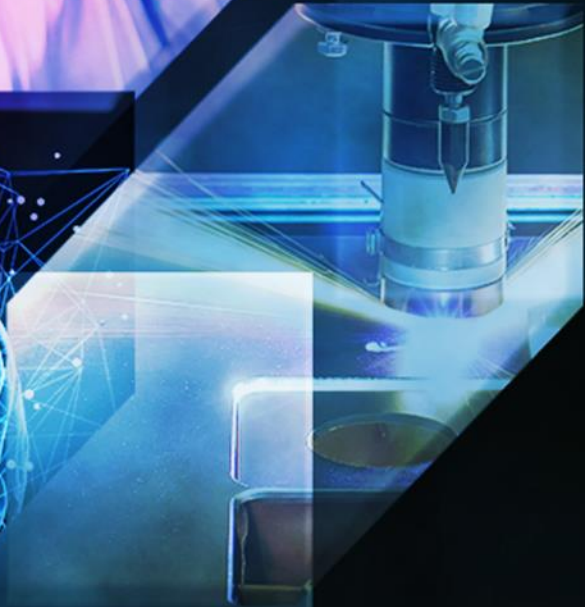


# Vademecum

How can companies cooperate with research institutes?



**LUXINNOVATION**

#MakingInnovationHappen

# Introduction: managing expectations

**Key Message 1:** The research organisation's rationale is to generate, develop, exploit and diffuse knowledge and technological assets; the company's rationale is to develop business.

**Cooperating with a research organisation is not difficult, but it does require mutual understanding and attention to detail.**

**There are obvious advantages in cooperating with research organisations:**

- access to available knowledge / technologies;
- access to skilled people and creative minds;
- access to infrastructure, laboratories;
- access to methods and methodology, access to materials;
- external perspective, new source of ideas;
- dedicated structures organised to deliver research output, etc.

**Companies will get the most out of it, if objectives are aligned. The intention of this vademecum is to suggest good practices to reach such alignment.**

# 1. Does the company have identified needs?

Not necessarily an easy question and not a pre-requisite when entering into discussions with a research organisation

→ exploring is possible and is the role of Technology Transfer Officers to help companies understanding what they can get from a research organisation.

In case the company has a defined need, it should be clear from the outset. The following questions should then be answered: what is needed? When? Is it feasible? The answers to those questions will define the relevant contact point and the arrangements that shall be investigated.

**Key Message:** having defined needs helps converging towards a project but is not a requirement when approaching a research organisation.

# 2. How to identify the relevant access point

- The role of Technology Transfer Officers or partnership officers (TTOs) is to manage interactions between research organisation and companies. TTOs are the most suitable entry point.
- Research and innovation agencies:
  - Luxinnovation's core purpose is to foster innovation in companies based in Luxembourg or interested in locating in Luxembourg. Luxinnovation provides free services covering the identification of relevant expertise;
  - FNR as a funding agency of research organisations has an in-depth knowledge of the available expertise within the research ecosystem;
- EEN database: anonymised competence/technology search

# 3. How to initiate discussions

When starting discussions, the recommendation is to focus on key elements in order to share a common approach between the company and the research organisation.

It is recommended that the company presents key elements, as described on the next slide, in order to facilitate identification of the most relevant contribution from the research organisation. The definition of a joint project is the result of combining the expectations and capabilities of the company and the research organisation.

Before starting in-depth discussions, it is highly recommended that both parties sign a non-disclosure agreement. For further information on the topic, you can contact IPIL or IP professionals (IP attorneys, IP lawyers)

- European IP Helpdesk – Template “[Mutual Non Disclosure Agreements](#)” and factsheet “[Non-disclosure agreement: a business tool](#)”

**Key Message:** different forms of cooperation correspond to different needs. If the company expects a suitable approach answering their needs, the company has to be transparent and explicit.



# 3. How to initiate discussions

**Company:** *value proposition, products/services, activities, business model, size, position of the company within a group, organisation, role of the contact person, decision making, etc.*

**Positioning on the market:** *competition, market drivers and trends, current positioning and anticipated changes, market entry barriers, patent landscape, etc.*

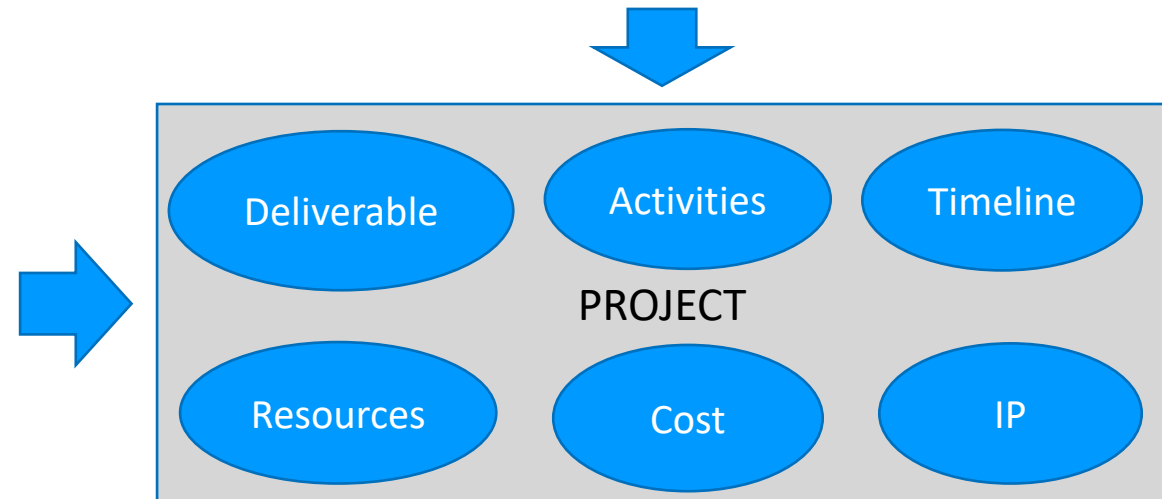
**Identified opportunity:** *what is the company's expectation? What is the expected project outcome? What is the expected time to market?*

**Knowledge gap:** *What are the technological / scientific unknowns? What is the level of risk that the company can accept? How ambitious should the project be?*

**Resources:** *what is the starting point for the company? What has already been done in relation with the identified opportunity? What are the company's people, skills available for the project? What company's equipment/research facilities shall be used? Does the company have the Freedom to Operate? How much is the company willing to invest?*

**Research organisation:** *research domains, research teams, expertise, background intellectual property, research facilities and equipment, on-going projects, track record, role of the contact person, decision making process*

**Forms of cooperation:** *collaborative research, contract research, research services, sharing of equipment or people, etc.*



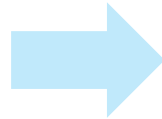
# 4. What are the most common forms of cooperation?

What is the company looking for?

Form of cooperation

How long does it take?

An answer to a specific question



Research services / consulting

A few weeks

Access to existing Intellectual Property (IP)



Licensing

A few weeks, possibly months

A solution to a specific problem



Contract research

A few months

Jointly develop new solutions



Collaborative research

2 to 4 years

Access to highly qualified staff and/or equipment

Either included in other forms of cooperation or specific



Sharing resources (joints labs or PhD / post-doc training)

# 4. What are the most common forms of cooperation?

**Research services:** for short-term results to answer a specific question leveraging the expertise / equipment of the research organisation. It generally contains an obligation of result. The services shall be provided at market price or at a price reflecting the full costs of the services plus a reasonable margin. The results belong to the company after payment.

**Licensing:** In this case, the company is interested in gaining access to IP owned by the research institute. The company can request access rights to implement a project or to use the results for a specific technical field or in a defined territory. A licensing agreement which defines the scope and the limitations of the licensing conditions, should be signed between the parties in return for a fair and reasonable compensation. The company may acquire the ownership rights over the IP owned by the research organisation (assignment) only in exceptional cases.

**Contract research:** this type of arrangement is relevant if the company asks a result-oriented solution. It is applicable if the research organisation has specific assets (IP, expertise, equipment) to answer the request and commits to using certain means. The services shall be provided at market price or at a price reflecting the full costs of the services plus a reasonable margin or resulting of arm's length negotiations. IP ownership and access rights are negotiated before the start of a project.

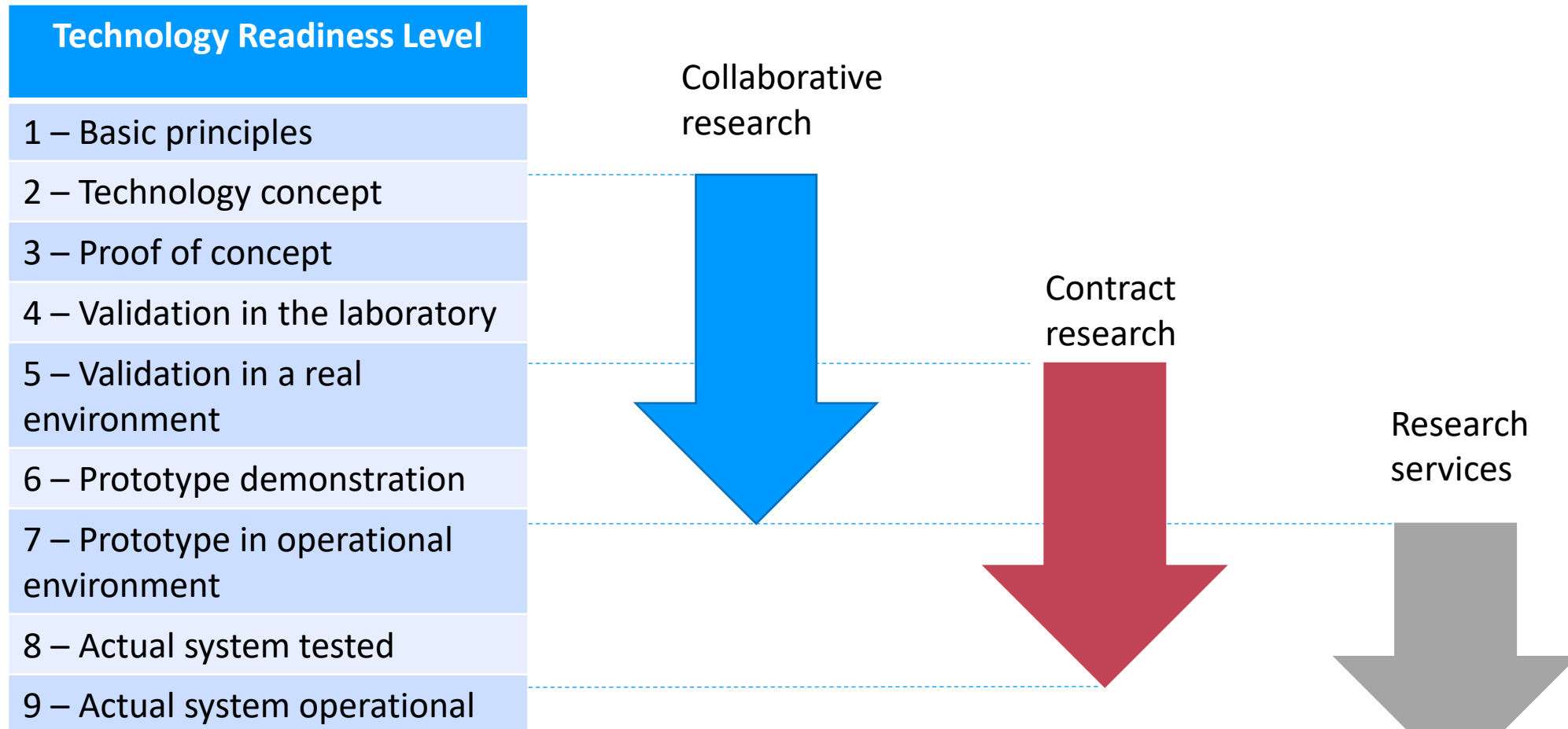
**Collaborative research.** The company and the research organisation both bring in expertise and commit resources in order to reach a common objective. The terms and conditions of the collaboration (costs, sharing of risks and results, access to – and rules for – the allocation of intellectual property, etc.) must be concluded prior to the start of the project.

**Resource-sharing:** In this model, the company and the research institute either share staff – typically PhDs or post-docs – or equipment – joint labs – in order to work jointly on research and development activities.



# 4. What are the most common forms of cooperation?

It is possible to use any form of cooperation at any technology readiness level (TRL). The graph below shows some trends. Licensing can happen at any TRL:



# 4. What are the most common forms of cooperation?

Research and development collaborations, if not necessarily adapted to a specific situation, should always be considered as this form of cooperation fully leverages the synergies between a company and a research organisation.

When defining a collaborative research project, three main steps are recommended to ensure that all stakeholders share the same view. A tool is proposed to build a collaborative research project. The main aspects of a collaborative research project shall be clarified before drafting legal agreements.

**Key Message:** Starting a research collaboration means:

1. Aligning vision, goals and means;
2. Getting people to work together,
3. Defining processes to monitor the project and outcomes.

# 5. How is intellectual property managed?

When entering into R&D cooperations, parties may bring in previously owned intellectual property assets which are known as Background IP. Background IP also includes rights legally held by parties (e.g. through licensing). Background IP can be patents, know-how, designs, software, etc. Each party should decide on the conditions to access rights of other parties to its own background for the purpose of carrying out the project and for the future use of project results.

The project implementation will generate intellectual property, which is known as Foreground IP (results).

Agreements on ownership, and access to Intellectual Property (IP), should deal with IP which arise automatically when the IP is created (such as copyright) and with rights which are granted following application (such as patents).

**Key Message:** It is important to distinguish ownership of intellectual property and access rights to use it.

# 5. How is intellectual property managed?

Results arising from the research are usually the property of the project partner that has generated them.

Where both parties have jointly generated the results and it is not possible to establish their respective contribution or to separate them for protection, the parties automatically become joint owners.

Active contribution to the results should mainly be taken into account when defining the ownership; mere efforts or providing funding are not sufficient to create co-ownership. Active contribution can be: conceiving the idea, developing the invention, providing solutions to a problem, etc.

In case of joint ownership, both parties need to inform the other party unless otherwise agreed to further use and commercially exploit the Foreground IP. In most cases, it is better to have a clear ownership situation with access rights granted according to the interest and needs of the other party.

As an alternative to a joint ownership regime (generally more complex), project partners can agree that one party to the collaboration owns the IP generated by the project and that the other party has a specified right to use it.

## Advice:

- It is of key importance to understand the interest of each party. For what purpose is it important for each party to hold ownership over the foreground IP? The following aspects shall be contemplated when defining IP ownership:
  - What is the relative importance of background IP needed from each party?
  - What is the intellectual contribution of each party in the foreground IP?
  - Who is willing to pay for the maintenance of the IP rights?
  - What is the exploitation plan of the foreground IP? In which technical domains and territories is each party interested in exploiting the foreground IP?
  - Who will be responsible for taking actions against a possible infringement (i.e. enforcement)

# 5. How is intellectual property managed?

## Monitoring of results

It is recommended that any and all project results are documented as to :

The ownership status;

The status of the IP protection;

Any restriction on the exploitation (freedom to operate).

IP assets can be protected by several types of rights or by trade secret depending on the nature of the results and interest of the Parties and their respective IP policies. Consequently, the most appropriate protection strategy must be chosen pertinent to the business strategy.

**Key Message:** promptly and carefully review all project results to identify IP, whether patentable or not, that may have potential commercial value. Clearly define allocation and access rights for any result according to the terms of a Collaboration Agreement.

## Publications

Scientific publications are key for researchers at public research organisations, also within collaborative research projects with companies. The aim of these publications is to share basic scientific principles with the research community. In contrast, scientific publications are NOT about divulging commercially relevant information. Thus publishing should not compromise applying for an IP right or the commercial endeavour of the company. The company shall be granted a right to postpone publications for the purpose of applying for an IP right (i.e. patent). The company may also have the right to amend a publication in the case it contains confidential information. In many cases, publications serve both the interest of the research institution and the company.

# 5. How is intellectual property managed?

Research services / consulting

The company gets full ownership over the results after payment of the services. The research institute keeps the ownership of its background intellectual property.

Licensing

The company is getting access to background IP owned by the research organisation in return for a payment.

Contract research

The research institute keeps the ownership of the background. Ownership of foreground IP and access rights to background and foreground are negotiated before the start of a project.

Collaborative research

Each party keeps its background intellectual property. Foreground IP belongs to the party that has generated it. Clear provisions shall be defined on intellectual property that has been jointly developed, in terms of ownership, access rights, exploitation and enforcement.

Sharing resources (joints labs or PhD / post-doc training)

Clear provisions shall be defined on intellectual property that has been jointly developed in terms of ownership, access rights, exploitation and enforcement.