

Funding Agency Requirements & Guidelines

For

Managing Research-Generated Intellectual Property

Commercialisation Steering Group

February 2006

PURPOSE

- STIMULATE ECONOMIC AND REGIONAL DEVELOPMENT IN IRELAND AND THE EUROPEAN UNION THROUGH BUSINESS AND INDUSTRY ACCESS TO RESEARCH IN IRISH RESEARCH PERFORMING ORGANISATIONS (RPOs)
- ADVANCE IRISH RPOs AS PARTNERS OF CHOICE FOR COLLABORATIVE RESEARCH WITH BUSINESS AND INDUSTRY
- PROMOTE GOVERNMENT, BUSINESS AND INDUSTRY INVESTMENT IN RPO RESEARCH
- BUILD THE INTELLECTUAL FOUNDATIONS OF IRISH RPOs
- ESTABLISH A FRAMEWORK FOR CONSISTENT GOOD PRACTICE TO FACILITATE TECHNOLOGY TRANSFER AMONG IRISH RPOs
- OPEN RPO ACCESS FOR RESEARCH COLLABORATORS, SPONSORS, AND BUSINESSES SEEKING TECHNOLOGIES THROUGH GUIDELINES AND INFORMATION ABOUT RPO COMMERCIALISATION PRACTICES.

POLICY CONTEXT

This manual presents requirements for managing commercially useful research results. These requirements are established by participating research funding agencies to apply to their grant recipients. The requirements incorporate policies established by the Irish Council for Science, Technology and Innovation in the National Code of Practice for Managing Intellectual Property from Publicly Funded Research, April 2004, and the National Code of Practice for Managing Intellectual Property from Collaborative Research, November 2005.

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PARTICIPATING FUNDING AGENCIES

PARTICIPANTS: These intellectual property¹ management requirements and guidelines apply to Irish Research Performing Organisations (RPOs) as public research grant recipients. The following organisations have participated in developing this manual:

Enterprise Ireland (EI)
Forfas
Health Research Board (HRB)
Higher Education Authority (HEA)
Industrial Development Agency, Ireland (IDA)
Irish Research Council for Science, Engineering and Technology (IRCSET)
Science Foundation Ireland (SFI)

FUNDING AGENCY DISCRETION: Participating funding agencies offering grants will notify RPOs before offering a grant about:

The purpose for funding the research programme,
The agency's anticipated outcomes from the research programme, and
Whether the funding purpose precludes the full use of these guidelines.

ADDITIONAL REQUIREMENTS:

Individual Agency Criteria: Individual agencies may include additional intellectual property management criteria in their own awards. Consult agency staff and websites for agency specific information.

Irish Law and European Union Regulations: These guidelines and requirements intend to comply with and must be implemented in the context of Irish law and European Union regulations and guidelines.

¹ See Appendix B, Glossary of Terms, p. 53

EXECUTIVE SUMMARY

I. PURPOSE: THE NAMED SPONSORING AGENCIES present these guidelines for use by Irish Research Performing Organisations (RPOs) and for the information of third parties sponsoring or collaborating in RPO research, or negotiating access to IP resulting from RPO research.

THESE GUIDELINES AND REQUIREMENTS intend to:

- Stimulate economic and regional development in Ireland and the European Union through business and industry access to knowledge generated by RPO research,
- Advance Irish RPOs as partners of choice for collaborative research with business and industry,
- Promote government, business and industry investment in RPO research,
- Build the intellectual foundations of Irish RPOs,
- Establish a framework of consistent good practice to facilitate technology transfer among Irish RPOs, and
- Open access for research collaborators, sponsors, and businesses seeking technologies through information provided here about commercialisation practices of Irish RPOs.

II. SCOPE: THESE GUIDELINES AND REQUIREMENTS apply to management and commercialisation of intellectual property (IP) generated by *publicly sponsored RPO research*, and by *research jointly funded by public and private sponsors*.

III. CONTENT:

EXECUTIVE SUMMARY

- Overview of the 3 major sections of the Guidelines
- Fair Rules for managing and commercialising Intellectual Property generated by research that is fully or partly publicly funded

SECTION I:

- Purpose and Goals Statement
- Participating Agency Discretion to Set Grant Terms
- RPO Resources Management Responsibility

SECTION II:

- Guidance on Applying the Fair Rules
- Key Elements in Research Agreements - Sponsored, Collaborative or Contract Research - and Commercialisation Agreements
- Guidelines for Managing Joint Ownership of Intellectual Property
- IP Management Requirements of RPOs

SECTION III:

- Guidelines to RPOs for Negotiating Research and IP Management and Commercialisation Agreements.

Throughout this document, requirements are distinguished from guidelines. While guidelines are not mandatory, they are recommended as good practice.

IV. Fair Rules

A. RIGHTS TO ALL PARTIES IN SPONSORED AND COLLABORATIVE RESEARCH²

§ RIGHTS TO ALL PARTIES: RESEARCH PERFORMING ORGANISATIONS (RPOs), BUSINESS, INDUSTRY AND OTHER RESEARCH COLLABORATORS AND SPONSORS

- Best Practice in Conduct and Recording of Research
- Appropriate Confidentiality for Research and Results
- Timely Notice of Discoveries to All Parties
- Ownership of IP Invented by a Party's Own Employees
- Access to All Project Discoveries
- Retention of Clear Title to All Background IP³ and Proprietary⁴ Know-How the Party Brings to the Project
- Perpetual Access to Project IP⁵ for Internal, Non-Commercial Use⁶

§ RIGHTS TO BUSINESS, INDUSTRY AND OTHER PRIVATE COLLABORATOR(S) AND SPONSOR(S)

- First Option to Negotiate License to Exploit Project IP
- Reasonable Notice & Right to Review Intended RPO Publications
- Right to Require Removal of Its Confidential, Proprietary or Commercially Sensitive Information Before Publication
- Confidentiality from All Parties Regarding Research Results Until Reasonable Notice & Right to Review Is Provided, Up to 90 Days Following a Discovery
- Obligation After Review to Allow Academic Publication Without Confidential Information

§ RIGHTS TO RPOs

- Opportunity to Negotiate for License to Exploit Project IP Owned But Not Exploited by a Business or Industry Partner
- Right to Publish Research Results Without Confidential, Proprietary or Commercially Sensitive Sponsor or Collaborator Information
- Appropriate Training, Development and Publication Rights to Graduate Student Researchers Earning Degrees

² See Appendix B, Glossary of Terms, p. 55-56.

³ See Appendix B, Glossary of Terms, p. 54.

⁴ See Appendix B, Glossary of Terms, p. 54.

⁵ See Appendix B, Glossary of Terms, p. 53.

⁶ See Appendix B, Glossary of Terms, p. 53.

B. RESEARCH AGREEMENTS

- § **NEGOTIATION:** Research Agreements Should Be Negotiated in Advance of the Research Programme.
 - § **IP ACCESS, OWNERSHIP AND COMMERCIALISATION RIGHTS** Should Be Included in the Sponsored Research Agreement and Negotiated Before Research Begins.
 - § **SCOPE: THE RESEARCH AGREEMENT** Should Establish Governing Principles for IP Management and Exploitation, Commitment by All Partners to Demonstrably Reasonable Terms for Commercialisation, and a Duty Among All Partners to Exploit IP Fully and Timely in Ways Appropriate for the Technology.
-

C. IP OWNERSHIP

- § **CONTRACT RESEARCH**⁷: When the Partners Agree the Sponsor Has Contracted for the Research Programme, the Sponsor Owns Project Intellectual Property.
 - § **COLLABORATIVE & SPONSORED RESEARCH**: the Inventor's⁸ Employer Owns the Intellectual Property
 - § **EACH RESEARCH PARTNER OWNS ITS OWN EMPLOYEES' INVENTIONS**
 - § **WHEN RPO RESEARCHERS INVENT & OWN IP, PROJECT SPONSORS ARE GUARANTEED ACCESS TO PROJECT IP**
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⁷ See Appendix B, Glossary of Terms, p. 55.

⁸ See Appendix B, Glossary of Terms, p. 54.

D. JOINT INVENTION

§ JOINT INVENTION BY PROJECT COLLABORATORS CAN RESULT IN JOINT OWNERSHIP

- Employers of Joint Inventors Jointly Own the IP
- All Joint Owners Own the IP and Any Patent Rights in Full
- Joint Ownership Requires an IP Management Agreement Negotiated in Advance to Ensure Equal Rights to All Joint Owners and to Manage IP Commercialisation
- The parties may negotiate alternative ownership and access options within these guidelines

§ MANAGEMENT AGREEMENT - REQUIRED FOR JOINT OWNERSHIP to:

- Establish an IP Management Forum with Equal Representation of Joint Owners
- Allocate Costs Among Joint Owners for Processing and Maintaining Patent(s)
- Require Collaborative IP Management & Commercialisation by Joint Owners

§ MANAGEMENT AGREEMENT - EQUAL RIGHTS AMONG JOINT OWNERS

- Fair Outcomes Depend on Equal Opportunity, Cooperation, and Collaboration Among Joint Owners
- The Joint Ownership Management Agreement Must
 - Permit RPOs to License Project IP, and
 - Require Collaboration Among Joint Owners in Managing and Exploiting IP

***NOTE:** Under Irish patent law, all joint owners are free to commercialise IP directly but need permission from other joint owners to license IP. Because RPOs cannot commercialise directly and need to license to commercialise, the management agreement must provide RPOs equal commercialisation opportunity by permitting them to license jointly owned project IP.*

E. INTELLECTUAL PROPERTY MANAGEMENT REQUIREMENTS FOR RPOs apply to fully or partially publicly funded research programmes and are also recommended as standards for all other RPO research⁹:

§ INTELLECTUAL PROPERTY OWNERSHIP: Title to IP generated by fully or partially publicly funded research is granted to the employer(s) of the inventor(s).¹⁰ Funding agency advance written permission must be requested to negotiate to transfer RPO ownership interest as provided below.

RPOs are responsible to ensure all RPO staff and student participants in a research programme, provide signed agreements assigning project intellectual property to the RPO.

§ DUTY TO REPORT DISCOVERIES: When their employees or students invent, RPOs and other eligible grantee organisations must:

- Require inventors submit *timely reports of discoveries* to the RPO commercialisation office and to any collaborating research partners within 30 days of recognizing a useful discovery.
- *Report discoveries to the funding agency or agencies* within 60 days after the inventor files a discovery notice with the RPO commercialisation office, *and*
- *Report discoveries promptly to any other research sponsors* in accordance with terms of the research sponsorship agreement.

§ TIMELY EXPLOITATION: RPOs must ensure commercially viable discoveries in which they have an ownership interest are appropriately and timely protected and exploited to the maximum benefit of the Irish economy and the European Union.

§ FUNDING AGENCY APPROVAL IS REQUIRED TO ASSIGN, SELL OR TRANSFER RPO OWNERSHIP INTEREST in IP generated by fully or partially publicly funded research, including transfer to another RPO.

§ SHARE COMMERCIALISATION INCOME WITH INVENTORS: RPOs must share both royalty and equity income from IP commercialisation with inventors, and must have published policy that informs all staff, researchers,¹¹ post doctoral, graduate and other students, employees, and the public of their provisions for distributing commercialisation income.

§ IP MANAGEMENT POLICY: RPOs or other eligible grantee organisations are required to have published policy that informs all staff, students and the public about these IP management requirements.

⁹ See Appendix A.

¹⁰ For RPOs that do not have established policy regarding IP ownership, all participants in research funded research by the participating agencies are required to sign agreements assigning ownership of inventions within the research programme to the RPO.

¹¹ See Appendix B, Glossary of Terms, p. 55.

SECTION I. INTRODUCTION

A. SCOPE:

- Research may be fully or partially publicly funded. These requirements and guidelines apply equally to both.
 - Requirements and guidelines provided in this document apply to all non-profit research performing organisations that receive funding for research from the participating funding agencies.
 - Unless otherwise specified by the funding agency, the requirements always apply to the public funding contribution to a project and to any ownership interest in project IP that accrues to the RPO(s) that received research funding.
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B. GOALS & PURPOSE FOR INTELLECTUAL PROPERTY MANAGEMENT

GOALS: These IP management requirements and guidelines are provided to:

- Promote common practice for IP management across funding agencies and RPOs.
- Strongly encourage RPO, Business and industry research partnerships and technology commercialisation.
- Support a consistent approach among RPOs for negotiating research and IP commercialisation agreements with any potential sponsors or collaborators.
- Establish readily understandable procedures and effective incentives for all the vital contributors to IP creation and commercialisation, within RPOs and among business and industry research sponsors and collaborators. RPO processes for managing and exploiting IP should be
 - Open, reliable and useful for business and industry,
 - Highly attractive to research sponsors and collaborators,
 - Self perpetuating and self regulating, and
 - Efficient.

PURPOSE: These requirements and guidelines are intended to:

- Inform expectations of research sponsors, research collaborators, and business and industry seeking technologies,
- Increase business and industry access to RPO research results,
- Promote Irish RPOs as research partners of choice for business and industry,
- Raise the global profile of Irish research through notable advancement of knowledge, widely known international collaborations, and broad use of IP generated in Ireland, and
- Encourage RPOs to seek opportunities for partnerships and collaborative research with both Irish and international business and industry. These partnerships can contribute significantly to achieving key goals for Ireland, including:

<p style="text-align: center;">Grow the Economy</p> <p>Transfer Technologies to the Irish Economy</p> <p>Expand Irish Business and Industry</p> <p>Establish Strong Advantage in International Competitiveness</p> <p>Anchor Major Foreign Companies</p> <p>Attract Additional Inward Investment to Ireland</p>	<p style="text-align: center;">Enhance the Stature of Irish Research and Education</p> <p>Build Irish RPOs' Intellectual Foundations</p> <p>Expand Business and Industry Investment in Irish Research</p> <p>Strengthen Links for Business and Industry with the RPO Sector</p> <p>Offer Enhanced Education, Research and Job Opportunities for Students and Employees</p>
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C. FUNDING AGENCY DISCRETION:

Government departments and their funding agencies offer funding for distinct purposes. Where two agencies jointly fund an activity, there may be a combination of purposes. Funding goals

- Influence the desired outcomes of the project and the metrics for success, and
 - May influence the IP management guidelines and commercialisation strategies that should apply.
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D. RPO DISCRETION:

- PARTICIPATION: RPOs participate in all projects at their own discretion.
- RPO RESOURCE ALLOCATION: The institution's overall research capacity is a priority consideration in the allocation of its resources among individual research programmes and across different types of research.

SECTION II. GUIDELINES FOR SPONSORED AND COLLABORATIVE RESEARCH

A. FAIR RULES: RESEARCH AND COMMERCIALISATION AGREEMENTS

These guidelines define the fair rules for research and commercialisation agreements – typical agreement provisions and assurances to the parties. They apply whenever research is fully publicly funded, or when it is jointly funded by public and private sources such as business, industry, foundations or other non-government entities. The guidelines are also recommended as good practice standards for fully privately funded research programmes.

1. IP ACCESS AND OWNERSHIP:

a. RESEARCH PARTNERS: are

- 1) Research sponsors, or
- 2) Research collaborators who actively participate with an RPO in a research programme.

b. **ACCESS TO IP:** These rules guarantee research sponsors and collaborators access to research outcomes on reasonable and reliable terms.

c. **PATENT VALIDITY** depends on reliable research records and accurate identification of inventor(s).

d. OWNERSHIP OF IP:

- 1) **Ownership goes to the employer(s) of the inventor(s).**

Contract Research: For **contract research**, the sponsor is viewed as the employer of the researcher(s) because of the contract for research services. The sponsor therefore owns the IP generated within the scope of work set out in the project description.¹²

- 2) When two or more employers own the same invention, **joint ownership** can occur.

Joint Ownership must be well managed to ensure guaranteed IP access commitments are fulfilled; business, industry and RPO owners have equal opportunities to commercialise; and joint owners' commercialisation strategies are effectively coordinated.¹³

The parties may negotiate alternative ownership and access options within these guidelines.

¹² See Section II.C.1: Contract Research, p. 24.

¹³ See Section II.C.4: Managing Joint IP Ownership, p. 29.

2. RIGHTS OF RESEARCH PARTNERS

a. TO ALL RPOs, BUSINESS, INDUSTRY & OTHER RESEARCH PARTNERS –

Research

- Best practice by all participants in the conduct and recording of research.
- Appropriate confidentiality¹⁴ of research and results.

Discoveries

- Timely notice of discoveries to all parties.

b. TO BUSINESS & INDUSTRY –

Ownership & Publication

- Ownership of project IP developed by their employees.
- Retention of clear title to all background IP and to all proprietary know-how the company brings to the project.
- Reasonable notice of and right to review intended RPO publications, and to require removal of its confidential, proprietary or commercially sensitive information before publication.
- Obligation, after reasonable opportunity to review, to allow publication without confidential, proprietary or commercially sensitive information.

Access

- Access to all project IP.
- Perpetual right to use all project IP owned by other partners for internal, non-commercial purposes only.

NOTE: If a business or industry partner continues to develop a line of inquiry that uses RPO-owned IP, new discoveries can lead to new licensing of RPO IP as part of a new product. This creates an additional benefit to the RPO, other joint owners and the public.

¹⁴ *Confidentiality is essential to patentability of a discovery.* The discovery must be novel but may fail to be if its details are already disclosed in writing or orally, or it has been used in public where people could see how it works. Disclosure should be avoided until the discovery is protected as intellectual property. Discussion of discoveries with others, including colleagues or advisors should be covered by a signed confidentiality agreement. Source – European Commission Intellectual Property Good Practice Guide, 2003, ISBN 2-9599776-3-7, p.9.

Commercialisation

- First option to negotiate to exploit project IP from research it has sponsored or collaborated in.
- Option to negotiate to commercialise project IP owned solely by the RPO.
- Opportunity to negotiate access to background IP of RPO and other collaborators where it is required for exploitation of project IP.

c. To Research Performing Organisations –

Ownership, Publication & Graduate Training

- Ownership of project IP developed by RPO employees and students.
- Retention of clear title to all background IP the RPO brings to the project.
- Right to publish research results with the corresponding obligation to provide business and industry partner(s) reasonable opportunity to review proposed publications and to protect their confidential, proprietary, or commercially sensitive information.
- For graduate student researchers earning degrees, appropriate training, development and, as described above, publication rights.

Access

- Access to all project IP.
- Perpetual right to use all project IP for non-commercial research and, excluding proprietary, confidential or commercially sensitive sponsor or research partner information, for teaching.

NOTE: When the RPO can further pursue research developed in the project, it may make additional discoveries and be able to offer new IP to a business or industry partner(s) for commercialisation on negotiated terms.

Commercialisation

- Responsibility to ensure exploitation of viable project IP in which it has an ownership interest.
 - Option to negotiate license(s) to exploit viable project IP owned but not exploited by a business or industry research partner(s).
-

3. RESEARCH AND IP COMMERCIALISATION AGREEMENTS

- a. **ADVANCE AGREEMENT:** IP access, commercialisation rights of the parties, and commercial terms should be as fully as possible agreed in advance of RPO acceptance of private sponsor research support or collaboration.
- b. **PROMOTE PARTNERSHIP:** Advance agreement is important to reassure a business or industry partner that reasonable terms for access to RPO research results and project IP will still apply when discoveries are made.

B. IP MANAGEMENT REQUIREMENTS FOR RPOs:

These requirements are standard grant conditions of the participating funding agencies. The participating funding agencies will notify RPOs before making a grant if the funding purpose precludes full application of these requirements.

1. RPO RESPONSIBILITIES:

- a. Retains ownership of its inventions (This does not preclude joint ownership with other partners). An RPO must submit a written request to the appropriate funding agency or agencies in advance to negotiate or agree assignment of IP ownership to a third party, including to another RPO.
- b. Is required to timely report to the funding agency any and all project IP and the IP ownership designation, and must require inventors to timely report all project inventions to the RPO.
- c. Has a duty to ensure commercially viable discoveries in which it holds an ownership interest are protected and exploited.
- d. Must share with inventors any income it receives, including equity interest, from commercialisation of project IP.
- e. Must receive advance written approval from the funding agency to sell or assign or negotiate to sell or assign RPO ownership interest in inventions to any third party, including another RPO.
- f. Must have published policy that alerts all research project participants, including researchers, post-doctoral, graduate and other students, and employees to these IP management requirements.¹⁵

¹⁵ If there is any doubt that assignment of IP ownership to the RPO is an established condition of employment, the RPO must provide the research funding agency signed agreements to this ownership assignment from all individuals who participate in the research project.

2. RPO OWNERSHIP OF IP

- a. For IP created by RPO researchers, and integral to the researcher's work or to the RPO's research programmes, RPO ownership needs to be consistent and sustained:
- 1) Researchers' career needs and interests should be well protected by RPOs and by public funding agencies that invest in Irish research.
 - 2) IP contributes to the stature of Irish research and builds the intellectual foundations of Irish RPOs.
 - 3) Continual ownership is the only reliable guarantee that IP is freely available as background for further research, research funding, and discoveries.
 - 4) Certainty of title is essential to
 - The reliability and value of patents,
 - Ensure the validity of licenses to use RPO IP,
 - Ensure background IP is available for licensing to research partners to enable their use of project IP,
 - Allow licensing to a variety of users and for varied purposes, and
 - Ensure the RPO retains and increases its standing as a desirable research partner.
- b. As part of ownership, RPOs have the continuing responsibility to ensure inventions:
- 1) Are commercialised by business and industry, and reach the public,
 - 2) Are not held back for commercial advantage by any licensee,
 - 3) Do not fail to reach the public because of business failure of a licensee, and
 - 4) Contribute to the RPO knowledge foundation.

3. TRANSFER OF IP OWNERSHIP TO RESEARCH SPONSORS AND COLLABORATORS:

An RPO may negotiate to assign or transfer title to IP under the following conditions:

- a. The sponsor made a contribution to the research project that generated the IP or a funding agency made a contribution on the sponsor's behalf. The contribution substantially compensated costs of the project.

- b. The project IP is not integral to the Principle Investigator's future research or to the RPO's future research or IP rights;
- c. The proposal to transfer title has been approved by the Vice President (Vice Provost or Dean) for Research or by the Head of the RPO;
- d. The relevant funding agency or agencies
 - i. Receive prior written request from the RPO and reason for the proposed transfer,
 - ii. Have full opportunity to comment on the proposed transfer; and
 - iii. By signing off on the written request submitted by the RPO, confirm
 - a) The transfer would comply with applicable European Union regulations, and
 - b) The agreement is consistent with funding agency policy and rules of the programme under which the public funding contribution was granted.

C. IP OWNERSHIP AND COMMERCIALISATION FOR SPONSORED RESEARCH

1. CONTRACT RESEARCH

SPONSOR(S) DETERMINES PROJECT DEFINITION AND DIRECTION.

- a. **DEFINITION:** An agreement may be defined by the parties as contract research when a private sponsor(s) has engaged RPO researchers and appropriate laboratory facilities to carry out a defined assignment, has provided intellectual direction or has defined the extent of the scientific inquiry, or is requesting product development or testing.
- b. **CHARACTERISTICS:** Contract research covers a broad range of business and industry interactions with RPOs. Definition of an agreement as a contract research agreement is determined by the parties – the sponsor(s), the RPO(s), and the researcher(s). Contract research typically can be identified by at least *some* of the following characteristics:
 - The project is commissioned by the sponsor;
 - The project is critical to the sponsor's technology acquisition or development strategy;
 - The sponsor takes the lead in designing the project work plan, or sets deliverables or milestones for the project;
 - The project relies substantially on or would be difficult or impossible to carry out without privileged access to the sponsor's proprietary materials or background IP;

- The project focus is testing or analysis of the sponsor's proprietary materials or of research results based on the sponsor's materials or background IP;
 - The project can be ring-fenced from the Principal Investigator's future research, or ownership of the project IP is irrelevant to the RPO's future research or IP rights;
 - The sponsor is paying the full cost (direct and overhead expenses) or will make a majority contribution – financial, intellectual or both – to a project.¹⁶
- c. ***IP OWNERSHIP:*** The sponsor effectively employs the RPO researcher(s) through the contract and owns the results of the work, including project IP.

2. SPONSORED RPO RESEARCH

RPO RESEARCHER(S) DETERMINES PROJECT DEFINITION AND LEADERSHIP

- a. ***DEFINITION:*** One or more private sponsors fully or partially fund a new or an ongoing RPO research programme in exchange for access to research outcomes, including project IP. Few or none of the characteristics of contract research in Section II. B. are present in the arrangement with the sponsor.
- b. ***INVENTORSHIP:*** If intellectual direction of the scientific inquiry and realisation of discoveries are fully attributable to RPO researcher(s) managing and carrying out the project without active collaboration from the sponsor, the RPO researchers are the inventors of any IP developed in the project.
- c. ***IP OWNERSHIP – SPONSORED RESEARCH:*** IP ownership vests in the RPO as the employer of the inventor(s).
- d. ***LEVELS OF SPONSORSHIP:***
- 1) Full Funding: To qualify as fully funded by a private source, both direct and overhead RPO costs for the research project should be paid by the sponsor.
 - 2) Partially Funded Projects: Costs not paid by the sponsor should be considered publicly funded to the extent the RPO depends on the State for its funding.
- e. ***SPONSOR ACCESS TO PROJECT IP:*** Under Fair Rules, Section II. A, commercialisation rights should be negotiated between the RPO and the sponsor in advance of the research and on terms that recognise the sponsor's level of support to the research programme.¹⁷

¹⁶ Lambert Model Agreements Tool Kit, <https://www.innovation.gov.uk/lambertagreements>

¹⁷ See Section III.B.6: IP Licensing, p. 37.

- 1) Full Funding: Ordinarily, full funding of a project will earn a sponsor liberal access to IP, including royalty free non-exclusive use or exclusive use on terms that recognise the value of sponsor support.
 - 2) Less Than Full Funding: IP access rights for sponsors are typically responsive to the level of sponsor contribution. RPOs should strive to be consistent in these arrangements across research projects.
 - 3) Multiple Private Sponsors: Where there is more than one private sponsor, IP access rights may be apportioned according to each individual sponsor's level of contribution. Access rights should be apportioned in advance of starting research.
- f. **COMMERCIALISATION TERMS:** Commercialisation terms should also be negotiated as part of the research agreement in advance of accepting the sponsor's research funding.
- 1) Flexible, Responsive Licensing Terms
 - a) RPOs should recognise business and industry research sponsors' contributions with appropriate licensing terms, including non-exclusive royalty-free access to project IP.
 - b) A wide range of licensing arrangements is available to
 - (1) provide research sponsors conducive access terms,
 - (2) make RPO IP accessible to small and medium size enterprises (SMEs), and
 - (3) allow simultaneous multiple licensed uses of RPO IP.
 - 2) Rates of Return – Reasonable royalty or other income rates are difficult to establish in advance of discovery. To assure the parties of reasonable outcomes in negotiations, the research agreement should include one or more of the following:
 - a) A commitment from all parties to reasonable negotiation of terms fair to all,
 - b) A range for the potential rate of royalty or other returns,
 - c) Provision that if rates are not defined in advance, rates of return will be set at current market when the specific commercialisation terms are negotiated,
 - d) An agreed source authority to set market rates for the technology, or

- e) Other reasonable definitions and protections for the parties' rights in advance.

3. COLLABORATIVE RESEARCH

JOINT RPO RESEARCH WITH BUSINESS AND INDUSTRY – PROJECT DEFINITION AND DIRECTION JOINTLY DETERMINED BY THE PARTICIPATING PARTNERS

a. **DEFINITION:** Collaborative Research involves active participation of two or more researchers in a research programme.

b. **VALUE OF COLLABORATIVE RESEARCH**

1) **Major Research Programmes:** Irish research funding agencies support research programmes based on RPO partnerships with business and industry at grant levels and with private partner investments that offer significant opportunities.

2) **Long Term Collaborations:** Success in these collaborative programmes is significantly influenced by relationships among the partners. Good relationships can lead to:

- Long term funding,
- Project expansion and enhanced economic impact, and
- Recognition for Irish RPOs as well-known and preferred research partners to business and industry.

3) **Mutual Benefits:** These relationships should be

- Based on fair principles for all participants, and
- Formed through best business practices.

c. **IP OWNERSHIP - COLLABORATIVE RESEARCH**

1) **Inventor's Employer Owns Project IP:** Title to IP generated by collaborative research vests in the employer(s) of the inventor(s).

2) **Private Sponsor Ownership of IP:** Where researchers employed by the private sponsor(s) are sole inventors, the private sponsor(s) owns the IP.

3) **RPO Ownership of IP:** Where researchers employed by the RPO are sole inventors, the RPO owns the IP.

4) **Joint ownership:** Where there are multiple inventors employed by two or more partners, including two or more RPO partners, their employers jointly own the IP.¹⁸ [See Section II.B.4: Managing Joint IP Ownership] The parties may negotiate alternative ownership and access options within these guidelines.

d. **ACCESS TO PROJECT IP - COLLABORATIVE RESEARCH:** Fair Rules of Section II. A apply to negotiation of research and commercialisation agreements for RPO collaborative research with business and industry.

1) **To Business and Industry Research Partners: First option to negotiate to exploit project IP.** This option applies to project IP a business or industry partner funds or actively collaborates in creating.

Rationale:

- Business and industry research partners represent a strong commercialisation opportunity.
- Business and industry sponsors invest and participate in academic research based on a commercial interest in potential outcomes. They expect access to outcomes in proportion to their investment in the research project.
- Business and industry research partners are typically well informed about and have a predetermined interest in project content, purpose, outcomes and discoveries.
- Given their ability to invest in academic research and their interest in early stage discoveries, business and industry sponsors are highly likely

¹⁸ **Irish patent law, Section 53, JOINT OWNERSHIP:** Where a patent is granted to two or more persons (entities) jointly, they shall, unless otherwise specified in the patent, be treated for the purpose of the devolution of the legal interests therein as **joint tenants**, but **subject to any contract to the contrary**, each of such persons shall be **entitled to use the invention for his own profit without accounting** to the others, but shall **not be entitled to grant a licence without their consent...**

“Joint Tenants”: Under law, both own the patent in full rather than just a share of it.

“Entitled to use the invention for [its] own profit without accounting to the other(s)”: Both (all) joint owners are independently able to directly exploit the invention.

“Subject to any contract to the contrary, [owners are] not . . . entitled to grant a licence without [other joint owners] consent”: Industry can use inventions without the need to licence. RPOs need to licence to commercialise. The law allows an agreement between the parties [Joint Ownership Management Agreement] to override the consent requirement, i.e., to allow the RPO to licence without other owners’ consent and to allow agreement of terms between the parties for the industry partner to commercialise.

to have the resources, ability and market access to commercialise successfully.

- Additional means of exploiting project IP can be negotiated by the parties to allow for
 - Multiple avenues of exploiting the same IP, and
 - Making project IP outside a business or industry partner's proprietary interest available for others to exploit.

2) To RPOs: Opportunity to negotiate license to exploit project IP owned but not exploited by a business or industry partner(s).

Rationale: To stimulate economic and regional development, RPOs should strive to

- Secure the option to negotiate to exploit any commercially viable project IP in which a private sponsor has an ownership interest but does not intend to exploit;
- Identify commercialisation areas – geographic areas, market segments, application/ use, etc. – that business and industry partners may be willing to open to RPOs; and
- Encourage business and industry sponsor(s) to exploit discoveries within the Irish economy or, alternatively, to allow the RPO to exploit discoveries within the Irish economy in any circumstances that do not undermine commercial value to the sponsor.

4. MANAGING JOINT IP OWNERSHIP

a. IP MANAGEMENT AGREEMENT REQUIRED:

- 1) All joint owners own the IP and any patent rights in full, rather than a proportionate share of each.
- 2) Irish patent law provides that all owners are free to exploit the IP without reference to one another. This can lead to both confusion and conflict, put the ability of any one owner to license to a third party in jeopardy, and thereby devalue the IP.
- 3) Therefore, all jointly owned IP must be managed under a Joint Ownership Management Agreement.

b. Joint IP Management Provisions: All research agreements that contemplate joint ownership for joint inventions must include an IP management agreement that will apply to any occurrence of joint IP ownership and at a minimum includes the following provisions:

- 1) **Consultation and Collaboration:** The management agreement will require the joint owners to:
 - a) consult and inform each other regarding their plans and intentions for commercialising inventions,
 - b) arrange to maximise the benefits to each other, and
 - c) avoid competition among owners or contravention of each other's interests.
- 2) **Management Group:** The means of consultation will be through a group of IP owner representatives.
- 3) **Equal Rights to Licence:** The management agreement will allow equal commercialisation opportunities to the joint owners by permitting business and industry owners to exploit directly and RPOs to licence jointly owned IP.¹⁹ This provides all parties equal access to commercialisation.
- 4) **Shared Patent or Other IP Protection Expenses:** The management agreement should
 - a) provide for the allocation of patenting and patent maintenance expenses for jointly owned IP,
 - b) allow partners to elect not to contribute, and
 - c) specify any rights gained or forfeited by the choice of whether to participate in patent funding and maintenance.²⁰
- 5) **Patent Funds:** The funding agencies may consider providing resources to the RPO for IP protection, either in the terms of a grant or on request as a grant supplement.
 - a) The funding agencies will consider whether there is a bona fide RPO need for this funding.

¹⁹ Irish patent law anticipates potential imbalance among joint owners of IP and provides that a management agreement among the owners can override the law's limitation on freedom to license. This provision does not relieve the obligation for consultation described above. Freedom to license for the RPO permits it to access the only avenue it has for exploitation. Once both industry and RPO owners have independent ability to exploit, they have reason, even need, to collaborate in management and exploitation of jointly owned IP.

²⁰ RPOs require funding agency(ies) written permission to relinquish, assign or transfer IP ownership to any other party, including another RPO.

- b) If funding is requested as a grant supplement following a discovery, the funder(s) will consider whether the discovery merits the investment.
- c) Funding justifications might include: *Lack of resources for patent funding or maintenance that disadvantages an RPO* in:
 - negotiating a research or IP management agreement with a business or industry partner or
 - exercising options to ensure viable project IP is exploited.

6) Rights and Obligations of Joint Owners: The agreement should define

- a) Use, licensing, assignment, income sharing and other rights of all joint owners, and
- b) Obligations of all joint IP owners to provide advance and immediate notice to all other joint IP owners of any known events that have, will or may affect the ownership status, duration or value of any joint IP owners' interests.

D. INCENTIVES FOR KEY PARTICIPANTS IN RESEARCH PROGRAMMES

In Sponsored and Collaborative Research programmes, RPOs are required to, and all research partners should,

- Agree to provide appropriate incentives to encourage efforts needed from inventors (development, recognition, and reporting of discoveries) and from RPOs (developing policies, providing resources and pursuing commercialisation);
- Structure IP management and commercialisation arrangements that give appropriate value to investments of time and resources the sponsor must make to exploit a technology;
- Recognise sponsor contributions with appropriate access to discoveries on attractive terms to promote partnerships; and
- Maintain self-regulating, efficient and consistent IP management and commercialisation processes;²¹

²¹ See Appendix A.

SECTION III: NEGOTIATING RESEARCH AND IP MANAGEMENT AGREEMENTS

RPO RESPONSIBILITY

A. RESEARCH AGREEMENT PROVISIONS

1. FAIR RULES

Research and IP management agreements should incorporate the Fair Rules set out in Section II.

2. ADDITIONAL IP MANAGEMENT AGREEMENT PROVISIONS should

- a. Emphasise the responsibilities of the parties to exploit viable discoveries.
 - b. Encourage exploitation in Ireland or the European Union.
 - c. Secure for the RPO the option to negotiate to exploit project IP owned by a business or industry partner when that partner has no commercialisation intent.
 - d. Establish appropriate arbitration procedures for resolving disputes among the parties.
 - e. Establish governing law for the agreement as Irish law.
-

B. RESEARCH AGREEMENT NEGOTIATION GUIDELINES

1. FAIR RULES – ACCOMMODATING THE PARTIES' INTERESTS

- Differing priorities can become a disproportionately challenging part of negotiating important research agreements, IP access, and commercialisation rights among the parties.
 - Fair Rules in Section II are developed to accommodate the priority interests among the participants and to serve the funding agency interests described in the Purpose section of these guidelines.
-

2. GOALS

- a. The participating funding agencies share the goals of
 - Promoting productive interactions between Irish RPOs and indigenous and international business and industry, and
 - Making Ireland a highly desirable environment for international research partners.
 - b. To serve these objectives, the participating funding agencies have developed the guidelines in Section II for IP management, access and commercialisation to be included in the terms of agreements negotiated by RPOs with research sponsors and collaborators.
 - c. Funding agencies may require research and IP management and commercialisation agreements as a prior condition to a grant.
-

3. CHALLENGES

- a. **Collaborative Tone in Negotiations:** As the first phase of the relationship, negotiation can influence all aspects of the partnership for its duration, including commercialisation of IP. The tone of RPO negotiations should reflect the Fair Rules concepts outlined in Section II.
- b. **Timely agreement:** For the benefit of all research partners, agreements should be completed as efficiently and timely as possible, usually within 90 days of initial mutual consent to collaboration or research sponsorship.

c. **Cultural Differences** between academic and business parties can interfere with agreement unless the parties come to negotiations with constructive understanding of each other's needs and objectives:

1) Research Partners

- The correspondence in their roles makes RPOs effective partners with business and industry. Commercialisation agreements are forged based on their complementary and shared objectives.

2) Private Sponsors and Collaborators

- Most private sponsors and collaborators invest in RPO research based on commercial interests, for efficient research costs and for high value innovation.
- Private sponsors value an RPO's capacity and quality as a research performer and are attracted by the experience and the intellectual foundation the RPO brings to a research programme.
- Business and industry directly commercialise discoveries through product development, marketing and sales to the public. They seek the best terms possible for accessing and exploiting RPO-owned or jointly owned discoveries.
- Business and industry partners typically receive early stage technology from the RPO research laboratory. Subsequent product development and translation to market represent a substantial investment and assumption of business investment risk.
- Needs and priorities of business and industry partners differ by sector, may lead to differing IP commercialisation terms, and should be recognised in negotiating research and commercialisation agreements.

3) RPOs and Academic Researchers

- RPOs are interested in developing research programmes and institutional knowledge, recovering research costs to the institution, and serving Ireland's social and economic interests.
- Academic researchers consider funding for research and developing and publishing new knowledge as primary objectives.

4) RPO Commercialisation Role

- RPOs do not independently commercialise discoveries. Instead they rely on third parties - business and industry partners to commercialise, i.e., take inventions to market.

- After an RPO licenses an invention, commercialisation strategy and efforts are shaped at the discretion of the licensee.
 - The RPO usually assumes a portfolio management (passive observer) role. It usually has no active involvement in the commercialisation process other than to observe whether its technology is being exploited within the terms of the license.
 - Exception: The RPO commercialisation office provides assistance to a new company formed and based on technology licensed from the RPO. For example, the RPO may help the new company secure investment funds, business planning assistance, a start-up management team, or campus-managed incubator space. Nonetheless, the new company, not the RPO, is the decision-maker and manager for commercialisation.
 - RPO commercialisation professionals should seek expert advice as needed in any aspects of the commercialisation process, including negotiating agreements.
-

4. ADVANCE NEGOTIATION:

- a. **Scope: *IP Access and Commercialisation Rights*** should be included in any sponsored research agreement and should be negotiated before research begins.
- b. **Advantage:**

Negotiating the agreement, including rights of the parties, commercialisation terms, and IP management process, in advance of the project offers several advantages. It:

- 1) Reduces uncertainties,
 - 2) Anticipates and accommodates potential outcomes,
 - 3) Promotes positive and trustful relationships among the partners,
 - 4) Focuses negotiation on principles and rights rather than on value speculation for specific technologies,
 - 5) Increases the likelihood of fairness in the agreement and cooperative IP exploitation during the partnership, and
 - 6) Protects the parties' rights.
-

5. RPO NEGOTIATION STRATEGY:

This section applies to RPO interactions with research supporters and collaborators and with all other third parties interested in commercialising RPO-owned IP.

- a. *Consistency*: For RPOs, credibility with all potential business and industry sponsors and collaborators is strengthened by demonstrating that the RPO is consistent in the consideration it offers and in the accommodations it seeks in sponsored research agreements and in IP commercialisation agreements.
- b. *Published Policy*: To demonstrate consistency, RPOs should publish the provisions they ordinarily seek in these agreements, so that potential sponsors, collaborators and all other interested in RPO IP are aware of them before discussions about research sponsorship and about IP access begin.
- c. *Contract Templates*: For RPOs, publishing favourable standard terms and concise contract templates, and placing the first offer in negotiations can promote understanding among potential business and industry partners, help to open doors to RPO research for business and industry, and help RPOs as a group compete effectively for business and industry investment in Irish research.

6. IP LICENSING:

This section applies to all commercialisation agreements involving licensing of RPO IP.

a. *Licensing Patent Rights*:

- 1) A *licence* is a legally binding contract by which the owner of a technology or holder of a patent or copyright grants to another party any or all of the rights to use the IP. Use of the IP would not be legal without the licence.
- 2) *License terms* may provide for one or more of the following conditions for use:²²
 - *Exclusive – To one licensee, unlimited in time, location or manner of use;*
 - Exclusive as to all others for a group of licensees, e.g., research partners or sponsors
 - Exclusive within one or more parameters, e.g., for a particular use, geographic area, length of time less than the life of the patent, or for any combination of these

²² The degree of exclusivity of a license usually affects the cost to the user. Businesses based on one technology, particularly start-ups, may prefer a fully exclusive license while others may be well served by a partially exclusive or non-exclusive license, which will likely be more affordable and more readily accessible.

- Exclusive within one or more parameters (as above) and non-exclusive outside those parameters
 - Exclusive and sub-licensable
 - Exclusive but not sub-licensable
 - Non-Exclusive
 - Non-Exclusive but limited in availability to a defined group of users, e.g., research partners or sponsors
 - Non-Exclusive with any combination of the above parameters
 - Non-Exclusive after the lapse of an Exclusive license
- 3) Licenses may be agreed on any combination of compensation terms, not limited to the following examples:**
- Royalty free, either for a set time or without limit
 - Royalties
 - Royalties for the life of the license
 - Royalties capped at a level of accumulation
 - Royalties time limited
 - Royalties beginning X years after commercialisation or after the product reaches the market
 - Royalties on payments to the licensee from sub-licensees
 - Up front, milestone or one time payments
 - Equity share
 - Patent or other expense reimbursement
 - Event contingent versions of any of these terms
 - Further research funding

b. Value to RPOs of Licensing IP Rights

- 1) Balancing Needs of RPOs and Research Sponsors & Collaborators:** Licensing Project IP is an effective way to serve multiple commercial needs of business and industry research sponsors and collaborators and to support continuing research in RPOs.
- a.** The broad range of licensing alternatives available has been developed over time in the commercialisation market to accommodate the evolving business needs of research sponsors and collaborators.
 - b.** Funding agencies hold RPOs responsible to ensure commercially useful technologies are exploited, reach the public and contribute to the economy. When an RPO licenses IP, it can require as a contract condition that the licensee make all reasonable efforts to commercialise the technology.

c. When an RPO sells or assigns IP:

- i. Its ability to assure full appropriate exploitation of the IP is eliminated;
- ii. Its ability to continue using the IP in research and education is not assured; and
- iii. The IP is no longer a part of the RPO's intellectual foundation.

2) *Commercialisation Alternatives:* RPOs are encouraged to be knowledgeable of and open to alternative means of exploiting innovations - for example, trade secret, special know-how, or free ware. These may be more appropriate to some areas of research than to others and may or not involve patenting.

C. RPO RESPONSIBILITIES

1. RESOURCE COMMITMENT

Through the research agreement, the RPO agrees to make its resources – researchers, facilities, equipment and associated infrastructure – available to perform the research agreement. In forming a research agreement, the RPO must

- a. Determine whether the proposed use of its resources is appropriate,
- b. Evaluate whether it is adequately compensated by a proposed contract,
- c. Approve contract terms, and
- d. Apportion resources to be used.

2. RPO INTELLECTUAL FOUNDATIONS

a. ***Perpetual RPO Access to Intellectual Property:*** In sponsored and collaborative, the research agreement should provide the RPO perpetual access to project and background IP owned by a sponsor or another collaborator for the purposes of non-commercial research and, excluding proprietary, confidential or commercially sensitive information, for education. This access

- 1) Enables further research²³ and potential discoveries that can advantage both sponsors and collaborators, and

²³ European Commission Expert Group Report, *Management of Intellectual Property in Publicly-Funded Research Organisations: Towards European Guidelines:*

“In the UK the research exemption [for use of collaborative research project IP] applies to acts “done for experimental purposes relating to the subject matter of the invention, it being irrelevant whether the act is done for commercial purposes or not. One view therefore is that in the UK the use of the patented research tools will require a licence while research into the tools themselves will fall under the exemption. . . . However there is a European school of thought that clearly supports the notion that if the use of the tools is for non-profit-making purposes, then the exemption should apply

2) Increases the RPO's knowledge base for both teaching and research.

b. *Exploitation Priorities for RPO Generated Discoveries:* Through research agreement provisions, RPOs should strive to:

1) Secure options to exploit any IP developed in the programme, owned by the private sponsor or collaborator, and for which the private sponsor or collaborator does not have commercialisation intent;

2) Encourage sponsors and collaboration partners to exploit discoveries for maximum benefit to the Irish economy, or to allow the RPO to exploit discoveries under mutually acceptable circumstances.

D. UNITY BETWEEN FUNDING AGENCIES AND RPOs

1. FUNDING AGENCY(IES) RECRUITS SPONSOR OR RESEARCH PARTNER

When a funding agency participates in or leads recruiting for a potential business or industry research sponsor or collaborator, the agency(ies) and RPO(s) should

- a. Be unified in their interactions with the potential partner(s),
- b. Coordinate their representations to manage the partner's expectations and to ensure they can fulfil any commitments offered by an agency or the RPO,
- c. Coordinate with each other as the research agreement is formed, negotiated and completed, and
- d. Jointly develop the IP access and commercialisation terms to be offered.

2. SCOPE

These guidelines should be applied whether the sponsor is an Irish indigenous or a multinational business.

[emphasis added]. The pragmatic position for [RPOs] to take is to be aware of the existence of third party patents and find out what approach the owner is taking." Page 21.

Grubb, Phillip. Novartis International AG, *How Real are Patent Thickets:*

"It is sometimes said that research, particularly academic, cannot constitute patent infringement because of the so-called research exemption. This is not correct. . . . In Europe, it is generally not infringement to experiment with an invention with the object of studying how it works, or improving on it. But when a patented invention is used for its normal purpose (to produce products for sale) without consent, then that use is infringement even within the laboratory."

APPENDIX A. PUBLICLY FUNDED RESEARCH: Intellectual Property Management REQUIREMENTS

A. PURPOSE

§ The requirements presented here place an obligation on publicly funded grant recipients for consistent best practice in recognising, protecting, and making research discoveries accessible for commercial and other public use.²⁴

Intellectual property (IP) generated by fully or partially State-funded research represents an opportunity to return social and economic value to research sponsors and collaborators, the Irish taxpayer and to business and industry through commercialising research-generated technologies.

B. SCOPE

THESE REQUIREMENTS APPLY TO MANAGEMENT OF INTELLECTUAL PROPERTY GENERATED BY FULLY OR PARTIALLY PUBLICLY FUNDED RESEARCH.

- **FULLY PUBLICLY FUNDED RESEARCH:** These requirements apply in full.
- **PARTIALLY PUBLICLY FUNDED RESEARCH:** These requirements should be balanced with the consideration due non-public sponsors for the research project in keeping with the Fair Rules described in the main body of these guidelines.
- **FUNDING AGENCY DISCRETION:**
 - Individual agencies may apply additional criteria. Websites and grant announcements should be consulted.
 - Funding agencies will notify Research Performing Organisations before offering a grant whether the funding purpose precludes full application of these requirements.
- **CONTRACT RESEARCH:** These requirements do not apply to contract research. See Section II. A.

C. PUBLISHED POLICY REQUIREMENT: RPOs and other eligible grantee organisations are required to have published policy that alerts all researchers, including postdoctoral, graduate and other students, and employees to their responsibilities under these intellectual property management requirements.

²⁴ Agency grant announcements will specify when any parts of these requirements do not apply.

D. TERMS AND CONDITIONS:

1. INTELLECTUAL PROPERTY OWNERSHIP

- ***Title to IP generated by fully or partially publicly funded research is granted to the employer(s) of the inventor(s).*²⁵**
- ***RPOs are required to have published policy that alerts all research project participants, including researchers, post-doctoral, graduate and other students, and employees, to these ownership requirements.***
- ***RPOs are responsible to ensure all RPO staff and student participants in a research project, provide signed agreements assigning project intellectual property to the RPO.***
- ***Funding agency advance written permission must be requested to negotiate to transfer ownership interest as provided in section 4 below in these requirements.***

RATIONALE:

§ **ECONOMIC VALUE:** Public interest in a vibrant economy and in enhanced quality of life requires reasonable and responsible efforts to promote the development and use of inventions arising from publicly funded RPO research.

§ **EFFICIENT, SELF-REGULATING OVERSIGHT:** These IP management terms are part of the contractual relationship created by a grant from the funding agency to the RPO (or other non-profit grantee). Vesting ownership in the RPO of IP generated by fully or partially publicly funded research accomplishes the following:

- Places responsibility for IP management and exploitation on the RPO when it has an ownership interest in the IP.
- Delegates oversight of IP protection and commercialisation to RPOs. Rather than directly overseeing discoveries generated by each individual grant, the funding agency is able to hold RPOs accountable for appropriate IP management
- Holds RPOs responsible for the conduct of their principal investigators and other research project participants.
- Responsibility for appropriate IP management and exploitation is fixed in an institution, rather than an individual inventor. Grantee institutions should have the required resources and experience
 - to manage and track the appropriate commercialisation of IP and
 - to transfer new technologies efficiently and quickly to public use.
- RPOs have a strong incentive to uphold their IP management responsibility in order to maintain their eligibility for public research funding and are encouraged to use standard best practice in commercialising IP.

²⁵ For ownership terms for sponsored, collaborative and contract research, see Section II.

- RPOs are responsible to ensure third parties awarded licenses or other rights to RPO IP comply with the funding agency's IP management standards.

§ **BUILDING RPO INTELLECTUAL FOUNDATIONS:** Vesting IP ownership in the RPO:

- Contributes to RPO research capabilities; and
- Encourages RPO research collaborations with business and industry because
 - the RPO is able to bring strong capabilities and residual knowledge to research partnerships,
 - inventors are motivated to see their inventions used, and
 - business and industry are interested in using new discoveries.

§ **CERTAINTY OF TITLE FOR INVENTIONS** is an important incentive for commercialisation. RPOs need to demonstrate to business and industry, investors, and to research sponsors and collaborators, that they have appropriately protected discoveries, have clear title, are fully able to provide valid licenses for IP use, and can provide background IP for research.

§ **CERTAINTY OF TITLE** also ensures the RPO can receive additional funding to do further research in the same area and can benefit from further discoveries.

2. DUTY TO REPORT DISCOVERIES

RPOs and other eligible grantee organisations must

- **Require inventors submit timely reports of discoveries to the RPO commercialisation office and to any collaborating research partners within 30 days of recognizing a useful discovery.²⁶**
- **Report discoveries to the funding agency within 60 days after the inventor files a discovery notice with the commercialisation office, and report to any other research sponsors in accordance with terms of the research sponsorship agreement.**
- **Hold inventors responsible for protecting the confidentiality of discoveries and refraining from publication by any means**
 - **until the inventor and RPO agree on an initial commercialisation strategy,**
 - **until the RPO or other research partners have adequate opportunity to seek patent protection, or**
 - **until a private sponsor(s) has adequate opportunity to ensure its proprietary, commercially sensitive, or confidential information is removed prior to publication.**
- **In recognition of the researcher's right to publish, this period when the inventor is required to maintain confidentiality should be as brief as possible and, unless the inventor agrees otherwise, should be no longer than 90 days.**

RATIONALE:

§ **TIMELY REPORTS:** The duty to report discoveries to the funding agency places a positive responsibility on RPOs to act timely. The RPO in turn must require inventors to act timely by reporting discoveries to the RPO commercialisation office as well as to collaborating researchers.

§ **COMMERCIALISATION PLAN:** The requirement that the RPO report the discovery to the funding agency within 60 days of receiving the invention report reinforces the RPO's responsibility to act timely and effectively to establish a plan for protecting, developing and exploiting new IP.

²⁶ Discovery refers to the point in time when an inventor or inventors recognise that a technology has been created by a new and inventive step and has potential social or economic use.

§ **INFORMATION TO RESEARCHERS:** Fulfilling the reporting responsibility depends on researcher awareness. RPOs must inform researchers of their responsibility to report discoveries, must develop and publicise a process for reporting discoveries, and must identify an official or office responsible to receive discovery reports.

§ **SELF REGULATING, COST EFFECTIVE PROCESS:** Incorporating time requirements into these fundamental IP management provisions makes the process self-regulating. To the extent the process is self-regulating, it avoids spending additional public resources.

§ **BALANCE BETWEEN CONFIDENTIALITY AND THE RIGHT TO PUBLISH:** The 90 days or less confidentiality period following the report of discovery to the RPO serves two purposes.

First, it establishes a positive responsibility on the part of inventors for care and diligence in protecting both the confidentiality of discoveries and the potential return on research sponsors' investments.²⁷

Second, the 90-day maximum term for confidentiality, absent another agreement, respects the inventor's right to publish research results and report broadly on the generation of new knowledge. Publication enhances the stature of Ireland's research enterprise and benefits the scientific pursuit of knowledge.²⁸

The inventor(s) may agree to maintain confidentiality for a longer term, but cannot be compelled to do so. The 90 day term is intended to provide adequate time to secure interim patent protection.

²⁷ Publication of unprotected discoveries occurs whenever the information is made available to any third party by any form of presentation, in writing, in conversation or through samples sufficient to convey an understanding of the structure or workings of the discovery.

²⁸ Patents are a form of publication and make inventions known to the public.

3. DUTY TO EXPLOIT PATENTABLE DISCOVERIES

Exploiting Discoveries for Social and Economic Benefit to Ireland: In forming commercialisation strategy, RPOs should consider how commercially viable discoveries can be exploited to the maximum benefit of the Irish economy and the European Union.

Time Limit for Commercialisation: The RPO must ensure commercially viable discoveries in which it has an ownership interest are timely exploited in a manner appropriate for the technology. ²⁹

Licensed Discoveries: When the RPO licenses IP, the license agreement must provide that

1) The licensee will exploit the IP with due diligence, and

2) If the licensee fails to exploit in a timely way, i.e., appropriately for the technology or within two years, the RPO will terminate the license and the IP commercial rights will revert to the RPO.

Failure to Exploit: If the RPO fails to exploit commercially viable IP, ownership control will revert to the research funding agency. The standards in 1) and 2) above will be applied in making this judgment.

RATIONALE:

§ EXPLOITING DISCOVERIES FOR SOCIAL AND ECONOMIC BENEFIT TO IRELAND

For inventions in which an RPO has an ownership interest, first consideration is encouraged for exploitation that provides maximum benefit to the Irish economy and to the European Union economic area.

This provision does not compel a course of action and is not intended to overlook the benefits that may accrue to Ireland and Irish research from both indigenous and international use of its innovations.

§ MULTIPLE SIMULTANEOUS USES

A discovery may have multiple applications that can only be fully exploited through a variety of means, including non-exclusive, partially exclusive, and exclusive licensing by existing companies, new businesses, or both.

§ TIME PERIOD

This provision establishes a standard of timeliness in commercialising a viable discovery.

²⁹ Commercial exploitation of some discoveries may require significant development for substantially more than two years. Appropriate product development and other activities required for commercialisation are sufficient indicators that the licensee is duly pursuing exploitation.

Patent protection must precede disclosure in most countries so that timely protection is required to preserve the value of the IP.

The standard of “appropriate protection” requires the RPO or its licensee to determine how best to protect the discovery – through patenting, through copyright, or through confidentiality as a trade secret or special know-how.

NOTE: Valuable discoveries generated by research may have no immediate usefulness outside the research laboratory, but may have long term potential value, and should be protected appropriately to preserve that long term value and to allow inventors to publish their research results.

§ LICENSED DISCOVERIES

Appropriate development and exploitation should be reasonably initiated and in progress within two years. This requires that the licensee duly pursue exploitation in ways reasonable for the discovery. It does NOT require completion of development within two years.

The standard of “timely exploited” and the two-year period for due diligence in exploitation intend to protect against licensing of a discovery for the purpose of preventing its use.

§ FAILURE TO EXPLOIT

The RPO is responsible to ensure that discoveries in which it has an ownership interest are exploited and should incorporate due diligence for exploitation clauses in licensing agreements.

Where a licensee fails to exploit a discovery in a reasonable time due to business failure or other reason, the public interest in the value of the IP is served by the RPO’s cancelling the license for use and seeking other commercialisation means.

Where the RPO does not fulfil its commercialisation responsibility, the public interest in the value of the IP is served by the funding agency’s recalling the ownership interest it awarded the RPO. The agency will then consider how best to support exploitation through a new award of title.

4. FUNDING AGENCY APPROVAL REQUIRED TO SELL OR TRANSFER OWNERSHIP INTEREST IN IP

Where the RPO has an ownership interest in IP generated from a partially or fully publicly funded research programme, the RPO may not transfer or assign its ownership interest without written agreement of the funding agency.

RATIONALE:

§ The purpose of this provision is to protect the public interest by placing responsibility on the RPO for full exploitation of viable discoveries. While the RPO retains title to the IP, it

- continues to be accountable to the funding agency to monitor the development of the IP in the hands of a licensee, and
- cannot end this obligation without the sponsoring agency's permission.

§ PRESERVE IP: Under section 3 above, the RPO should ensure a license for the IP can be cancelled and the IP retrieved in the event a licensee fails to commercialise it or experiences a business failure. The RPO is then able to seek other opportunities to commercialise the IP.

§ CONTINUING OWNERSHIP INTEREST by the RPO

- Protects researchers' rights to continue using the IP in research and to build on a specific line of inquiry,
- Ensures the RPO has the right to accept new funding for work in the same line of inquiry, and
- Ensures the RPO is able to benefit from new discoveries based on the IP.

§ **BENEFITS TO LICENSEES:** The RPO's long-term interest in an invention may translate into significant benefit to its licensees in at least two ways.

- First, for its own benefit, the RPO should be willing to defend against patent infringement, to be known as a strong defender of its IP. A start up company on its own probably would not be able to afford to defend its IP. Alternatively, the funding agency may wish to defend against infringement to identify Ireland as a strong defender of IP generated by publicly funded research.
- Second, identification of a company's IP with an RPO source is likely to contribute value in the eyes of investors.³⁰

³⁰ Success ratios for U.S. companies based on RPO research generated technologies is better than 65% while success ratios for new businesses trend at approximately 20%.

5. RPO POLICY: SHARING COMMERCIALISATION INCOME³¹ WITH INVENTORS

The RPO must share both royalty and equity income from IP commercialisation with inventors, and must have published policy that informs faculty, researchers, post-doctoral, graduate and other students, employees and the public of its provisions for distributing commercialisation income.

RATIONALE:

§ The commercialisation process is a by-product of research and runs on incentives. Incentives to participate in commercialising discoveries need to be an integral part of the system for RPO researchers, their departments or schools, and the RPO itself.

Incentives: Researchers, their departments or laboratories, and the RPOs should be provided a share in the income realised from the exploitation of their inventions.

Public service: In addition, funding agency and RPO published policy should make researchers aware of the public service they perform when they participate in exploiting their inventions.

³¹ See Glossary of Terms, p. 53.

6. CONFLICTS OF INTEREST

The RPO must provide a statement of assurance to the research funding agency that

- **Financial interests of all participants in the research programme have been declared and assessed,**
- **Any active or apparent conflicts of interest have been managed to ensure the integrity of the research, and**
- **All IP management and commercialisation transactions among and by the parties will be open, transparent and objective.**

The purpose of this provision is to

- **Elicit full disclosure of financial interests by all participants and relevant parties to the research programme,**
- **Manage and resolve all such interests that might influence, or appear to influence, research conduct or research outcomes,**
- **Contain undue influence on research outcomes or commercialisation transactions, especially where one or more participating researchers have a beneficial interest in a company or other entity able and interested in exploiting IP generated by the research.**

RATIONALE:

§ DEMONSTRABLE OBJECTIVITY in research is essential for public trust.

- For valid results, research must be conducted free of financial, political, or other influence from outside the pursuit of new knowledge. Conflicts of interest occur when the personal, professional or political interests of anyone involved in a research programme may be served or appear to be served by a particular research outcome.
- The appearance of influence from external financial or other special interests on research outcomes will diminish the value of resulting IP to potential licensees and in the market place.

§ RPO RESPONSIBILITY:

- This provision places responsibility on RPOs for ensuring full disclosure of interests by its researchers and staff, and for reviewing and managing both conflicts of interest and appearance of conflicts as a condition of receiving a grant of public funds.
- The RPO's employment relationship with researchers and its position as grant recipient make the RPO the most able entity to assume responsibility for ensuring the objectivity of research.

- Placing this responsibility with RPOs is a reasonable and effective delegation of responsibility from funding agencies, whose resources could otherwise be significantly diverted to oversight of individual researchers and research teams in all grantee institutions.
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APPENDIX B. GLOSSARY OF TERMS

Commercialisation Income

Commercialisation income is income earned in the form of *royalties, equity, lump sum or milestone payments, or other means of payments* earned from exploitation of research-generated discoveries, inventions, or project IP.

Commercially Viable Intellectual Property (Discovery or Invention)

Intellectual property is commercially appropriate to exploit when its application would have market value, for example, through creating a new product or process, or enhancing an existing product or process attractive to an identifiable customer group; and when making the product or applying the process is physically and financially feasible. For RPOs, potential immediate or long term value of the invention is weighed against the investment required to realise value from it to determine whether exploitation is appropriate.

Non-Commercial Use

For these guidelines, non-commercial use of IP refers to use by a research sponsor or collaborator and is restricted to internal research or education purposes. When any user discovers any form of new commercial potential for IP, any further research or development is considered to have commercial intent and right to proceed must be licensed from the owner.

Intellectual Capital

Intellectual capital is an RPO's foundation of knowledge and includes the reservoir of intellectual property, know-how and other new knowledge an RPO generates and maintains. Intellectual capital serves as an essential asset in attracting research support and research collaborators from academia, business and industry. The breadth and depth of an RPO's foundation of knowledge is directly related to its stature as a university (or other knowledge-based institution) and as a research partner.

Intellectual Property

Intellectual property is new knowledge or creative work in which a right of ownership can be established under provisions of patent, copyright, or trademark law, or in which value can be sustained and ownership asserted through maintaining the knowledge as a trade secret. Forms of intellectual property include patent, copyright, trademark, trade secret, trade dress, database rights, design and design rights.

Project Intellectual Property (Project IP)

Project IP is intellectual property generated within a research programme.

Background Intellectual Property (Background IP)

Any intellectual property controlled or owned by a party to a research project prior to the beginning of the project or generated independently of the project by that party, and which is brought into or used as part of the project.

Inventor

Whoever makes, creates, or discovers any new and useful process, information management machine, or composition of matter, or any new and useful improvement thereof invents. Researchers become inventors when they actively participate in or contribute to the "inventive step" in development of a discovery that becomes a patentable invention.

Patentable Invention

The European Patent Convention provides:

Patentable inventions: European patents shall be granted for any inventions which are susceptible of (i) industrial application or use, which are (II) new or novel and which involve (iii) an inventive step. *Article 52*

(i) Industrial application: An invention shall be considered as susceptible of industrial application if it can be made or used in any kind of business or industry, including agriculture. *Article 57*

(ii) Novelty: (1) An invention shall be considered to be new if it does not form part of the state of the art. (2) The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application. *Article 54*

(iii) Inventive step: An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is non-obvious to a person skilled in the art. *Article 56*

Joint Invention

Occurs when two or more inventors participate in creation or discovery of an innovation.

Proprietary Information

Proprietary information is any non-public or undisclosed know-how, trade secret, or other information generated by or belonging to a party and safeguarded by the party as confidential, based on its commercial value to that party.

Research

Active, diligent and systematic quest for knowledge, data, or truth; a process of inquiry, investigation, or close, careful study in order to discover, interpret or revise facts.³²

Researcher

The term *researcher* includes all participants in the research programme who qualify as investigators, including faculty, graduate and other students, post-doctorates, other research assistants, and business or industry employees who participate directly in investigative research.

Sponsored Research

A research performing organisation is granted funds by an external sponsor for a research programme in an amount intended to reimburse the RPO fully or in part for the costs incurred by the research (direct costs), and may also include reimbursement for overhead expenses associated with the research (indirect costs).

Contract Research

Contract research is sponsored research for which intellectual direction and extent of the scientific inquiry are defined and directed by the sponsor(s). Typically, the sponsor engages the researcher and appropriate laboratory facilities to carry out an assignment defined by the sponsor. Nonetheless, the research draws on the expertise of RPO researchers.

Publicly Sponsored Research

Research is publicly funded to the extent that public funds are the source of sponsorship for the research programme.

Public Funds include

- Resources provided by a Government Department or its agencies, and
- The resources of an RPO that receives a significant share of its total funding from public sources.

Privately Sponsored Research

Private resources (business, industry, foundation, or other non-government entity) are the sole source of external (outside the RPO) sponsorship for the research programme.

Full funding or full economic cost (FEC) sponsorship from a private source covers all direct and indirect (overhead) costs for the research programme.

³²www.c-f-c.com/supportdocs/dot_define.htm; en.wikipedia.org/wiki/Research

Indirect Cost Payment by a Private Sponsor: In the interest of equity among public and private sponsors, a project qualifies as fully funded by a private source when direct costs are covered and indirect costs attributable to the project are charged to the private sponsor at no less than the indirect cost rate agreed between the RPO and the relevant public funding agency for the same type of research.

Jointly Sponsored Research

Jointly sponsored research refers to a research programme funded by two or more sponsors. Sponsors may include both public and private entities - business, industry, foundations or other non-government organisations.

Collaborative Research

Collaborative research is research carried out by any two or more individuals. For these guidelines, collaborative research is active participation in a sponsored research programme by researchers employed by two or more separate entities – two or more RPOs or RPOS and private entities.