



China Intellectual Property
Management Network

IP Management in Collaborative Research Projects – an Overview of Good Practices

Managing IP at universities. From IP awareness building to commercialization of research results

合作研究项目中的知识产权管理 ——有效途径概述

大学知识产权管理——从IP意识建设到研究成果商业化

Online Event – 11 December 2020

Léa Montesse, University of Alicante



Co-funded by the
Erasmus+ Programme
of the European Union

CIPnet is co-financed by the European Commission through the Erasmus+ Programme, under contract number 566103-EPP-1-2017-1-PL-EPPKA2-CBHE-IP. The contents of this publication reflect only the views of the authors, and the European Commission cannot be held responsible for any use which may be made of the information contained therein.

Roadmap

1. Collaborative Research Projects

What are they? Examples derived from EU funding

1. 合作研究项目

2. IP Management

What are we talking about when referring to IP Management during the lifecycle of a Project?

2. 知识产权管理

3. Relevance of IP Management in Collaborative Research Projects

3. 合作研究项目中知识产权管理的相关性

4. Ten Good Practices in IP Management

And related tips to increase IP awareness within your institution

4. 知识产权管理的十大有效途径

1. Collaborative Research Projects

1. 合作研究项目

Main features

- Mix of academic and industrial partners / some weaker, some stronger
- Different countries, languages and backgrounds
- Diverging IP policies
- Work carried out in parallel (work packages) and/or jointly
- Diverging interests at exploitation stage (e.g. publishing vs patenting)
- **HENCE: development of IP outputs BUT plurality of IP practices and interests around the negotiation table.**

Examples (derived from European Union funding)

- The main EU source of research funding: Horizon 2020 (2014-2020)
- Next up: Horizon Europe (IP rules currently under final negotiation)
- Chinese participation in H2020:
<https://ec.europa.eu/programmes/horizon2020/en/horizon-2020-whats-it-china>

主要特点

- 学术人员和产业人员均有参与，一些强势一些弱势
- 不同国家、语言和背景
- 不同的IP政策
- 平行（工作包）和（或）联合开展工作
- 研发阶段不同的利益点（如出版与专利）
- 因此，随着IP不断产出，多个IP管理和利益应通过谈判协商解决

欧盟资助项目案例

- 主要由欧盟提供项目资金：地平线2020（2014-2020）
- 下一步：地平线欧洲（IP规则已经进入最后的协商阶段）（中方参与H2020）

<https://ec.europa.eu/programmes/horizon2020/en/horizon-2020-whats-it-china>

2. Intellectual Property Management

2. 知识产权管理

IP Management: within your institution...

- As an academic institution: build your **internal IP policy** (IP ownership, third party rights, IP filing protocols, publication rules, confidentiality protocols)
- Have this policy reflected in the researchers' contracts (e.g. issues such as confidentiality, ownership of research results)
- Apply this policy to research collaborations with third party institutions
- **ATTENTION: international project partners may have their own policies – not always compatible with yours. Importance of negotiation.**

... and in a collaborative project's lifecycle

- IP Management in a collaborative project = relevant at all stages
- **Proposal stage:** assess all partners' policies and expectations. Secure confidentiality and IPR.
- **Negotiation stage:** build a strong contractual basis for cooperation. Set up IP management bodies.
- **Implementation stage:** monitor IP developments. Implement policies. Clear rights. File for IPR.
- **Exploitation stage:** set up contracts (licensing, assignment), ensure dissemination.
- **WHAT FOR: ensure that you take all steps to ensure a good exploitation of results.**

1. 从本机构出发

- 作为一个学术机构：构建自身的知识产权政策体系（知识所有权，第三方权利，知识产权归档规程，发表规则，保密协议）
- 将政策写入研究人员的合同（如保密协议，研究成果所有权归属）
- 将该政策应用在与第三方机构的合作中
- **注意：国际项目的合作者可能有自己的政策——并不总是与你方政策相容。注意加强沟通协商。**

2. 从合作项目全过程出发

- 在合作项目中的IP管理：在所有阶段都有关联
- **立项阶段：**评估各方政策和预期。保密和知识产权。
- **协商阶段：**为合作搭建强大的合同基础。构建知识产权管理主体。
- **实施阶段：**监管IP动态。执行政策、明确权利、为知识产权备案。
- **研发阶段：**签署合同（许可，转让），保证传播
- **目的：保证实施所有步骤，以确保成果得到良好利用。**

3. Relevance of IP Management in Collaborative Research Projects

3. 合作研究项目中IP管理的相关性

Why is it important to consider IP management when taking part in a collaborative research project?

– In many cases (e.g. H2020 funding), the proposal is evaluated in terms of **impact and feasibility**. This goes by showing that IP and exploitation issues are duly considered.

– In many cases (e.g. H2020 funding), participants have to show **best efforts** commitments to **exploit their own results**. IP management is essential to pave the way to a successful exploitation.

– **Therefore, a convincing outline of IP management and exploitation strategies at individual and consortium level can help your proposal be successful.**

– Results of research and development activities often require further investment to take them to market. Results that are well-protected through **intellectual property are more appealing to potential investors**.

– Properly managing IP from the early stages helps project participants **avoid future conflicts** among the consortium.

为什么在参与合作研究项目时要重视IP管理？

- 在许多案例中 (例如:H2020计划的资金), 欧盟从影响和可行性方面对提案进行评估。这表明知识产权和研发问题均得到重视。
- 在许多案例中 (例如:H2020计划的资金), 参与者必须尽最大努力承诺, 充分利用自己的成果。知识产权管理对成功研发铺平道路来说至关重要。
- 因此, 在个体和合作层面有一个令人信服的IP管理和研发战略可以帮助您的提案获得成功。
- 研发的成果往往需要进一步的投资才能将其推向市场。有良好IP保护的成果对潜在投资者更有吸引力。
- 从早期阶段起正确管理IP有助于项目参与者避免将来在合作集团之间发生冲突。

4. Ten Good Practices in IP Management when running Collaborative Research Projects

+ tips to increase staff awareness

4. 在运行合作研究项目时，IP管理的十大有效途径

+提示，增强员工意识

Overview of Good Practices

01 Know the legal basis

02 Perform IP checks before starting

03 Negotiate IP matters early

04 Plan ahead your IP Management tools

05 Spend time on your collaboration agreement

06 Clarify ownership claims early

07 Deal with joint ownership early

08 Preserve confidentiality

09 Protect the results first

10 Paving the road to commercialisation

好的实践概述

01 了解法律依据

02 启动前执行IP检查

03 尽早洽谈IP事宜

04 提前计划您的IP管理工具

05 仔细起草合作协议

06 尽早阐明所有权主张

07 提前明确共同所有权事宜

08 保密

09 优先保护研究成果

10 为商业化铺平道路

01. Know the Legal Basis

Ahead of time (before drafting the proposal):

- Study **the legal basis of the collaboration** if there is one (e.g. Rules for Participation for Horizon 2020: contain many IP obligations!)
- Get informed about the **contractual basis**: what you will have to sign with the funding authority - grant agreement, service contract... which IP clauses? *Attention: in certain co-funded projects, partners may have to sign different national funding contracts with different clauses!*
- Get familiar with **the key concepts** and vocabulary
- Check if the IP rules are binding or not
- Check the IP rules: they provide the framework for what you can and cannot do.

Raise Awareness:

- If your institution takes part in recurring research funding programmes: train your legal, tech transfer and research staff about the rules!

01. 了解法律依据

前期（起草提案前）

- 如果有合作关系，务必学习相关法律法规（如H2020项目参与规则：包含多个IP责任与义务！）
- 了解合同基础：你将与资助机构签署什么授予协议，服务合同、哪些IP条款？ *注意：在某些共同出资的项目中，参与方可能不得不签署不同条款的国家资助合同！*
- 熟悉关键概念和词汇
- 核实IP规则是否有法律约束力
- 核 验 IP规则：它们为您可以 and 不能做的事情提供了依据。
- **提高意识**

如果您的机构参加了周期性的研究资助项目：请对您的法律、技术转让和研究人员进行有关规则的培训！

02. Perform IP checks before starting

Before the project negotiations start, perform IP checks regarding the work to be developed and the planned results:

- Define the **state of the art** (look around the internet and patent databases: maybe your project idea has already been carried out somewhere)
- Perform **freedom-to-operate searches** to see if the exploitation of project results will be possible without infringing third party rights
- Protect what you can already protect (file for IP protection over your existing IP assets – they will be better protected this way)
- **Conclude confidentiality agreements / NDAs** before disclosing your research ideas to partners or investors. THIS IS CRUCIAL to keep novelty of potential future patents and to protect valuable know-how!

Raise Awareness:

- Train your staff on IP searches (including trade mark searches vs project acronyms)
- Implement confidentiality protocols, train your staff to keep secrecy and use NDAs.

02. 启动前执行IP检查

在项目谈判开始之前，对要开展的工作和预期的成果进行IP检查：

- 明确最新研究进展（浏览互联网和专利数据库：也许您的项目构想已经在某个地方实施了）
- 进行自由操作搜索，看是否可以在不侵犯第三方权利的情况下利用项目研究成果
- 保护您可以保护的内容（对现有IP资产进行归档IP保护，这样可以起到更好地保护效果）
- 在向合作伙伴或投资者透露您的研究思路之前，请先订立保密协议/NDAs（保密协议-不公开协议）。这对于保持潜在专利的新颖性和保护宝贵的专有知识至关重要！

提高意识：

- 对员工进行IP搜索培训（包括商标搜索和项目缩写）
- 执行保密协议，培训员工保密和遵守 NDA（保密协议-不公开协议）。

03. Negotiate IP Matters early

- If funding is granted via a call for proposals: check the call's requirements early – are there any IP conditions or requirements?
Is IP relevant in the final assessment of your proposal? In the future implementation and exploitation stages?

In Horizon 2020, funding is allocated on the basis of calls for proposals. The proposals submitted are assessed on basis of various criteria, including IP.

- On this basis: **discuss with your partners early enough.**
- The proposal may require a draft IP / exploitation strategy
- Even if it does not, **it is essential to know your partners' policies and expectations in terms of IP and exploitation**, as early as possible. This is crucial as it will help avoid misunderstandings once the project is launched.

Raise Awareness:

- If you apply often to the same type of funding, train your staff about IP requirements at the proposal stage (draft IP strategies etc.). Consider developing templates.
- Do not let researchers draft the IP / exploitation part alone:
INVOLVE YOUR TT OFFICE!

03. 尽早洽谈IP事宜

- 如果通过提案征集获得了资金：请尽早检查提案的要求—是否有IP条件或要求？知识产权与您的提案的最终评估是否相关？在未来的实施和研发阶段是否有IP相关事宜？

在H2020中，资金是根据提案内容分配的。所提交的提案是根据包括知识产权在内的各种标准进行评估的。

- **在此基础上：与你的合作伙伴应当尽早商讨**
- 该提案可能需要知识产权或研发策略草案
- 即使不需要，也必须尽早了解您的合作伙伴在IP和研发方面的政策和预期。这一点至关重要，因为一旦启动项目，它将有助于避免分歧。

提高意识：

- 如果您经常申请相同类型的资金，请在提案阶段培训您的员工有关IP要求(起草IP策略等)。考虑制作相应模板。
- 不要让研究人员独自起草IP /研发部分：让TT OFFICE参与进来！

04. Plan ahead your IP management tools

Still at very early stages, it is essential to set up your future IP management framework:

- Think about **the main IP management structure** for the project
- Consider appointing a **dedicated IP management person or body**

In EU-funded projects such as H2020, there is no one-size-fits-all solution: the size and nature of the management structure will depend on the size of the project and on the nature of the IP assets developed.

- Set up **protocols for IP management and monitoring of IP developments** throughout the project's life (better centralise this than let every partner do this individually)
- Schedule related **deliverables and management plans** and regular updates.

Raise Awareness:

- Consider involving your legal office to create **templates of IP and exploitation plans and deliverables** (e.g. IP register for the project). This will allow you to use standard documents that match your own IP practices, across your various projects.

04. 提前计划你的IP管理工具

仍处于早期阶段, 建立您未来的IP管理框架至关重要:

- **思考项目的主要IP管理结构**
- **考虑指定一个专门的IP管理人员或机构**

在欧盟资助的项目, 如H2020, 没有一刀切的解决方案: 管理结构的规模和性质将取决于项目的规模和开发的IP资产的性质。

- 为项目的整个周期内的IP管理和IP开发监控设置协议 (最好是集中统一制定, 而不是让每个合作伙伴单独制定协议)
- 安排好相关的可交付成果和管理计划以及定期更新。

提高意识:

- 考虑让您的法律团队创建IP、研发计划和可交付成果模板 (例如: 项目的IP注册)。这将使您可以在各个项目中使用与您自己的IP管理相匹配的标准化文件。

05. Spend time on your collaboration agreement

If your proposal is successful and funding is secured, the next step is usually to draft a **consortium agreement or collaboration agreement** to get the project going.

It is crucial at this stage to **spend enough time drafting / negotiating / refining** this document as it will become the main contractual basis for the collaboration.

- Check if templates exist (e.g. [DESCA](#) for EU-funded projects)
- Always tailor the templates to your own needs and your own situation!
- Regarding the IP clauses: check each one carefully. Be mindful of what you agree to.
- Define your background carefully (background = the assets and IPR you bring to the cooperation, upon which you will base your research work)
- Include confidentiality clauses to protect know-how and results before patenting.

Raise Awareness:

- Never let research fellows negotiate such contracts alone. Here the **support of the legal office / tech transfer team will be fundamental** to ensure that the agreement fits your institution's policy and meets your interests.

05. 仔细起草合作协议

如果您的提案成功获得了资金，下一步通常是起草联合协议或合作协议以使项目继续进行。

在这个阶段，花足够的时间起草、谈判、完善这份文件是至关重要的，因为它将成为合作的主要合同基础。

- 核实是否有现成模板（例如欧盟资助的项目的DESCA）
- 始终根据自己的需要和情况定制模板
- 关于IP条款：请仔细检查每一项。尤其注意您需要签署同意的部分。
- 仔细定义您的背景（背景=您为合作提供的资产和知识产权，并在此基础上开展研究工作）
- 包括保密条款，以在专利申请前保护专有技术和成果

提高意识：

➤ 决不让研究人员单独谈判这样的合同。在这里，法务部 / 技术转让小组的支持将对确保协议符合您的机构的政策和满足您的利益起到根本性的作用。

06. Clarify ownership claims early

During the entire project implementation, keep in mind that different partners will be working in parallel on different work packages. For transparency reasons, it is therefore good practice to:

- Regularly **monitor the work** developed and keep track of research activities
- **Clarify ownership claims as early as possible -> not all partners necessarily have the same understanding of a situation!** Some may think that their contribution to results gives them ownership rights, others may disagree!
- It is therefore important to **resolve all ownership-related disputes** before reaching the exploitation stage
- Regularly monitor the status of the related IP (who filed for what).

Raising Awareness:

- Train research staff to keep **lab notes** and management staff to keep **IP registers**
- IP Manager to **schedule regular updates** with all consortium partners
- Check on each partner's ownership claims regularly.

06. 尽早阐明所有权主张

请记住，在整个项目实施过程中，不同的合作伙伴将在不同的工作包上并行工作。因此，出于透明度的原因，以下做法值得借鉴：

- 定期监控开展的工作并跟踪研究活动；
- 尽早阐明所有权问题-不一定所有合作伙伴对情况都有相同的认识！有些人可能认为他们对结果的贡献赋予了他们所有权，其他人则可能不同意！
- 因此，在进入研发阶段之前解决所有与所有权有关的分歧很重要
- 定期监控相关IP的状态（谁提出了什么要求）。

提高意识：

- 培训研究人员保留实验室记录，培训管理人员保管好IP寄存器
- IP 经理与所有集团合作伙伴安排定期更新
- 定期检查每个合作伙伴的所有权声明。

07. Deal with joint ownership early

By nature, collaborative research projects entail that certain results might be developed jointly, by two or more institutions together.

- Consequently: **IP joint ownership** is something to think about. If you are involved in a work package with another institution, you may end up joint owners of some of the results: BE PREPARED!
- Check if the specific funding scheme poses rules with regard to joint ownership.

Example linked to EU funding: in H2020, the grant agreement defines what has to be considered as joint results and poses specific obligations for joint owners, such as the obligation to conclude a joint ownership agreement (JOA).

- **Best practice:** in case of jointly-owned results, the relevant owners should sit together and conclude a JOA as early as possible, to define their respective shares and rights in the results (e.g. territorial split). This will help avoid blockages down the road, at the exploitation stage.

07. 提前明确共同所有权事宜

从本质上讲，合作研究项目的某些成果需要由两个或多个机构共同开发。

- 因此：知识产权共同所有权是要考虑的问题。如果您与另一机构一起参与工作包，则可能最终成为某些成果的共同所有者：做好准备！

- 检查特定的资助计划是否对共同所有权制定了规则。

与欧盟注资相关的示例：在H2020中，拨款协议定义了必须视为共同成果的内容，并对共同所有者提出了具体义务，例如签订共同所有权协议（JOA）的义务。

- **最佳做法：**如果是共同拥有的成果，则相关所有者应在一起，尽早达成JOA，以定义各自在成果中的份额和权利（例如领土分割）。在研发阶段，这将有助于规避阻碍。

08. Preserve confidentiality

Performing R&D tasks in the framework of a collaborative project means that you may develop results that are potentially protectable by IPR, or know-how that, although not protectable as such (e.g. a method, an algorithm), has some value.

- **Several types of IPR (patents, utility models, industrial designs) require novelty as one of the filing conditions.** Novelty means that information regarding the invention or result should not be disclosed to anyone before filing, except under confidentiality obligations.
- Know-how can be valuable and yet unprotectable by IPR. In such cases, the only way to protect it against competitors is to keep it as **a trade secret**.
- **For these reasons: keep all project information and outputs confidential and only disclose them under confidentiality agreements / NDAs!**

Raising Awareness:

- Train your staff about the importance of maintaining confidentiality
- Set up protocols surrounding the use of confidential information
- Use encryption mechanisms and contractual tools to preserve secrecy ([NDAs](#)).

08. 保密

在合作项目的框架内执行研发任务，意味着您的研发结果可能会受到IPR或专有技术的保护，尽管它们本身不能受到保护（例如方法、算法），但仍具有一定价值。

- 几种类型的知识产权（专利、实用新型、工业品外观设计）要求新颖性作为申请条件之一。新颖性意味着，除非有保密义务，否则在提出申请之前，不得将与发明或成果有关的信息透露给任何人。
- 专有技术可能很有价值，但不受知识产权保护。在这种情况下，保护它免受竞争者侵害的唯一方法是将其作为商业秘密。
- 出于这些原因：对所有项目信息和产出保密，并仅在保密协议/ NDA下进行展示！

提高意识：

- 培训您的员工有关保密的重要性
- 设置有关机密信息使用的协议
- 使用加密机制和合同工具来保密（NDA）

09. Protect the results first

In many projects, the dissemination of results (research papers, conferences) is key for visibility and enhancement of the researchers' careers. **But before disseminating the results or otherwise presenting them to the scientific or investor community (thus, disclosing them to the public), it is essential to protect them!**

- **Different types of IPR protect different types of results:** copyright (software, articles), patents (inventions, processes), industrial designs (new appearances of products), trade marks (names and logos), etc. **Involve your legal office and, if needed, external IP lawyers to assess the suitability of each type of IPR for each result.**
- **Most IPR are territorial.** For example, you will get trade mark rights or patent rights only in the territories where you file for protection: **role of the IP Manager to oversee protection steps!**

Raising Awareness:

- **Train researchers to keep results secret** before suitable protection steps have been taken
- Some IPR require renewal or payment of annuities: **train your staff to monitor deadlines!**

09. 优先保护成果

在许多项目中，成果的传播（研究论文、会议）对于提高研究人员的知名度和职业发展至关重要。但在成果传播或以其他方式展示给科学界或投资界之前（进而向公众披露），保护它们至关重要！

- 不同类型的知识产权保护不同类型的成果：版权（软件、文章），专利（发明、过程），工业品外观设计（产品的新外观），商标（名称和徽标）等。如果需要外部知识产权律师评估每种类型的IPR对每种成果的适用性，请咨询您的法务部。
- 大多数IPR都是地域性的。例如，您的商标权或专利权仅在您申请的地区中才能获得保护：IP管理者的角色，就是监督保护措施是否到位！

提高意识：

- 在采取适当的保护措施之前，培训研究人员对成果保密
- 一些知识产权要求续签或支付年金：培训您的员工以监控截止日期！

10. Paving the road to commercialisation

Not all collaborative research projects produce exploitable results – some project outputs have a lower TRL and will require years of extra R&D / fine-tuning before reaching the market.

- However, results should in principle be used once the project ends: be commercialised, or further used in research.

Example: in H2020, there is an obligation to use or exploit the results for 4 years after the project ends.

- Before the project ends, it is therefore essential to **set up an exploitation strategy**.
- **Which routes** are available depending on the nature and TRL of results?
- **Which partners own the key results?** Are they interested in exploiting them? Are other partners interested in exploiting them?
- If several partners want to continue together: **set up a spin-off? A joint-venture?**
- Are any IP assets (background or results) belonging to other partners necessary at the exploitation stage? **If so: negotiate licences or further collaborations early enough!**
- Which markets are available? Do you have **freedom to operate** on such markets?
- Remember the territorial aspect of IPR: file for protection before you go!

10. 为商业化铺平道路

- 并非所有合作研究项目都能产生可利用的成果——一些项目的产出具有较低的TRL，在进入市场之前将需要数年的额外研发/调整。
- 但是，原则上应在项目结束后立即使用成果：将其商业化或进一步用于研究中。
- 示例：在H2020中，明确了在项目结束后的4年内使用或开发成果的义务。
- 因此，在项目结束之前，必须制定开发战略
- 根据成果的性质和TRL，有哪些可用的路线？
- 哪些合作伙伴拥有关键成果？他们有兴趣利用它们吗？其他合作伙伴是否有兴趣利用它们？
- 如果几个合作伙伴想继续在一起：成立子公司？一个合资机构？
- 在研发阶段是否需要其他伙伴的任何IP资产（背景或结果）？如果是这样：尽早协商许可或进一步的合作！
- 有哪些市场？您在这些市场上有经营的自由吗？
- 请记住IPR的地域因素：在该地域提前申请保护！

Conclusion: keep in mind...

Collaborative research projects are a great means of pooling resources and skills to produce innovation. From an IP management standpoint, they involve:

- Getting to know the rules – learn about them early!
- Giving particular attention to confidentiality, ownership and joint ownership issues
- Agreeing on a project strategy for IP protection rather than relying on individual efforts
- Clarifying dissemination and exploitation expectations from the start
- Setting up a strong contractual basis and a flexible IP management structure.

IP awareness checklist: train you staff to...

- Get acquainted with project rules (if you apply to the same funding often)
- Perform IP searches before submitting a research idea
- Maintain secrecy and set up confidentiality protocols
- Use templates for proposals, IP planning and deliverables: streamline IP practices
- Keep track of the work done and of the IP developed over time.

结论：请牢记

合作研究项目是汇集资源和技能以进行发明创造的好方法。从IP管理的角度来看，它们涉及：

- 了解规则 – 尽早了解它们！
- 特别注意机密性，所有权和共同所有权问题
- 共同商定知识产权保护的项目策略，而不是依靠个体努力
- 从一开始就明确传播和研发的期望
- 建立牢固的合同基础和灵活的IP管理结构。

知识产权意识清单：培训您的员工做到。

- 熟悉项目规则（如果您经常申请相同的资金）
- 在提交研究思路之前执行IP调查
- 维护保密性并制定保密协议
- 使用提案、知识产权规划和交付品的模板：简化知识产权管理操作
- 跟踪完成的工作以及随着时间推移开发的IP。

Thank you!

Léa Montesse
University of Alicante
lea.montesse@ua.es



China Intellectual Property
Management Network

www.cipnet.eu



Co-funded by the
Erasmus+ Programme
of the European Union

CIPnet is co-financed by the European Commission through the Erasmus+ Programme, under contract number 586103-EPD-1-2017-1-PL-EPFKA2-OSHE-JP. The contents of this publication reflect only the views of the authors, and the European Commission cannot be held responsible for any use which may be made of the information contained therein.