European IP Helpdesk

Stay ahead of the innovation game.

European IP Helpdesk Webinar:
Technology Transfer

Dr. Christian Hackl
Senior IP Advisor

Feb. 7, 2023

European IP Helpdesk

- Service initiative of the European Commission
- Addressing **current and potential beneficiaries of EU-funded projects, researchers and EU SMEs**
- Free-of-charge first-line support on intellectual property (IP)
- Hands-on IP and innovation management support
- International pool of IP experts from various thematic fields
- Unique cooperation scheme with the Enterprise Europe Network: 44 ambassadors from 27 EU countries

Training
free online and on-site sessions

Website
frequent updates from the world of IP and innovation

Helpline
confidential treatment of individual IP questions

Publications
practical IP knowledge through high-level publications

Ambassadors
local IP support throughout Europe

Events
info point at key networking events and conferences

The EC IP Helpdesks

Upcoming webinars

Europa - Upcoming events

26 JAN 2023
Training and workshops
EU - Webinar: IP Assessment
Live streaming available

01 FEB 2023
Training and workshops
EU - Webinar: IP in Horizon Projects (H2020/HEurope)
Live streaming available

07 FEB 2023
Training and workshops
EU - Webinar: Technology Transfer
Live streaming available

08 FEB 2023
Training and workshops
EU - Webinar: HRP Community meets European IP Helpdesk: Intellectual Property as a Business Asset
Live streaming available

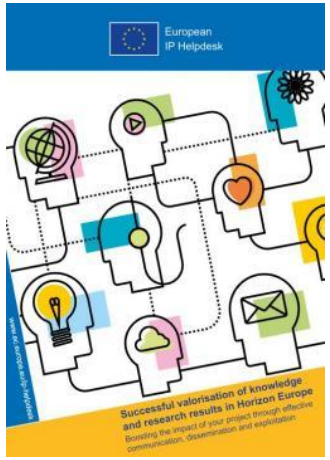
09 FEB 2023
Training and workshops
EU - Webinar: IP in Biotechnology
Live streaming available

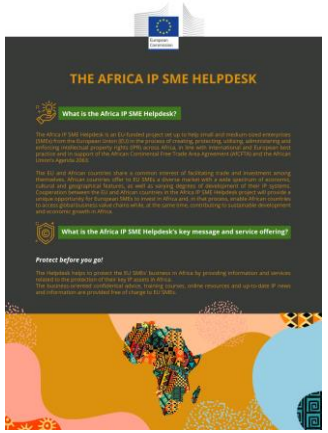
15 FEB 2023
Training and workshops
EU - Webinar: The Importance of IP for SMEs
Live streaming available

16 FEB 2023
Training and workshops
EU - Webinar EPO Coop: Patent protection for EU funding beneficiaries - Medical Technologies
Live streaming available

23 FEB 2023
Training and workshops
EU - Webinar: IP Commercialisation and Licensing
Live streaming available

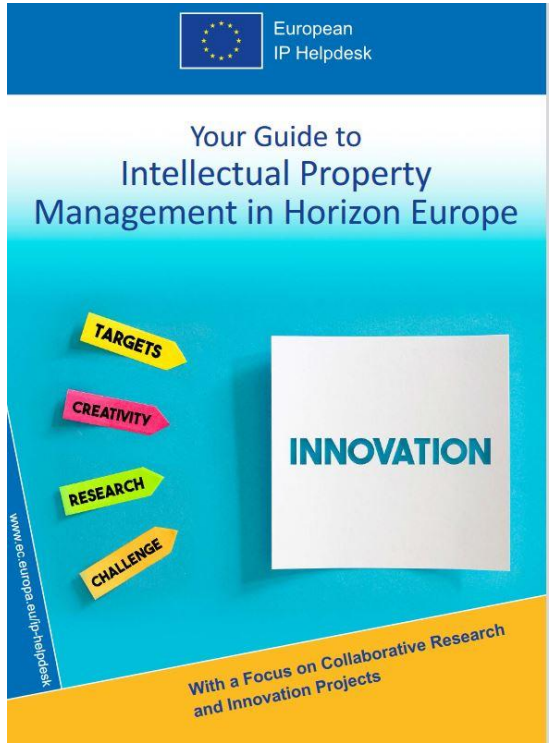
EC IP (SME) Helpdesk Hub – Gateway to Information





- E-learning modules & more
- Guides / Topic, country, sector-specific factsheets / Infographics
- Case studies

Your Guide to Intellectual Property management in Horizon Europe



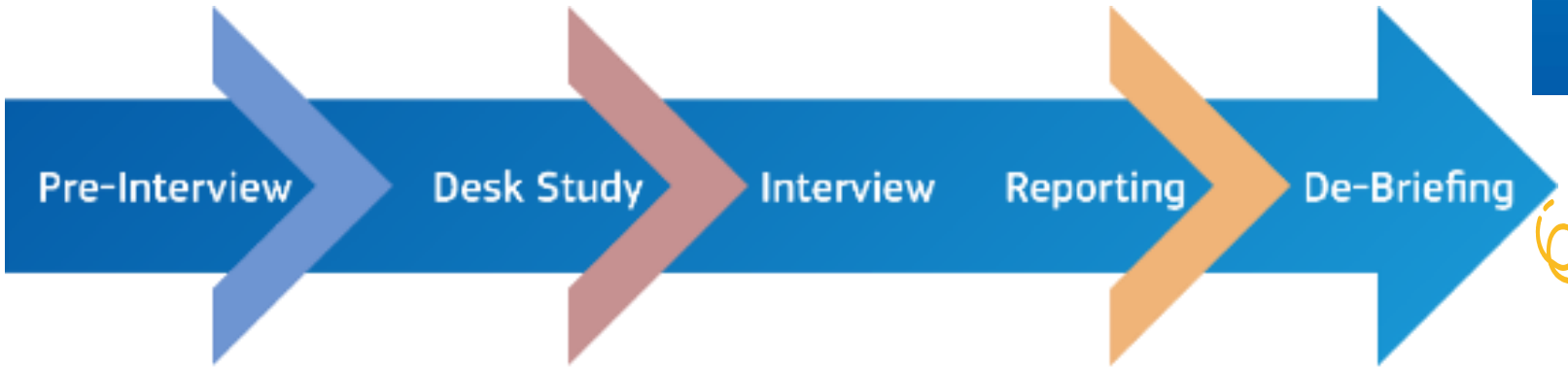
https://op.europa.eu/en/publication-detail/-/publication/43e0204c-6ed3-11ed-9887-01aa75ed71a1/language-en/format-PDF/source-276235204

Ambassador Scheme

- **Cooperation scheme** with the Enterprise Europe Network (EEN): 44 ambassadors – 27 countries
- **Building IP capacities** among European SMEs
- **Overcoming language barriers**
- Making the topic **more accessible**
- Exchange and feedback from ambassadors on **needs of SMEs**
- Local **awareness** and **training events**

Horizon IP Scan

IP Support Service for SMEs in Collaborative EU-funded Research Projects



www.horizon-ipscan.eu

Horizon IP Scan

- **SMEs/start-ups involved in EU-funded collaborative R&I projects**
- Increasing overall **IP awareness** and **IP management knowledge**
- **Free of charge**
- applications until **November 2023**

www.horizon-ipscan.eu

Today's speaker

Dr. Christian Hackl

- Managing Director of TUM-Tech GmbH (for 20 years)
- Assistant Professor at the Chair for Technology and Innovation Management (Technical University of Munich: TUM)
- Regular lecturer for the European Patent Office (EPO) / European Patent Academy and the EU-IP Helpdesk
- Author of several publications, e.g. case studies on usage of IPR by companies
- Co-Founder and Managing Director of a start-up (renewable energy)

Roadmap

I. What is Technology Transfer?
II. Stages of Technology Transfer
III. Actors + Assistance
IV. Case Studies

Roadmap

I. **What is Technology Transfer?**
II. Stages of Technology Transfer
III. Actors + Assistance
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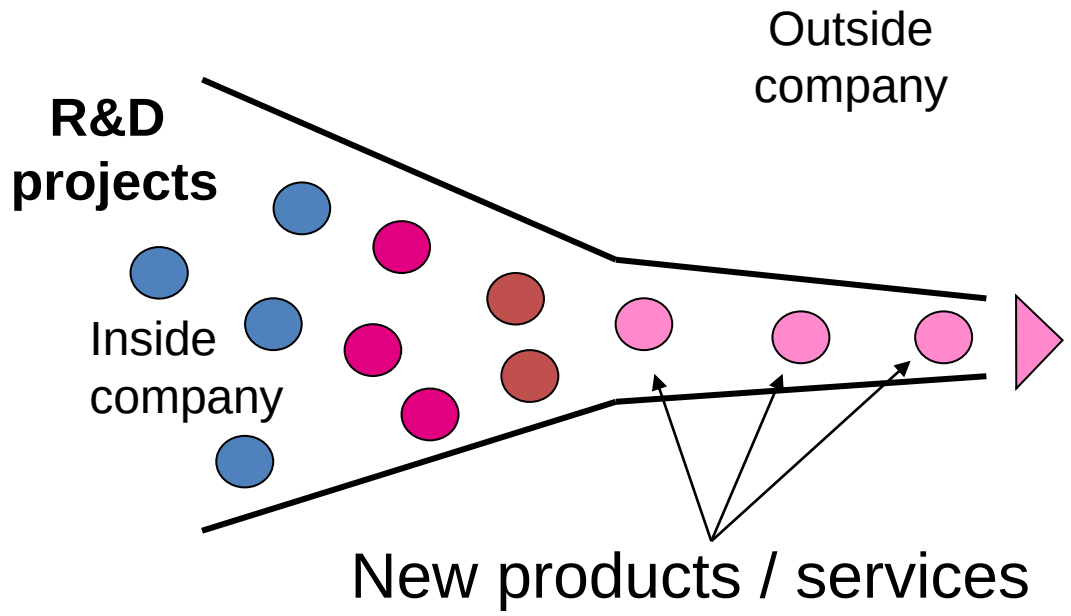
I. What is Technology Transfer?

"Technology transfer is the process of transferring (scientific) ideas / findings or technologies from one organization to another for the purpose of further development and commercialization."

Based on definition of AUTM (Association of University Technology Managers)

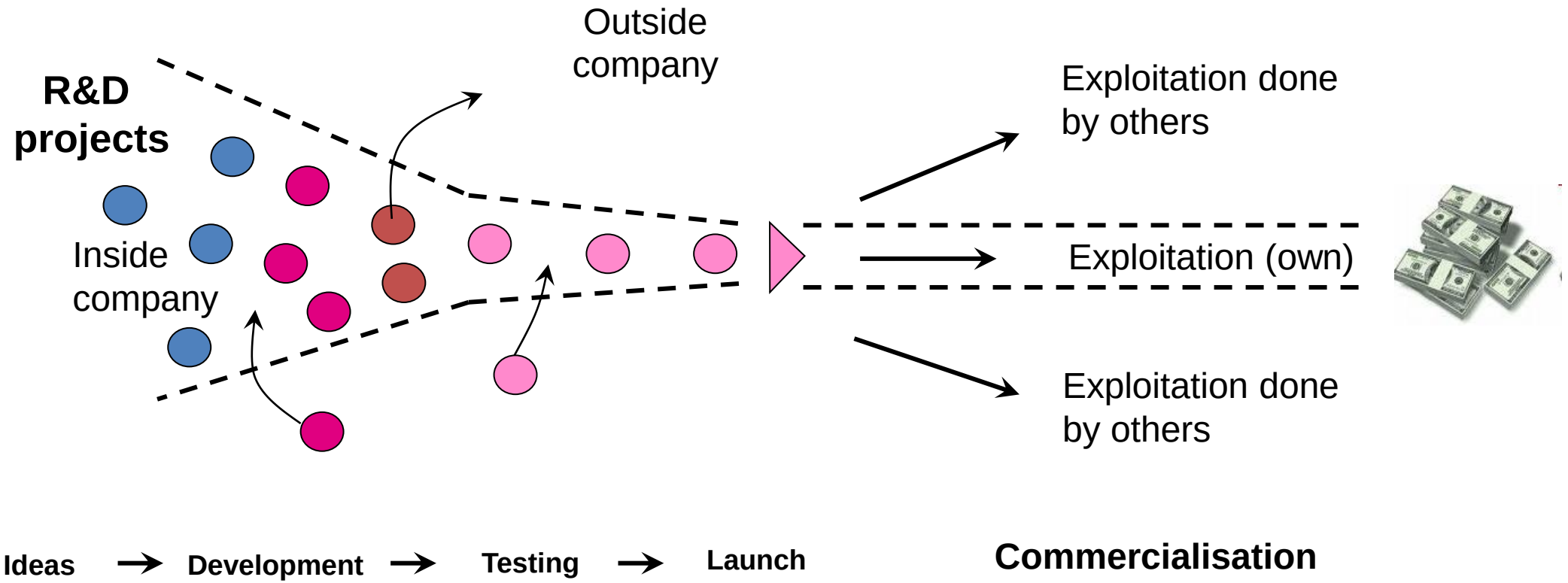
Closed Innovation



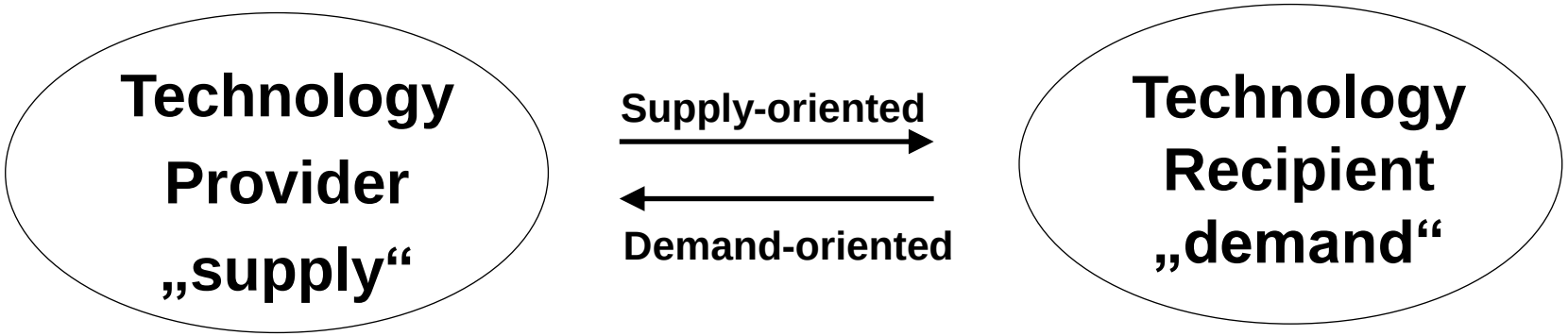
Market

Ideas → **Development** → **Testing** → **Launch**

Open Innovation



Technology - Transfer



Types of Partnership:

University	⟷	**Company**
Company	⟷	**Company**
Company	⟷	University
University	⟷	University

Examples for Technology Transfer

- Perceptual audio coding technology
  - Fraunhofer Institute for Integrated Circuits

- Formula of carbohydrates and electrolytes to stimulate fluid absorption…
  - University of Florida

- Method for rating web pages objectively and mechanically, effectively measuring the human interest and attention devoted to them
  - Stanford University

Advantages of Technology Transfer

Reasons for collaborating with a partner:

- Access a technology / know how
- Share risks / costs
- Speed up product development
- Reduce time-to-market

- Generate profits
- Access new markets
- Commercialise ideas

Barriers to Technology Transfer

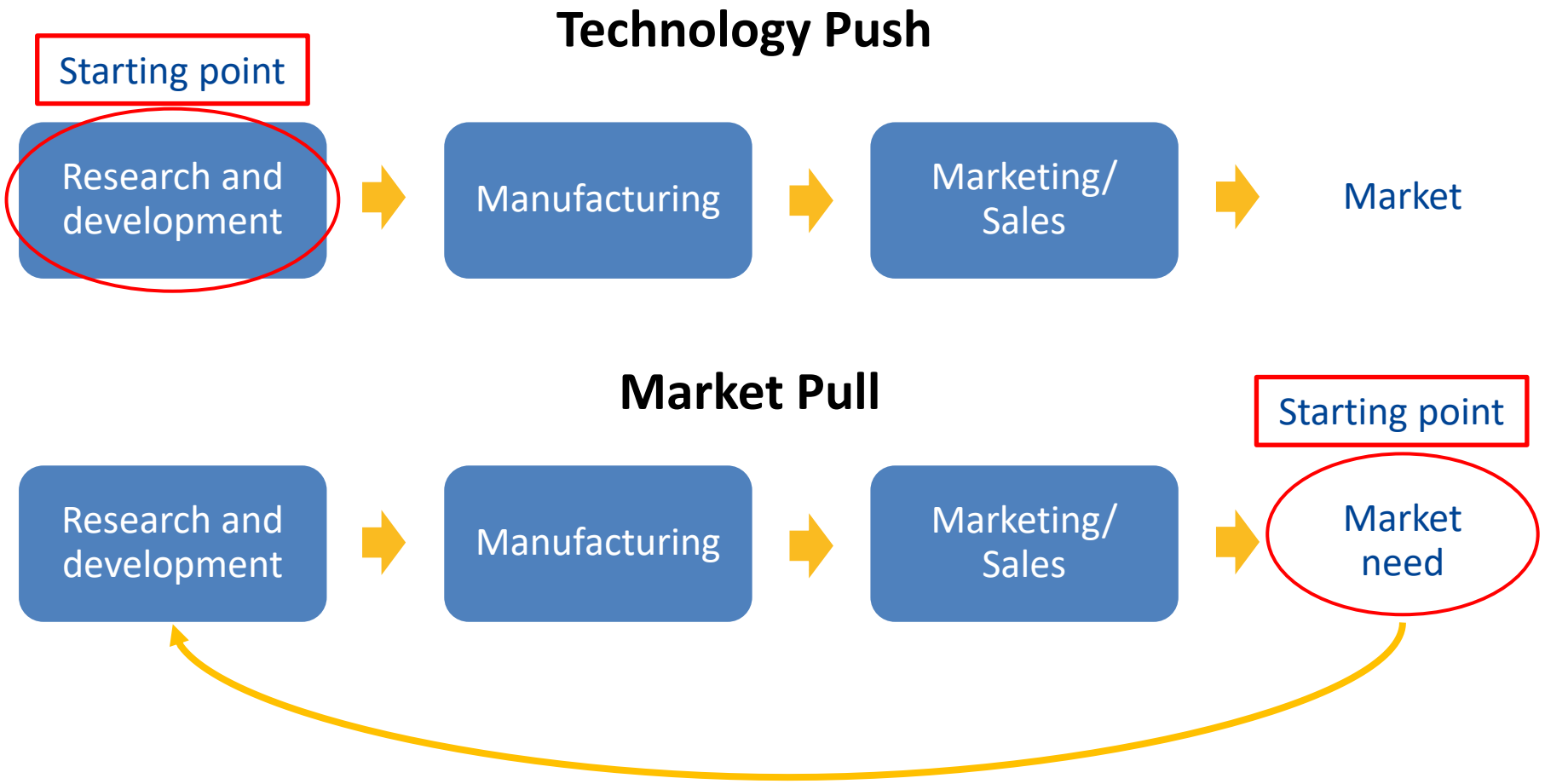
Potential problems for technology transfer:

- Missing information on available technologies / know-how
- Missing information on available potential partners
- Missing infrastructure / skills to adapt technology / know-how
- Missing funds
- Missing (common) interests
- Missing communication / trust

Why do universities engage in Technology Transfer?

- Universities can only cover first part (research) but not later stages (commercialization)
- Licensing revenue
- Regulations
- Reputation of university / researchers (attract talents and money)
- Economic development

Technology Push vs Market Pull (I/II)



Roadmap

I. What is Technology Transfer?

II. Stages of Technology Transfer

- **I. Search for technology**
- II. Screening of technology
- III. Contractualisation

III. Actors + Assistance

IV. Case Studies

Information as basis for Tech Transfer

- Challenge: lack of information:
  - Potentially relevant technology / know-how
  - Owner of potentially relevant technology / know-how

- Lack of information in 2 directions:
  - Supply-oriented: who is interested in a certain technology (recipient/demand)
  - Demand-oriented: who is offering a certain technology (offer/supply)

- Support is coming in 2 forms:
  - Tools
  - Actors

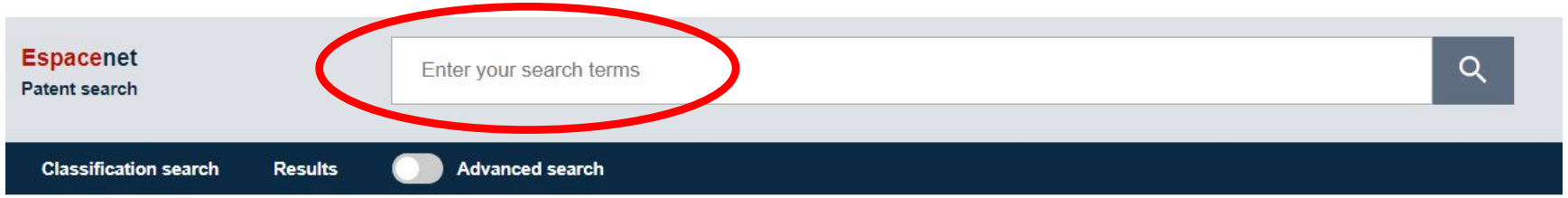
Information as basis for Tech Transfer

Finding relevant information is key

- Use specific tools to identify potential partners
- Use patent information
- Using these tools range from easy to complex (specialists available)

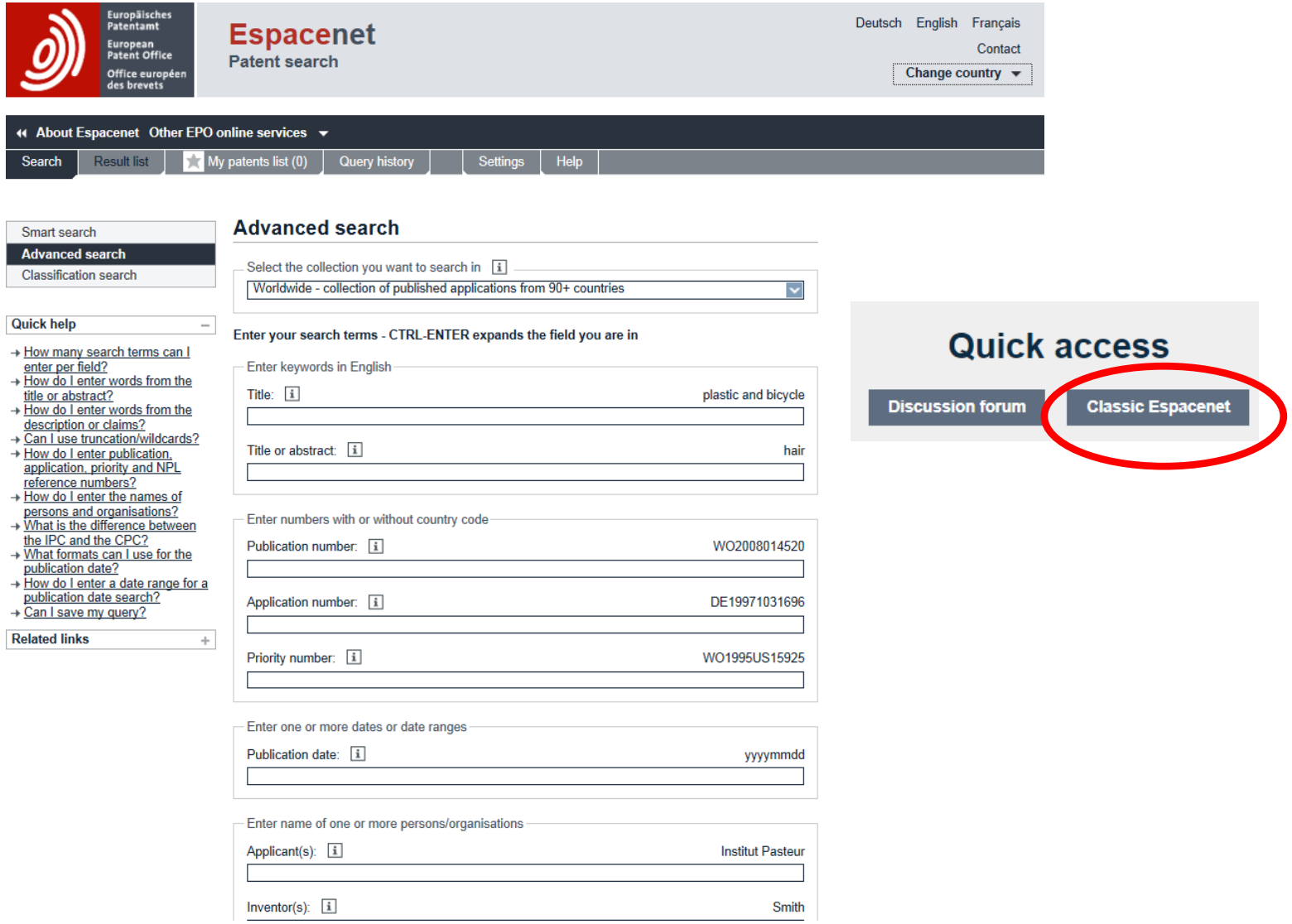
The Espacenet database (over 130 million docs)

https://worldwide.espacenet.com



Espacenet: free access to over 110 million patent documents

The Espacenet database (over 130 million docs)



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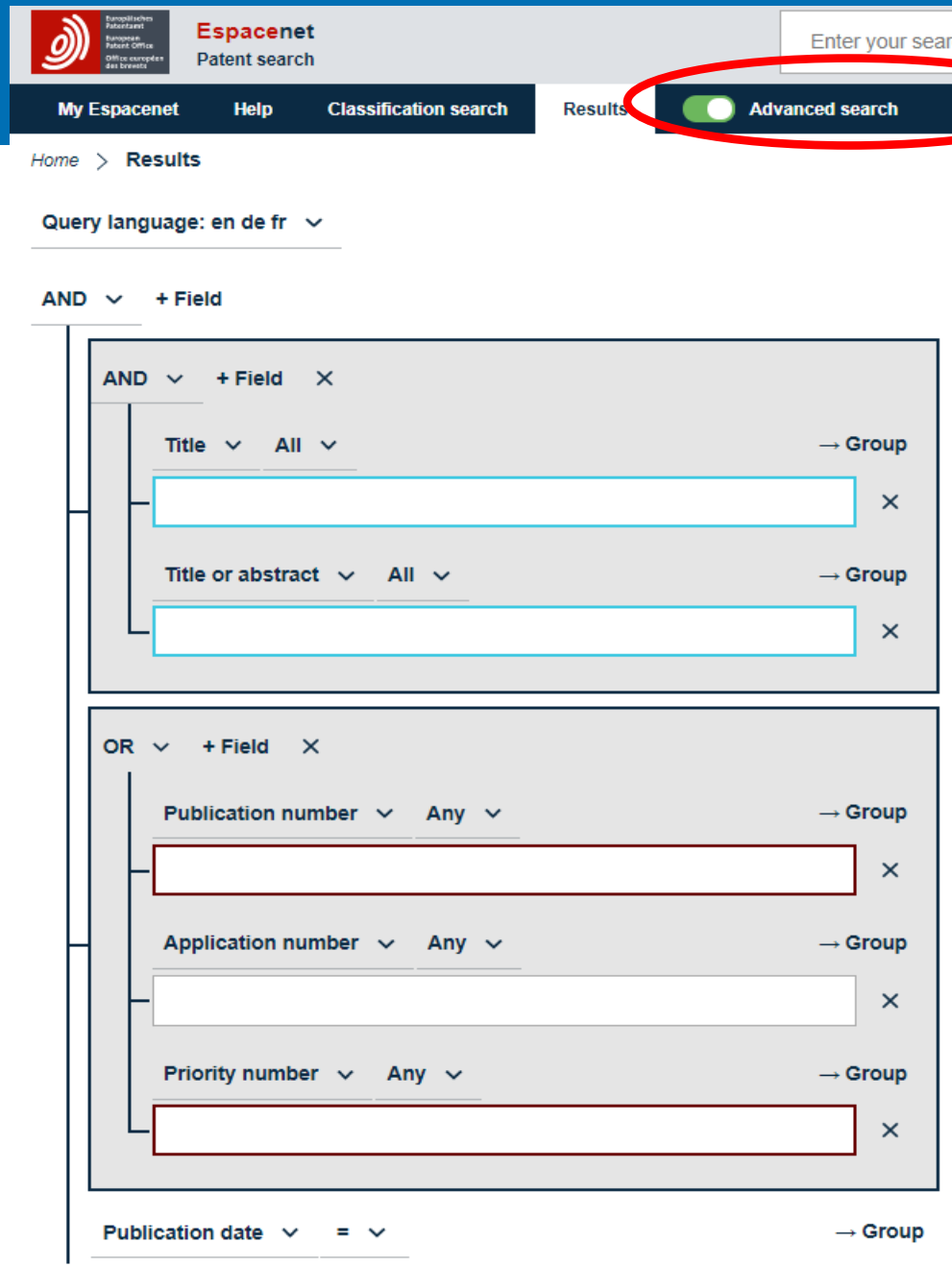

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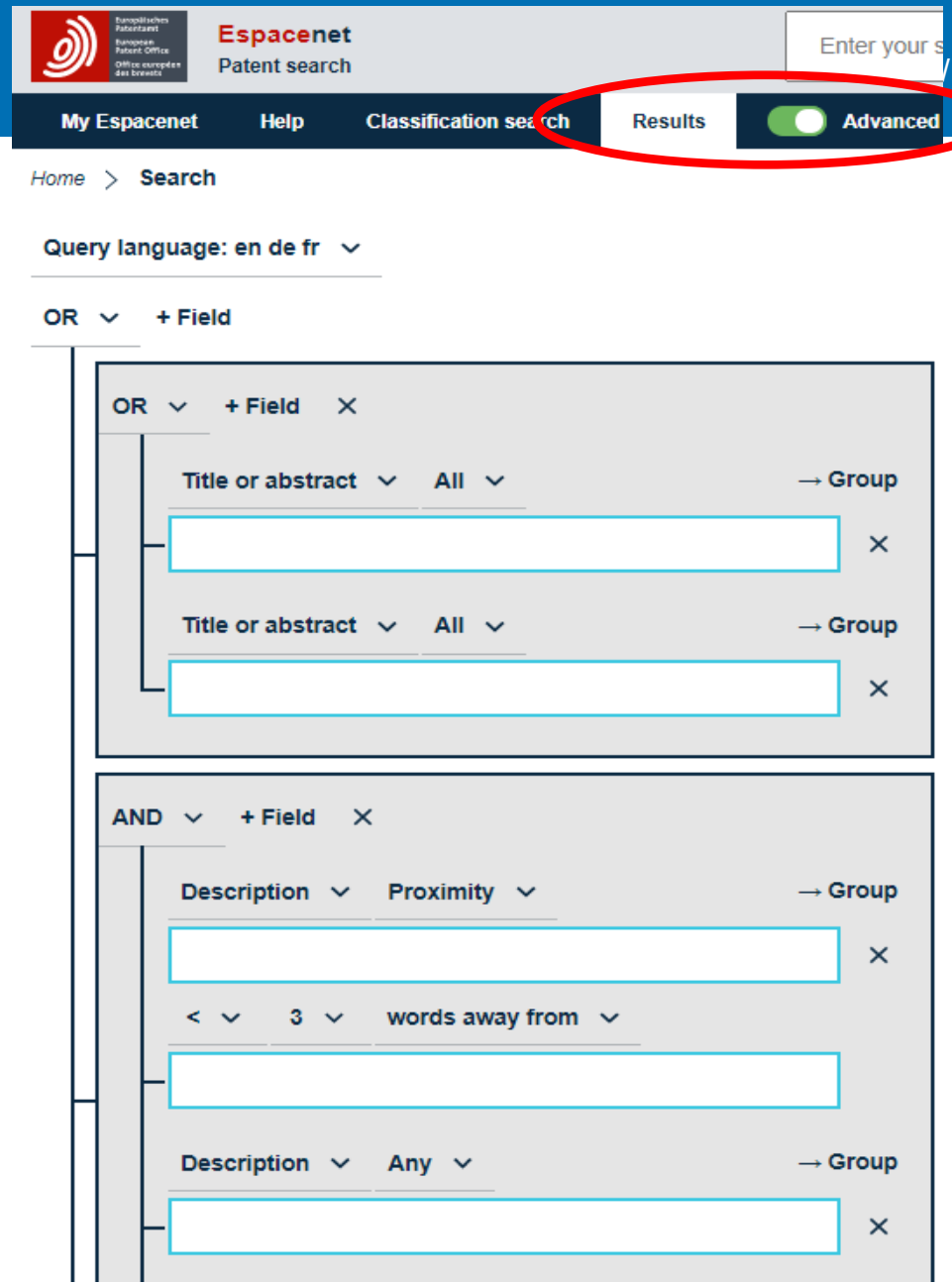
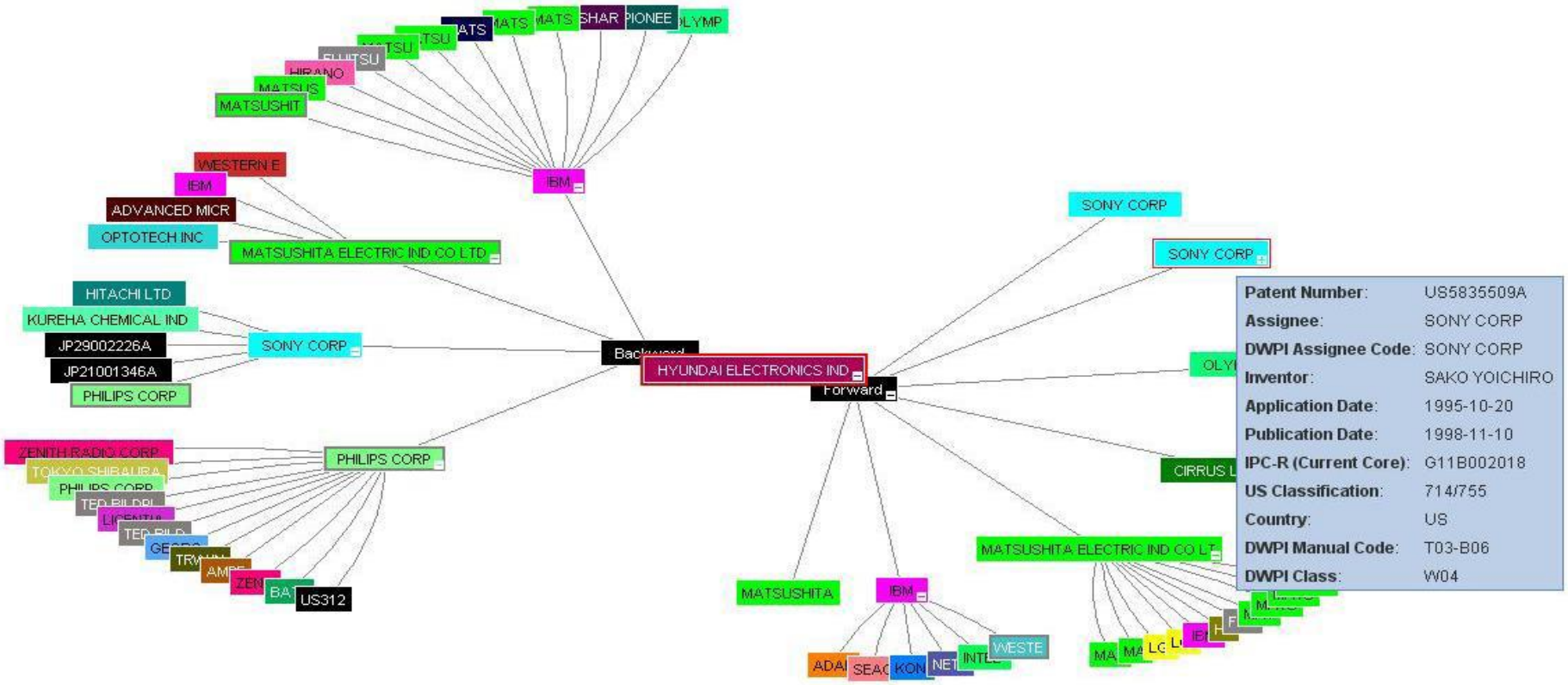


Information gathering

Example of tools: Forward and backward citations



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Screening of technology

2 main criteria for evaluation
(of potentially interesting technology for you):

1. Legal

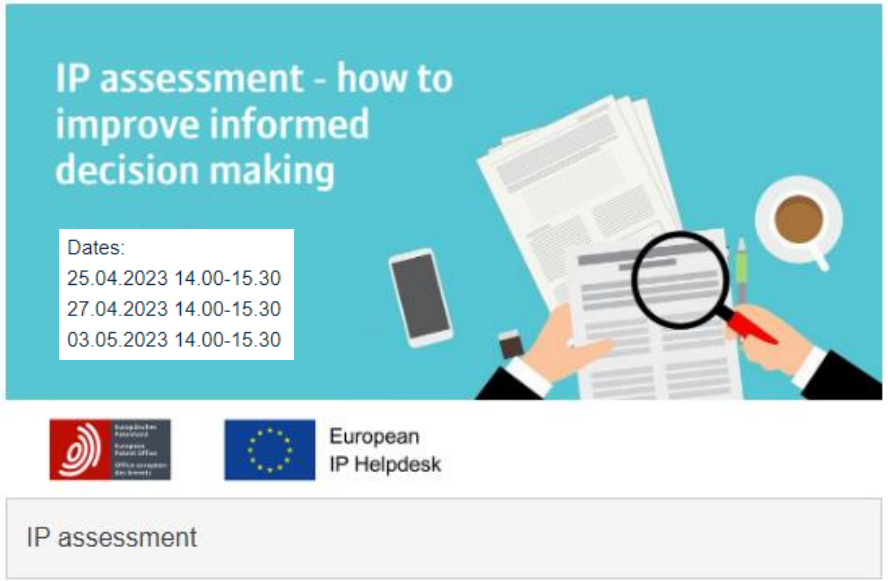
2. Market

Screening of technology

What (other) topics would you evaluate (focus: demand-side)?

- Legal
- Market
- Technology
- Finance
- Fit to business (strategy)

3-part seminar on IP-Assessment (with EPO)



Screening of technology – IP Valuation

Once a potential partner (supply or demand) has been identified, one critical step is to assess the value of a technology, through the value of intellectual assets.

Coming soon:
Webinar on IP Valuation

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- **III. Contractualisation**

III. Actors + Assistance

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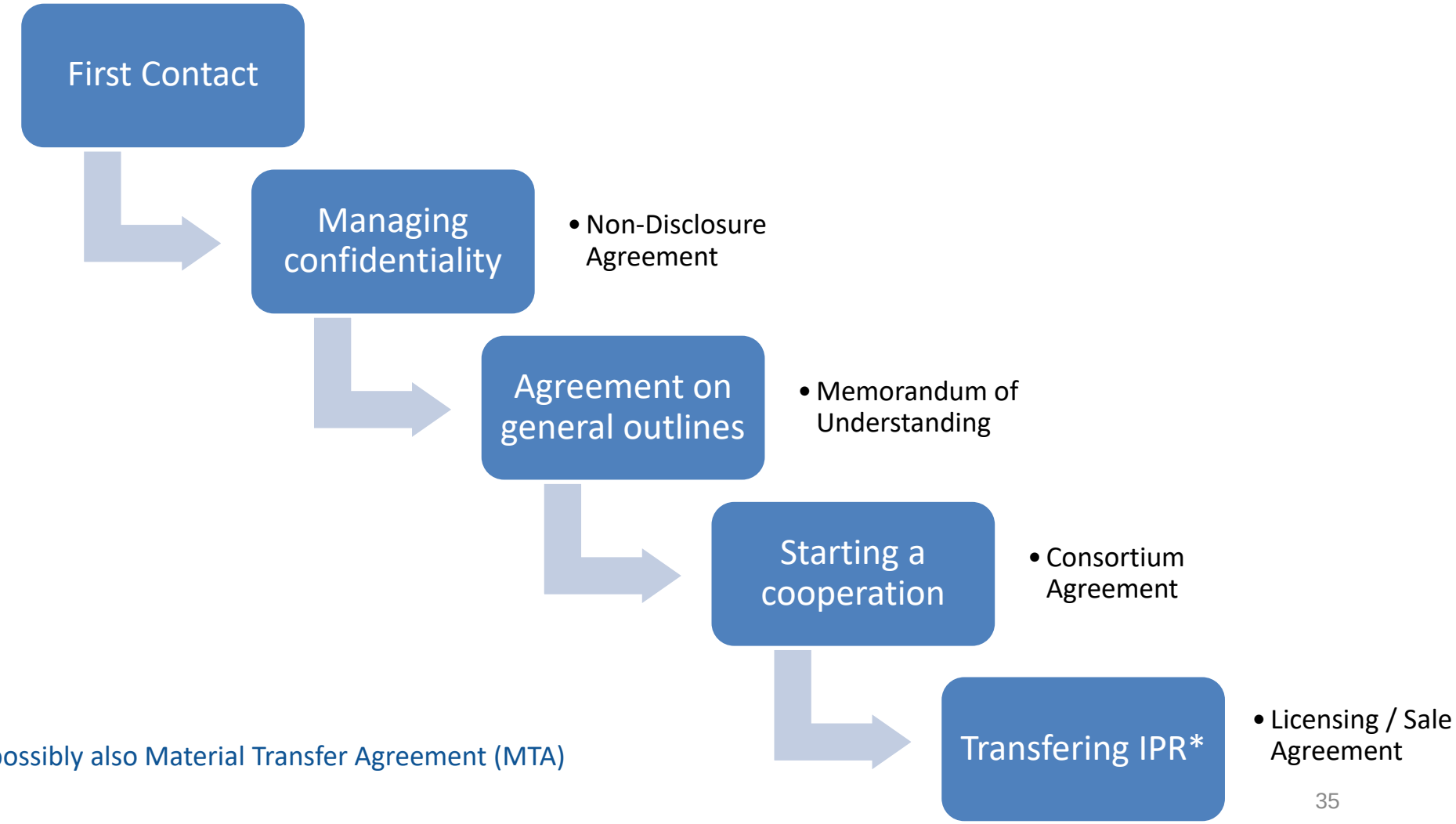
Contractualisation of a transaction



* possibly also Material Transfer Agreement (MTA)

Contractualisation of a transaction – Non Disclosure Agreement (NDA)

- Sometimes called a Confidential Disclosure Agreement (CDA)
- Legal document between two or more parties
- Agrees that information will be held confidential for a specific period of time
- Should describe how confidential information is identified, handled and stored
- Generally includes a clause about information becoming public knowledge

Contractualisation of a transaction – Memorandum of Understanding (MoU)

- Also named “Letter of Intent” (LoI)
- Documents the intent of two or more parties
- (Mostly) legally non-binding (non-legal language)
- Documents main terms (goals, roles, responsibilities, financial obligations) of negotiations
- Often first step towards final contract

Contractualisation of a transaction – Consortium Agreement

- Agreement between two or more partners to collaborate collectively
- Defines roles and responsibilities among consortium partners
- Should explicitly describe how project results (IPR) will be shared and commercialized (including responsibility)
- Should document background IP and ownership

Contractualisation of a transaction – Material Transfer Agreement (MTA)

- A legal agreement that governs the transfer of tangible materials between two organizations
- Defines the rights of the originator of the materials and ownership of any derivative works
- Usually used with biological samples (but also with material samples or chemicals)
- Can be used for transfer between universities, industrial partners or research centers

Options for transfer of IPR

- Transfer of Ownership
  - Selling IPR to other entity
  - One-time transaction
- License
  - Allowing an other entity to use IPR
  - No transfer of ownership
  - Ongoing partnership
- Spin-off
  - Part of existing organization (e.g. student of faculty of university) form a new and independent entity
  - IPR (held by existing organization) form important constituent of spin-off; therefore, access rights for IPR have to be defined

Transfer options - an IP license

- Indirect exploitation of intellectual property
- Licensing agreement: the owner of IP (Licensor) grants the Licensee the right to use the IP
- The Licensor maintains the ownership of the IP

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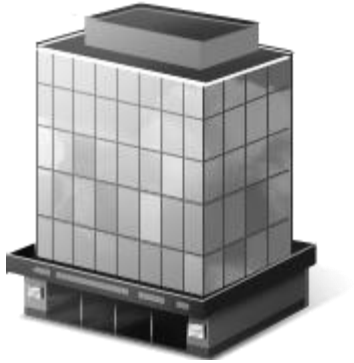
Webinar on Commercialisation and Licensing

Transfer options - an IP license

Licensor
IP owner (e.g. university, company, individual)

Permission to use IP

Payments



Licensee
(e.g. company)

Splitting rights in a partnership

A key issue…

- Determines the subsequent options for Technology Transfer
- Determines the possible profitability of the project

…But the priorities diverge:

- Academic: desire to publish, often owner of the IPR
- Industry: secrecy and commercialization; desire to be unique user of the IPR

Splitting rights in a partnership – joint ownership in IPR

No common European legal concept of joint ownership

Patents in Europe (in general)

- **Right to exploit the IP for your own benefit** without accounting to the others
- But cannot grant a licence or assign interest of the IP without the consent of the other owners

→ **You can use the IP yourself but cannot authorize others to use it without the consent by all co-owners**

Splitting rights in a partnership – manage ownership in IPR

Prior to the start of the project: Consortium Agreement

- **Definition** of the background and IPR of each partner
- **Access** to the background IPR during and after the project
- **Protection and exploitation** of the results:
  - Secrecy or patent application?
  - Who is in charge of the application, the extension and the renewal of the rights?
  - Which part of the revenues goes to which partner?

Managing ownership - conclusion

- Splitting the rights in a partnership is a crucial point
- The more you discuss and set-up the repartition of the rights in advance, the better will go on the cooperation with your partners

→ Don’t hesitate to dedicate time to discuss this issue -
it is not lost time, it ensures the future success of the cooperation

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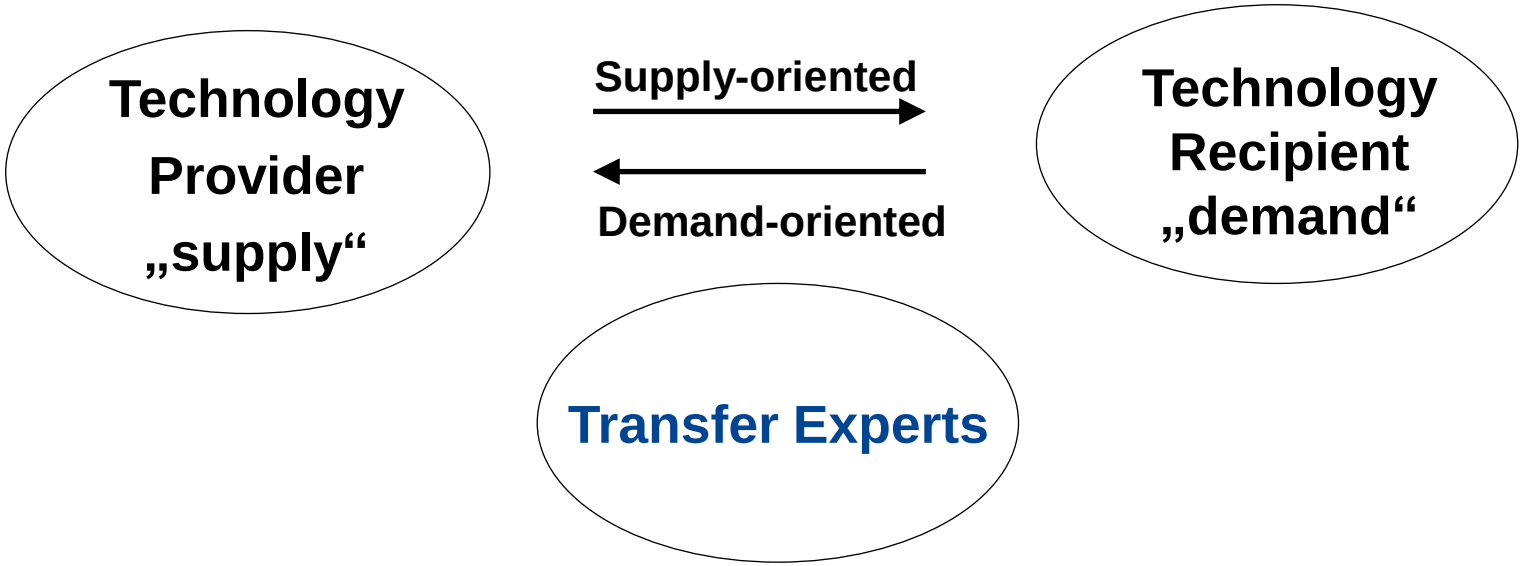
Professionals experienced in different aspects of Technology Transfer



- Technology Transfer Offices
- Regional actors
- Consulting companies
- Specific programes/service initiatives

Actors & Assistance - where can I go to get information and help?

Professionals experienced in different aspects of technology transfer can be found in …

- **Technology Transfer Offices** (University or Public Research Organisations)
- **Regional actors** (e.g. innovation centers, chambers of commerce, incubators)
- **Consulting companies** specialized in technology transfer
- **Specific programes/service initiatives** like the European IP Helpdesk

Technology Transfer Office

- Typically a (small) office set up by a university or research center to manage the protection and commercialization of technologies developed by its staff (supply oriented)
- Will usually perform technology marketing and licensing activities
- May also support start up efforts. Some TTOs may even manage seed capital funds

Regional actors (Innovation Center, Technology Park or Incubator)

- Typically established by a region / state to foster innovation and support public /private research initiatives
- Principally concerned with connecting actors with resources and the communication of new technology opportunities
- May have experts available to provide advice (development of business plans, start up funding, etc.) but usually does not work with very early stage technologies

Consulting company

- May have been created by university or research organization (spin-out) or established by former university TT managers
- Usually staffed with specialists who have different technical backgrounds (scientific expertise, IP expertise, business development, etc.)
- Usually offer full range of services (IP protection, market assessment, marketing, etc.), can work demand-oriented
- Will generally receive some type of compensation upon signing of successful license agreement

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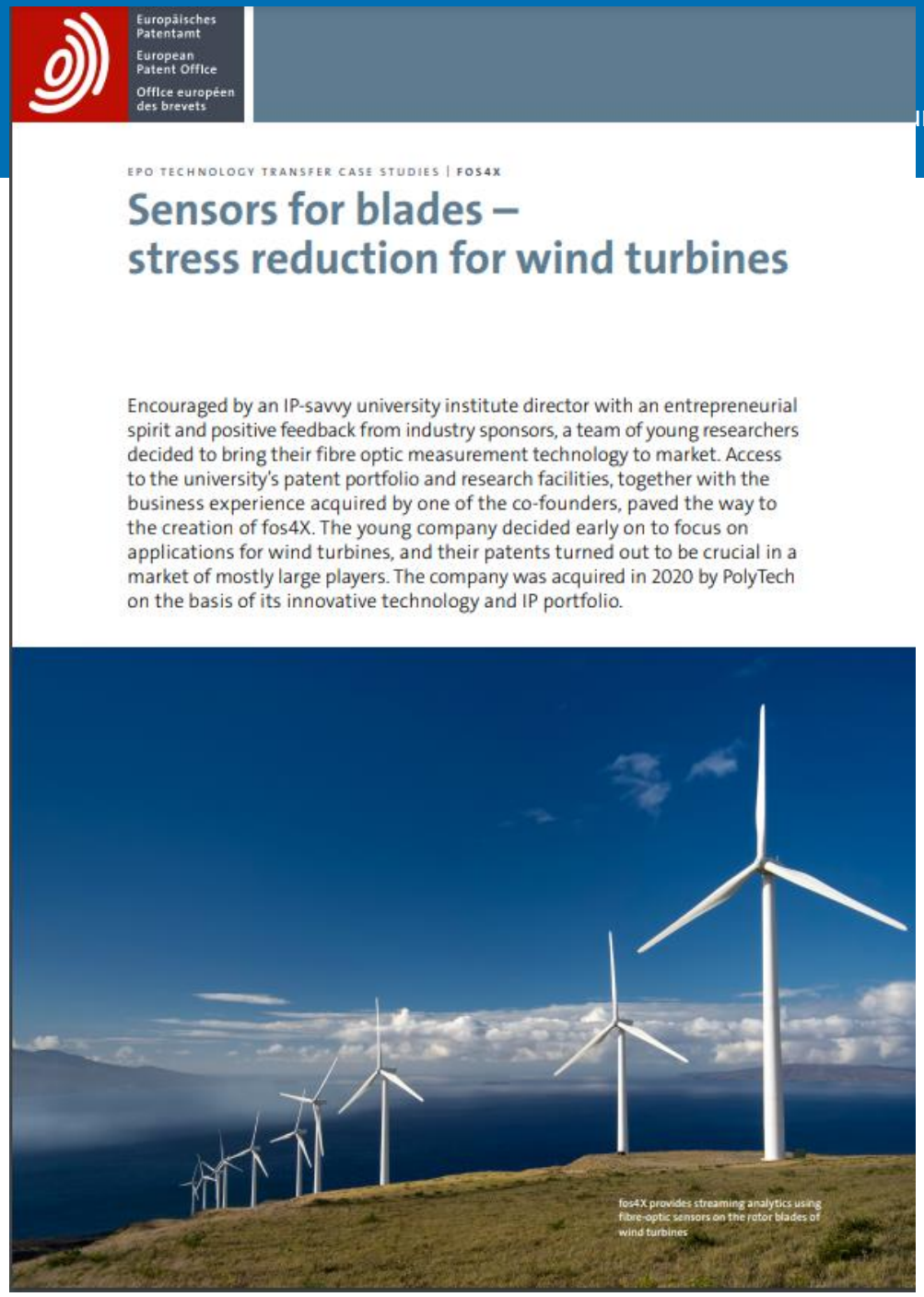
Case study: fos4x (TTF case studies)

https://www.epo.org/learning/materials/sme/innovation-case-studies/technology-transfer-case-studies_de.html



Europäisches Patentamt
European Patent Office
Office européen des brevets

EPO TECHNOLOGY TRANSFER CASE STUDIES | FOS4X

Sensors for blades – stress reduction for wind turbines

Encouraged by an IP-savvy university institute director with an entrepreneurial spirit and positive feedback from industry sponsors, a team of young researchers decided to bring their fibre optic measurement technology to market. Access to the university's patent portfolio and research facilities, together with the business experience acquired by one of the co-founders, paved the way to the creation of fos4X. The young company decided early on to focus on applications for wind turbines, and their patents turned out to be crucial in a market of mostly large players. The company was acquired in 2020 by PolyTech on the basis of its innovative technology and IP portfolio.

Case study: Orcan Energy (SME case studies)

https://www.epo.org/learning/materials/sme/sme-case-studies.html

Europäisches Patentamt
European Patent Office
Office européen des brevets

EPO SME CASE STUDIES | ORCAN ENERGY

Recycling waste heat to cool down the planet

A renewable energy company founded in 2008, Orcan Energy offers standard components for heat power generators that recycle waste heat by turning it into electricity, using the Organic Rankine Cycle (ORC), a process similar to that used in steam engines. Having started as a spin-off from the Technical University of Munich (TUM) in Germany, Orcan now has 65 employees. Patents are important, because the risk of Orcan's standard components being copied is high. Eight early patents were filed by the TUM and then subsequently acquired by Orcan. Ownership of these patents was vital in order to attract funding. Orcan co-operates with other companies, but simplifies patent management by avoiding joint ownership. It has a detailed patent protection strategy and understands when to file a patent application and where to file it.

Orcan Energy's compact ORC module offers up to 25 kW of electrical power. Stacks of two or more modules can be used where needed, depending on the customer's waste energy output.

Waste Heat

Sources:

- Industrial applications
- Stationary and marine power systems
- Combined heat and power (CHP) units
- Renewable power plants (biogas, solarthermal, geothermal

Waste Heat: equivalent of 100 mio liters of diesel produced every hour across the globe!

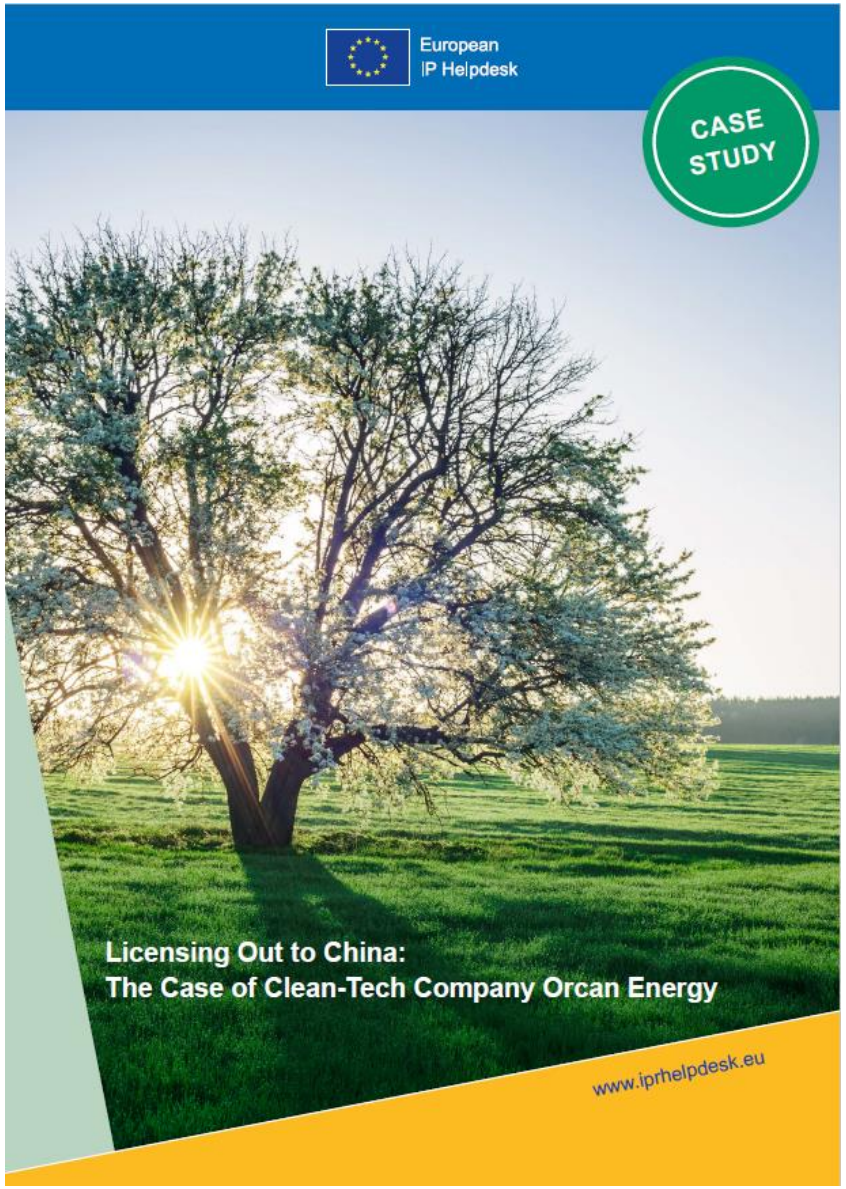
orcan
Efficiency Company

Update

Case study II: Orcan Energy

http://iprhelpdesk.eu/news/case-study-orcan-energy

https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-case-studies_en



Contact us!

- www.ec.europa.eu/ip-helpdesk
- service@iprhelpdesk.eu
- Twitter @iprhelpdesk
- LinkedIn /european-ipr-helpdesk

Thank You!

DISCLAIMER

The European IP Helpdesk provides free-of-charge first-line support on IP-related issues aiming to help current and potential beneficiaries of EU-funded projects, as well as EU SMEs, manage their Intellectual Property assets.

The European IP Helpdesk is managed by the European Commission's European Innovation Council and SMEs Executive Agency (EISMEA), with policy guidance provided by the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG Grow).

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