x value of Industrial Partner investment in the SME
- If the Industrial Partner fails to exploit results within 3 years the SME shall acquire, with the permission of the Industrial Partner the right to exploit results.

Sample IP Agreement 10
- Background IP remains the property of that party.
- The Industrial Partner owns IP and generated results
- The Industrial Partner grants the SME a free non-exclusive licence to use techniques and concepts for any product or service not in direct competition with the overall field or the industrial partner’s business.
- The SME can publish but will involve industrial partner in the editing of such document.

Sample IP Agreement 11
- Background IP remains the property of that party.
- Industrial Partner shall own IPR collectively developed during the project
- Industrial Partner shall pay €65K in cash payment for IPR. €20K on project completion followed by 2 x €22.5K.

In all of these cases the assumption is that the SME/Spin off Company has negotiated a separate win/win IPR agreement with the research office of the university where the IPR was generated.
Bibliography


