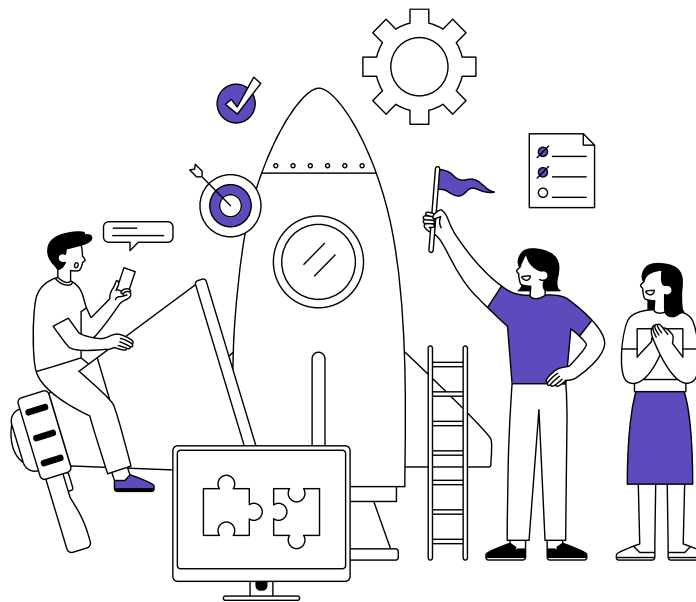




Team Up 2025

Intellectual Property

September 9, 2025



Examples of Intellectual property in Agri-Food

Gene-Edited Crops:

Patents on CRISPR-Cas9 gene editing techniques have enabled the development of crops with enhanced traits like disease resistance, improved nutritional content, and better shelf life.

Plant-Based Meat:

Novel food processing techniques and formulations for creating meat-like products from plant proteins have been patented by companies like Beyond Meat and Impossible Foods. These innovations have helped drive the growth of the alternative protein market.

Precision agriculture drones:

Patented drone technologies equipped with multispectral sensors and AI-powered image analysis software allow farmers to monitor crop health, optimize irrigation, and apply targeted treatments.

Sustainable Production Solutions:

Vertical farming systems are patented technologies for growing crops in vertically stacked layers. They have revolutionized urban agriculture. These systems often incorporate automated lighting, irrigation, and climate control to maximize yields in limited spaces.



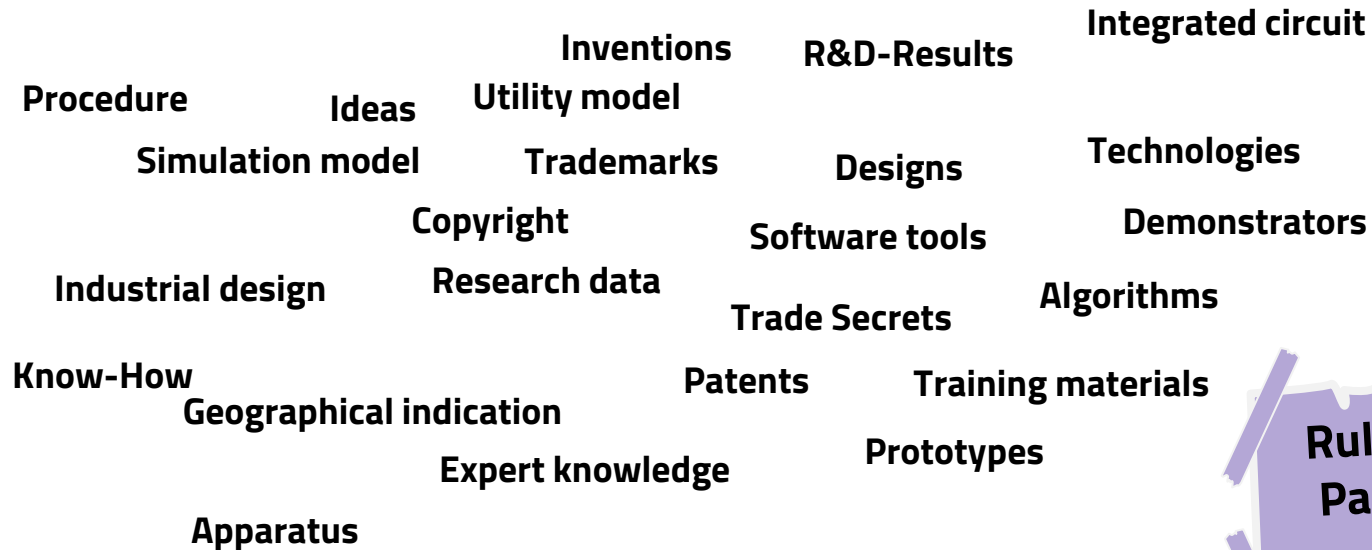
Intellectual property (IP) refers to **creations of the mind**, such as inventions; literary and artistic works; designs; and symbols, names and images **used in commerce**.



World Intellectual Property Organization (WIPO)

Intellectual Property encompasses much more than just patents

Forms of Research-Based Intellectual Property (IP)



**Rule of thumb:
Patent before
Publish**

Trademark concerns original works and is acquired automatically while copyright is used for e.g. brands and must be registered and paid for

Trademark (™, SM, ®)

- Protects **original works** of authorship that are fixed in a tangible medium of expression in a wide array of creative, intellectual, or artistic forms
- Key point: Copyright protects the **expression of an idea**, not the idea itself
- Protection is automatic as soon as an original work is created and fixed in a tangible medium
- Protection lasts typically for the life of the author plus 70 years after their death
- Grants the owner exclusive rights to reproduce, adapt, distribute, perform, and display the work

VERSUS

Copyright (©)

- Protects **brand names, logos, slogans**, and other source identifiers that distinguish the goods or services of one party from those of others in the marketplace
- Key point: Trademarks **identify the source of goods or services**
- Protection is acquired by registering a trademark with the relevant government office
- Protection last indefinitely as long as the mark is used in commerce and renewal fees are paid
- Grants the owner exclusive rights to use the mark for its registered goods or services

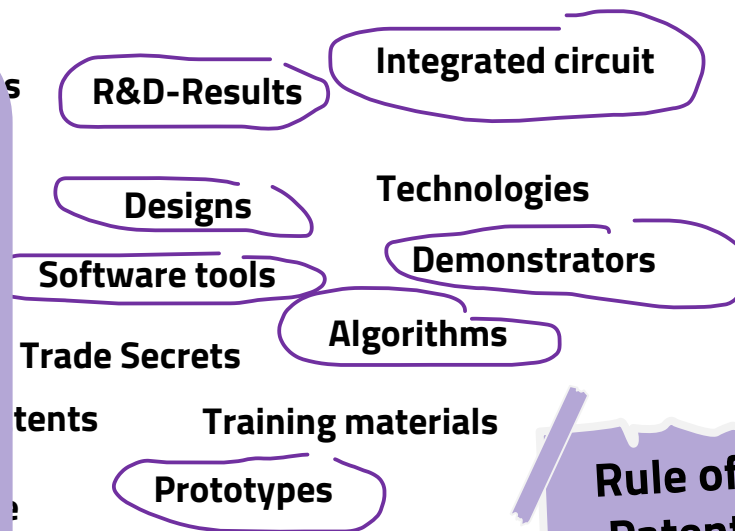
A single item can have both copyright and trademark protection (e.g., logo as an original artistic design)

Intellectual Property encompasses much more than just patents

Forms of Research-Based Intellectual Property (IP)

Novelty destroying

- Paper, poster, and conference abstracts
- Internet (e.g. home Slide, pre-print-server)
- PhD and diploma thesis
- Oral presentation (even in an institute seminar if it is open to the public!)
- Distribution of material and prototype on trade fair
- ...



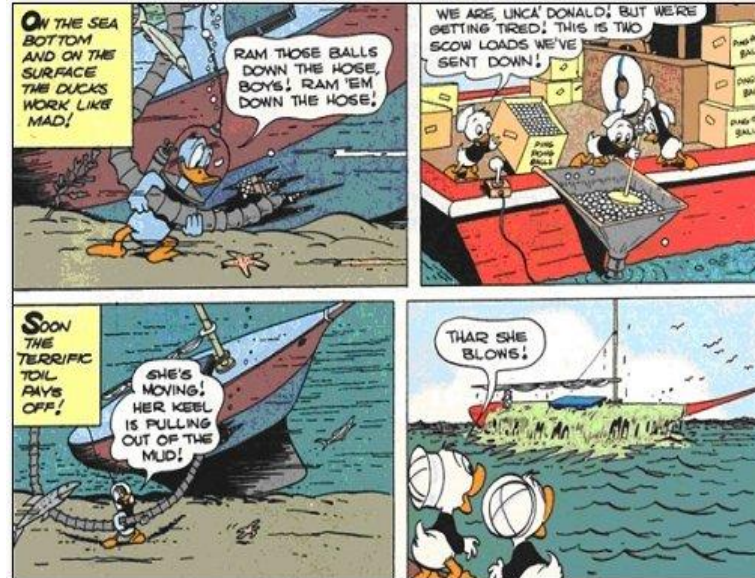
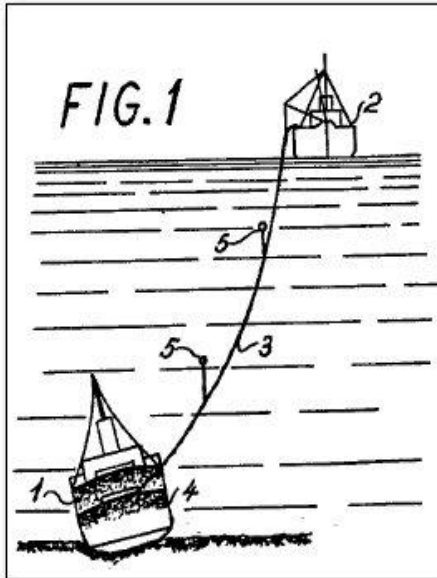
**Rule of thumb:
Patent before
Publish**

Novelty destroyed by Donald Duck!

Example

1964 Karl Kroyer designed a ship-raising technique that involved filling the vessel with small, buoyant balls injected through a tube

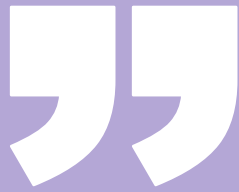
The Dutch patent examiner found novelty destroying state of the art, published **1949**



Rule of thumb:
Patent before
Publish



A patent



A patent is an **exclusive right** granted **limited period of time** by a state for an invention, which is a **product or a process** that provides, in general, a **new way of doing something**, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be **disclosed to the public** in a patent application.

Multiple ways to protect your IP

Legal Protection	Factual Protection	
Patent	Trade secret	Just do not talk about it
Utility Model	Know-how	animal models; protocols
Industrial design rights		
Copyright		
Trademark		
Geographical indication		



IP can have **more than one owner**; it can **belong** to **people** or **businesses** and it **can be sold**, licensed or transferred.

Direct and indirect benefits from IP protection

Selected reasons for investing in intellectual property rights

Increasing
visibility
within a field



"Advertising"
for commercial
exploitation



Strengthening
profile in focus
area



Enhance
resume for later
career



Fulfilment of
research policy
expectations



Preparatory
work to acquire
public subsidies



Potential
monetary
returns



Industrial
Cooperation



Basis for
research-
related spin-
offs



Freedom to
determine

Consider carefully before filing an invention disclosure



Inventors



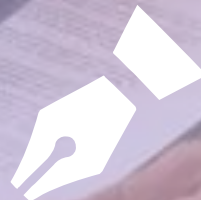
**Invention
description**



% Contribution



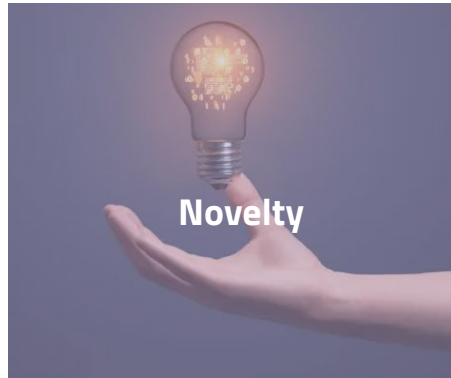
3rd Parties



Publications

When to file for a patent?

Which preconditions must be met for a patent?

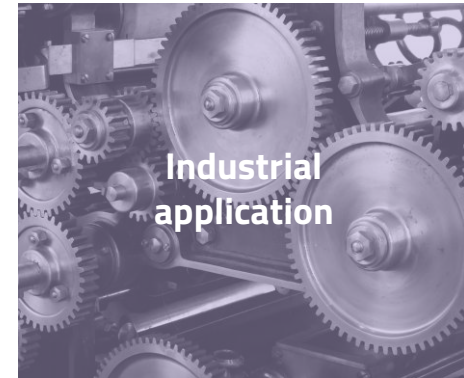


The invention does not form a part of the state of the art

(State of the art includes all knowledge which was 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 patent application)



The invention shall be considered as involving an inventive step if it is not obvious to a person skilled in the art



An invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry

Deadlines in patent management

Invention disclosure

Priority Date

Filing of the patent application substantiating priority

After 12 months

End of the period for international extension of the patent ["Priority year" = extension of the patent to other nations]

After 18 months

Patent disclosure: Publication of the patent application 18 months after filing, regardless of whether the patent has been approved

A patent can only be granted if ...

- (1) the examination for manifest errors of form was negative
- (2) the official request for examination has been made (and paid)
- (3) any resulting defects have been remedied and
- (4) the request for examination was granted

Year 2 to 7

From the 3rd Year

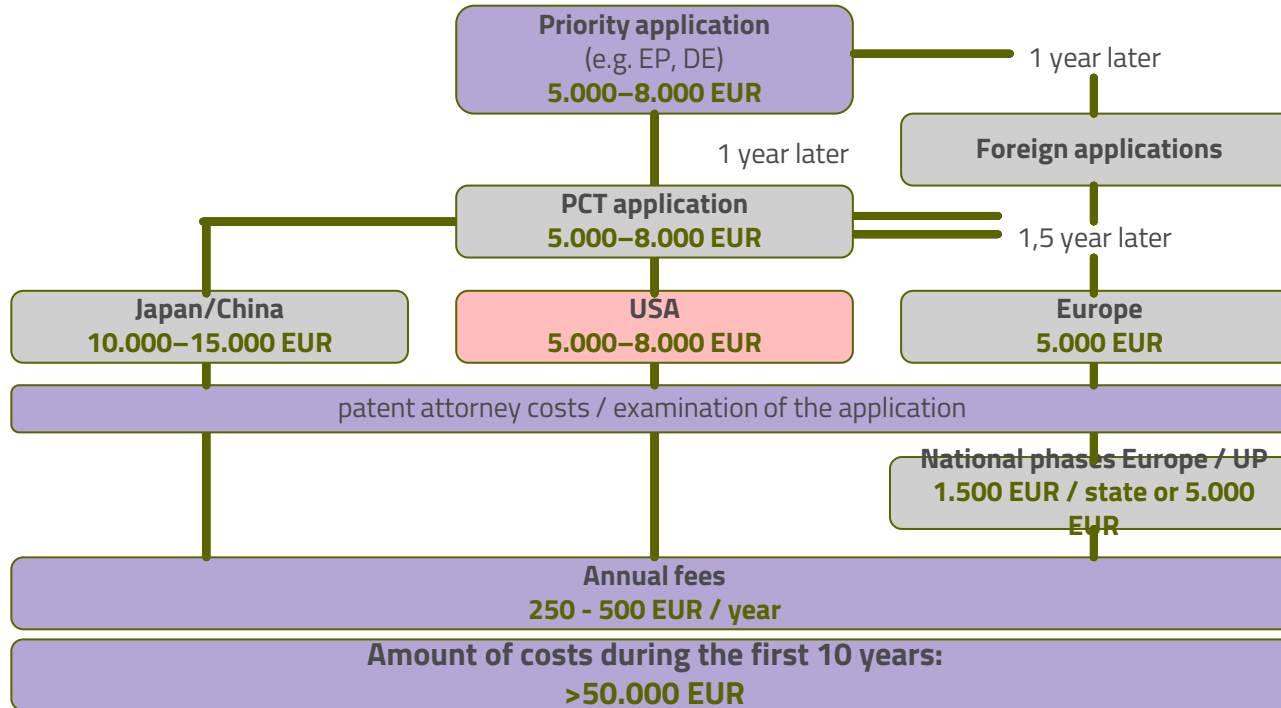
Start of the annual fee payments [fees increasing staggered; expiration of the patent if payment is not made on time]

After 20 Years

Expiration of the patent [maximum term of patent protection]

Despite a comparatively inexpensive German application, patents with wide international coverage cost upwards from 50.000 Euros

Patent cost estimation



* UP: (European) Unitary Patent

During the filing phase, complying with your institution's procedures is key for a good start into the patenting process

Patent process: Filing Phase

Contact Transfer & Service



Filing Phase

Priority Phase 12m

Patent Cooperation Treaty (PCT) Phase 18m

What to do

Contact transfer office

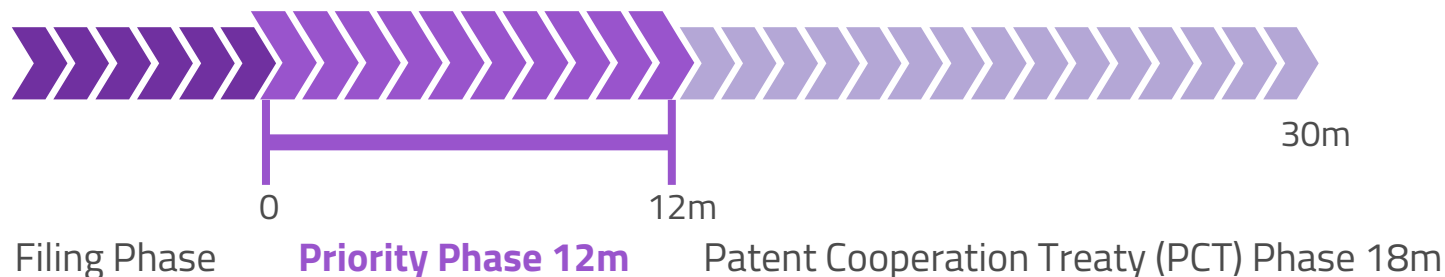
What **NOT** to do

Publish! (oral or written)

AFTER FILING: publish, if inevitable – it might still be advisable to wait

During the priority phase, your application is not publicly disclosed and data can still be added to improve claims

Patent process: Priority Phase



What to do

- Support still speculative claims experimentally (Inventor)
- Amend the application (Inventor + PA*)
- Write final patent application (Inventor + PA*)

Remember

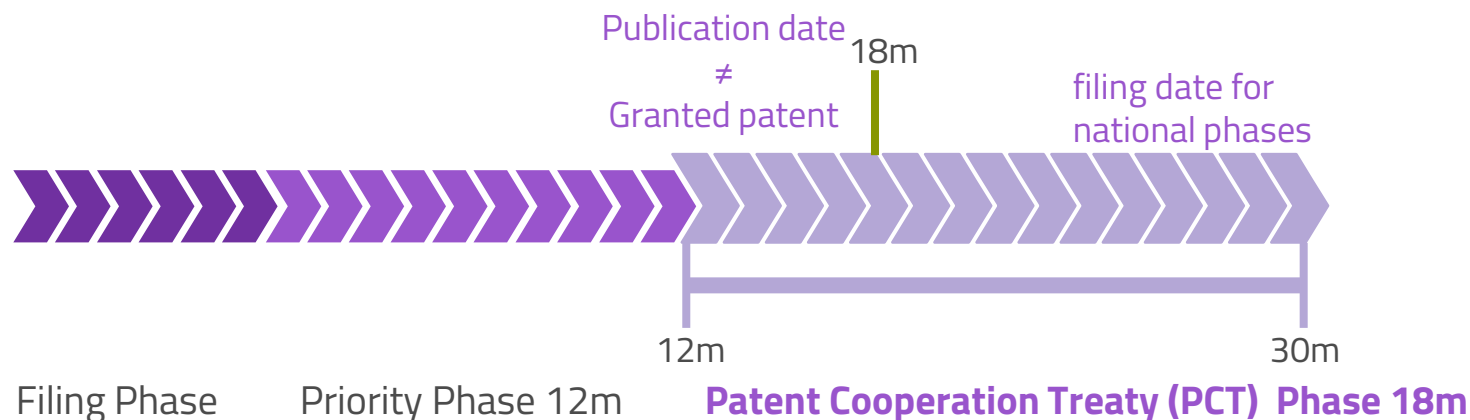
- Publications possible
- Data can be added
- Priority date !!!!

AFTER FILING: publication of data that have been filed in the patent application

*(PA) patent attorney

The PCT phase opens up the opportunity to internationalise the patent application. Licensing activities usually start here

Patent process: PCT Phase



What to do

- Licensing activities (organisation)
- Further support claims experimentally (Inventor)
- Decide on filing for National Phases (if, where) (organisation, Licensee)



Remember

- Publications possible, no further data.....
- Broad territorial coverage
- Can be withdrawn before publication

ANY TIME: publication of data that have been filed in the patent application

Market-relevant countries like UK and Spain are not taking part in the unitary patent agreement

Unitary Patent

-  Taking part
-  Not taking part



Some additional topics to consider when dealing with Patents

Patents

Software Patents

From a technical point, your software may be patentable (1) if it improves computer functionality in some way (i.e. it enables certain computations that were previously unavailable, speeds up processes, or requires fewer resources), or (2) if it solves a computing challenge in an unconventional way.

When is it reasonable to file for a Patent?

- Is enforceability possible?
- Does it have commercial potential?
- Is it a Patent or Know-how?
- What is the Patent strategy (territorial, temporal)?
- Consider Differences US vs. EP (grace periods)

A hand in a dark suit sleeve holds a glowing lightbulb. The lightbulb is surrounded by a futuristic digital interface with concentric circles and a central sun-like icon. The background is dark with a network of white lines and dots, suggesting a digital or technological theme.

Dealing with intellectual property

Licensing

License agreements

Basic issues

Types of licence agreements

- Patent licensing agreements
- Know-how license agreements
- Copyright contracts
- Software license agreements
- Open Source license agreements

Scope of the right of use

- **Simple right of use**
Licensee obtains right of use; rights holder can, however, grant the same rights of use to any number of other persons
- **Exclusive right of use**
Licensee obtains exclusive right of use for type of use, territory, etc.

Licensing models

- Flat-rate licences
- Quota licences
- Sales license
- Profit licences

Scope of a license

- **Geographical**
Licence is only granted for a certain area, e.g. Germany
- **Temporal**
License is limited in time, e.g. to one year
- **Content**
License is limited to a certain type of use, e.g. quality control only

License agreements

Elements of a licensing agreements



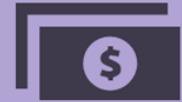
Description of IP
and definitions



Reach and
scope of the IP



Duties of the
Licensee



Payment
modalities



Tracking and
enforcement of IP



Assignment of
rights to 3rd parties



Duration and
termination of IP



Jurisdiction
agreement

Potential licensees should be carefully evaluated according to pre-defined criteria

Essential evaluation criteria of a licensing partner

- 01 **Proximity** of the business activity of the potential partner **to the technology** in focus
- 02 **Availability** of resources (technological, human and financial)
- 03 Market **access** (thematic, geographical)
- 04 Engagement of **decision-makers** in the company
- 05 **Importance** of the cooperation for the partner
- 06 **Willingness** (even without public funding) to invest in long-term cooperation
- 07 Common **understanding** on, scope, division of tasks, time and cost requirements for further developments
- 08 **Revenue** achievable with potential partner on time axis (probability of entry)
- 09 Exchange **relationship** for the mutual benefit of both parties
- 10 **Opportunity** to establish a longer-term strategic partnership
- 11 Influence of cooperation on cooperation with **other** attractive partners
- 12 Personal "**chemistry**" between the key people

EXERCISE

Team work in breakout rooms

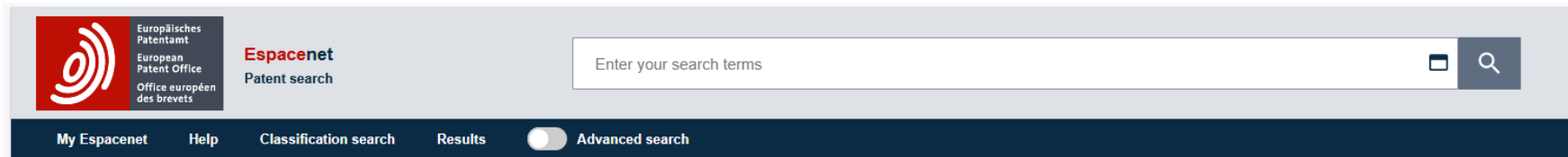


Search with tools – Espacenet / Google Patents

Create your list of patents, that are based on your keywords

ctxt = "word" AND ctxt = "word" AND ctxt = "word" AND ctxt = "word"

Number	Title	Publication Date	Description



The image shows the top navigation bar of the Espacenet website. On the left is the logo of the European Patent Office (EPO) with text in German, English, and French. Next to it is the 'Espacenet Patent search' logo. A search bar contains the placeholder text 'Enter your search terms' and a magnifying glass icon. Below the search bar is a dark blue navigation bar with links for 'My Espacenet', 'Help', 'Classification search', 'Results', and 'Advanced search' (which has a toggle switch).

<https://worldwide.espacenet.com/>

AI Search: Landscape

Expand your landscape knowledge and find other patents based on the ones you identified

Prompt:

Identify patents based on the following keywords and concepts: **xxx**.

Please generate information on the overall market landscape of this technology field as well.

What are the most relevant patents from the last 5 years?

Include sources as links.



perplexity

<https://www.perplexity.ai/>



ChatGPT

<https://chatgpt.com/>

Gemini

<https://gemini.google.com>

AI Search: Ownership

Refine your understanding of relevant
market players
– who owns specific prior art?

Prompt:

Identify the owner of following patent(s):
xxx.

Do they license the technology to
someone else?

Include sources as links.



perplexity

<https://www.perplexity.ai/>



ChatGPT

<https://chatgpt.com/>

Gemini

<https://gemini.google.com>

AI Search: Products

Get an understanding on product landscape – are there any competing products protected by IP?

Prompt:

Are there any products based on the following patent(s): **xxx**?

Is there any further market information on these products available?

Include sources as links.



perplexity

<https://www.perplexity.ai/>



ChatGPT

<https://chatgpt.com/>

Gemini

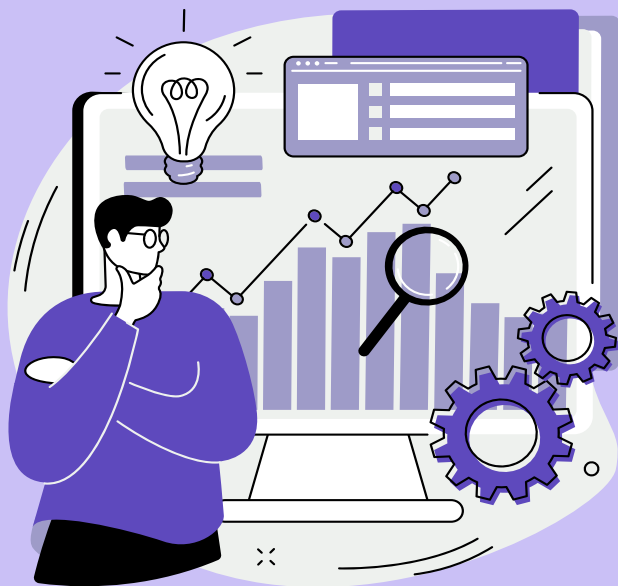
<https://gemini.google.com>

EXERCISE

Team work in breakout rooms

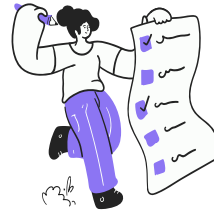
We met again at 18:15h CET





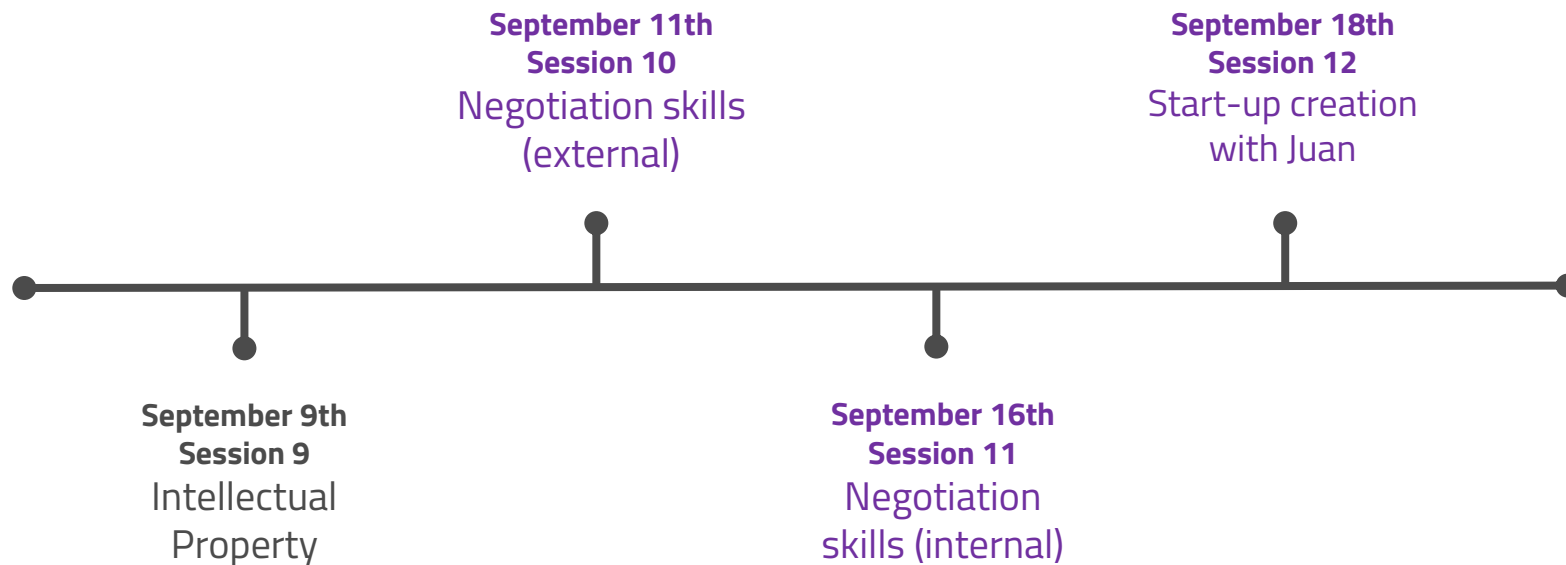
DO YOU HAVE ANY
QUESTIONS?

Next Steps



- Reach out to coaches and schedule appointments
- Prepare questions for the session with startups on 18th September

Sessions



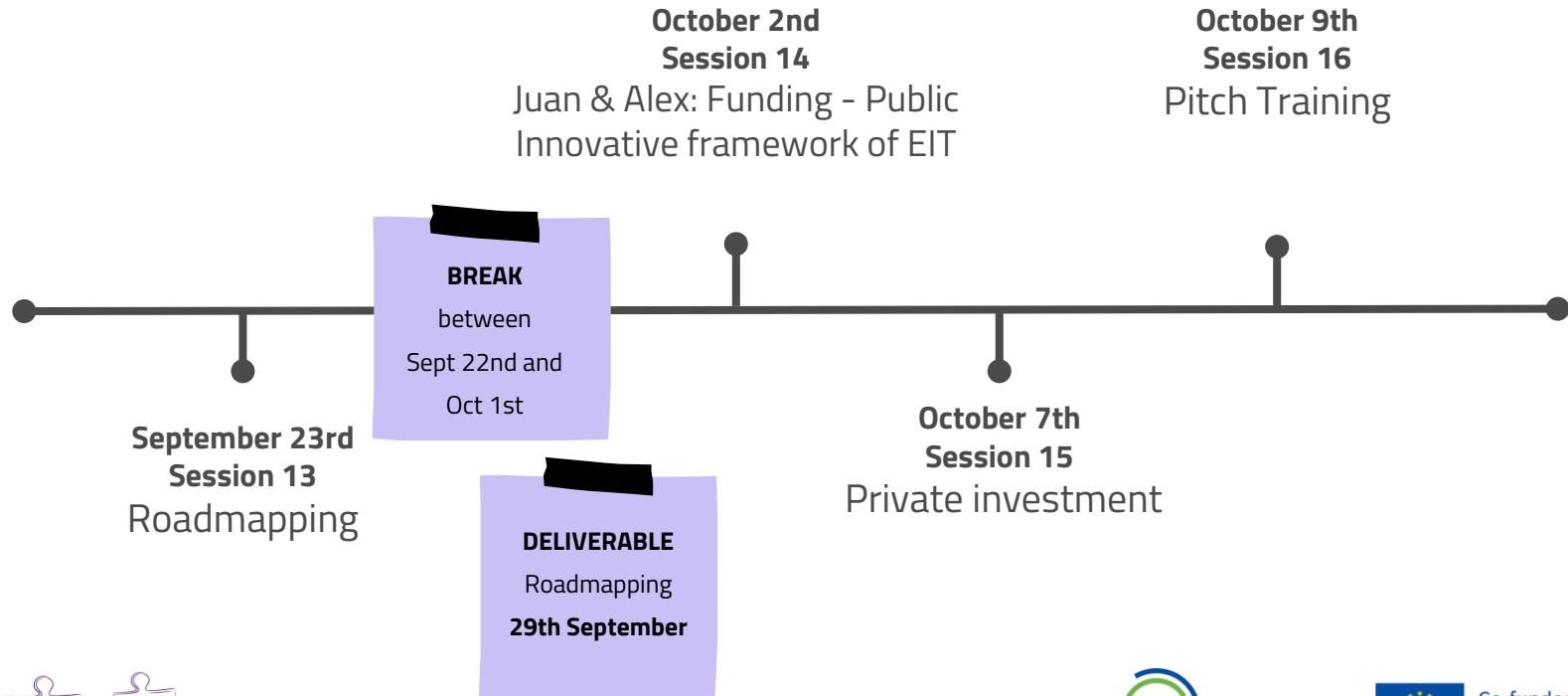
Contact Us!

Do you have any questions?

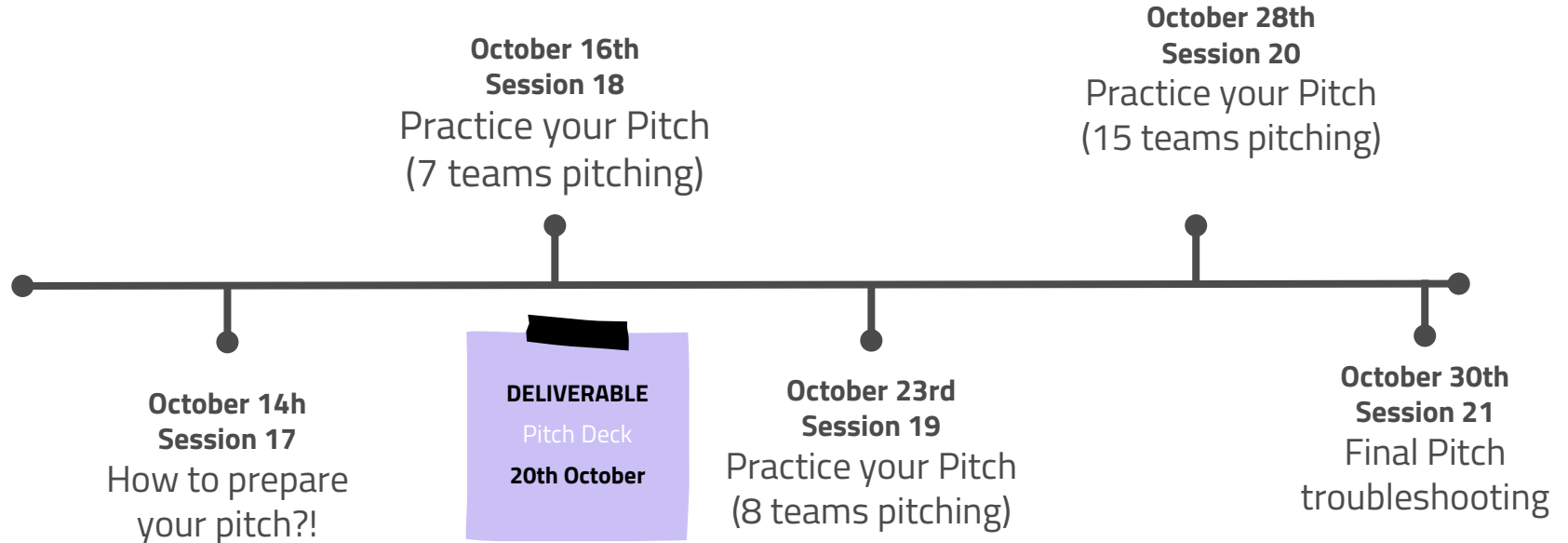
teamup@eitfood.eu



Sessions



Sessions



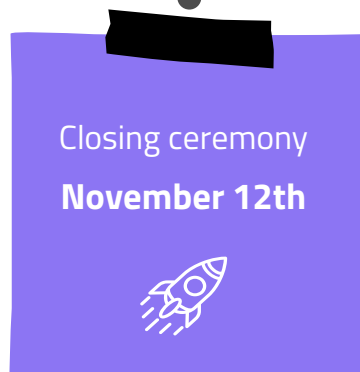
Graduation: Pitch competition



November 4th
Day 2 with 7 teams



November 3rd
Day 1 with 8 teams



Next Step for winners:
Register the company

