

Welcome to our joint IP training series:

Patent protection for EU funding beneficiaries

An IP training series offered by the European Patent Office and the European IP Helpdesk







Patent Protection for EU funding Beneficiaires Digital Communication

Patent protection for EU funding beneficiaries An IP training series offered by the European Patent Office and the European IP Helpdesk

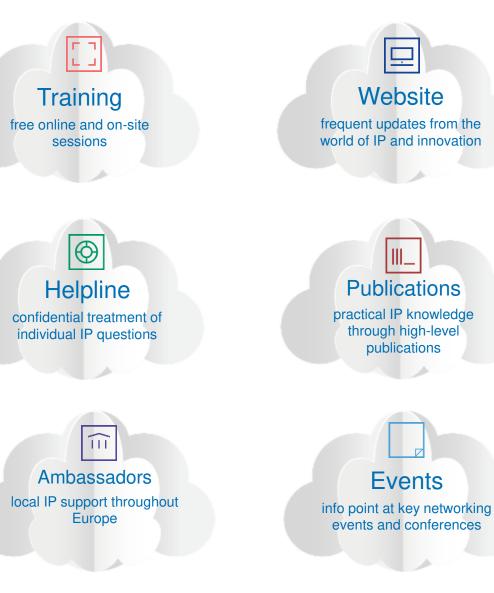




European IP Helpdesk

- Service initiative of the European Commission
- Addressing current and potential beneficiaries of EUfunded 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: 43 ambassadors from 27 EU countries







The EC IP Helpdesks





Agenda

Introduction

Michele Dubbini, Senior IP Expert, European IP Helpdesk

Main aspects of IP management in EU-funded projects

Michele Dubbini, Senior IP Expert, European IP Helpdesk

Getting to know patents

Christian Soltmann, Product Manager Patent Data & Services at European Patent Office

- Patentability of new technological developments in Digital Communication Georgia Tseliou, Patent Examinar at European Patent Office
- Learning resources
- Q&A



[REC]



European IP Helpdesk

Stay ahead of the innovation game.

IP in EU funded projects (H2020/HEU)

20.10.2022



Roadmap

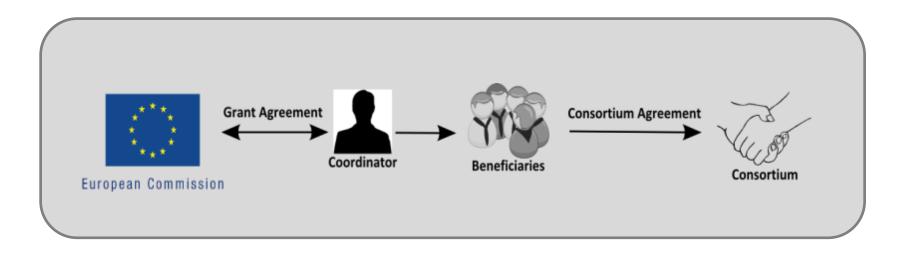
- Rules and Agreements
- Specific Vocabulary



Rules & Agreements

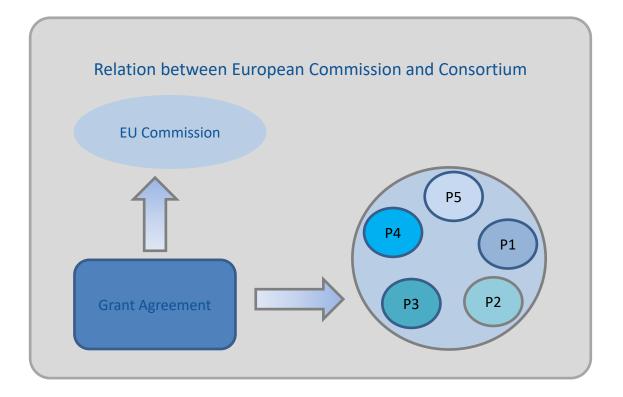


Overview: Agreements



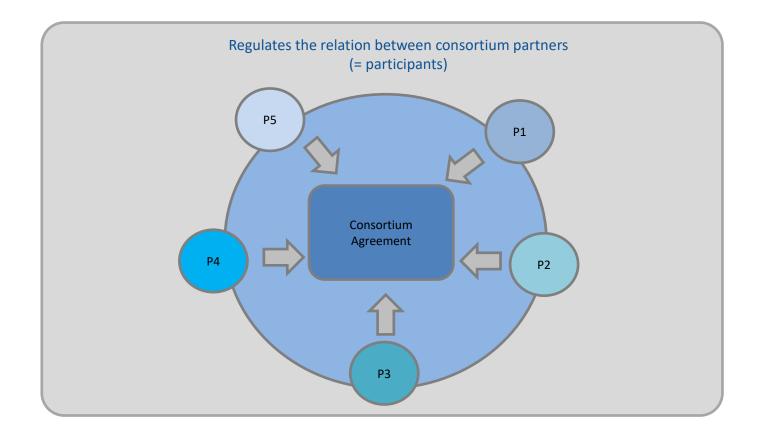


Grant Agreement (GA)





Consortium Agreement (CA)





Specific Vocabulary





Vocabulary

Key terms in the context of Horizon projects are:

- Background
- Results
- Exploitation
- Dissemination
- Access rights





Ownership of Results

- In Horizon projects, generally the Grant Agreement establishes that the results of the project belong to the participant generating them.
- It is advisable to take appropriate measures to properly manage ownership issues, such as keeping laboratory books or other kinds of documentary evidence (e.g. a properly completed Invention Disclosure Form).



Access Rights (I)

- Each project partner has the right to request access rights to the other project partners' background and results **as long as it needs them** in order to carry out its work under the project or to exploit its own results (these are <u>minimum access rights</u>: additional ones can always be negotiated!).
- To avoid conflicts, it is recommended that beneficiaries agree (e.g. in the consortium agreement) on a common interpretation of what is "**needed**"
- Shall be **requested in writing**. Can be granted in any form.
- Are to be requested/granted throughout the duration and up to 1 year (or as otherwise agreed in the CA) after the end of the project for exploitation needs. Once requested, access rights may be exercised as long as they are needed for exploiting the results (e.g. until the background patent expires).

Access rights do not confer the right to grant sub-licences!





NEW: Results Ownership List (ROL)

A new form will be introduced – **Results Ownership List** (ROL) in the final reporting period – This form will detail the final owners of IP after the project is over, and can consist of singular or multiple owners to enable EC follow up of exploitation



Tracking of Research Results (TRR)

- The Tracking of Research Results project (TRR) aims to enable the policy makers in research and innovation to access, analyze and disseminate the outcomes and impacts of the funded research results in a more comprehensive manner.
- The R&I policy context puts ever higher importance on better demonstrating and increasing the impact of EU funded projects
- The long term nature of R&I and the time-lag between the intervention and the occurrence of any (intended, unintended, positive or negative) impact means that any research that ultimately has a significant impact will
 EC trac

EC tracks results up to 4 years after project completion

• The EC collection of project data is fit for monitoring only



Other innovation support initiatives



Horizon IP Scan Helping SMEs manage and valorise Intellectual Property in R&I collaborations







Contact:

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- helpline@iprhelpdesk.eu
- Twitter @iprhelpdesk
- LinkedIn /european-ipr-helpdesk
- EU IP Helpdesk: IP in HEU https://attendee.gotowebinar.com/record ing/3004469817145880321





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Thank you!



Europäisches Patentamt European Patent Office

Office européen des brevets

AU63-2022 Patent protection for EU funding beneficiaries

Getting to know patents

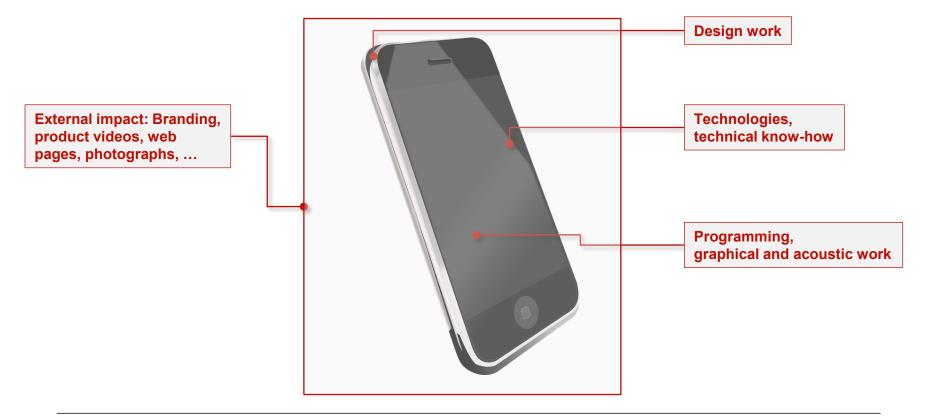


Christian Soltmann

5.4 Patent Knowledge

20 October 2022

Creating products and services: To start with an example ...



Intellectual property rights help to protect your products and services

Legal right	What for?	How?	
Patents	New inventions	Application and examination	
Copyright	Original creative or artistic forms (literary texts, music)	Exists automatically	
Trade marks	Distinctive identification of products and services	Use and/or registration	Google
Registered designs	External appearance	Registration	CONTRACTOR OF THE OWNER
Trade secrets	Valuable information not known to the public	Reasonable efforts to keep secret	

Patents: Overview



- Patents protect (technical) inventions
- Patent: A legal title which grants the holder the exclusive right to prevent others from making, using or offering for sale, selling or importing a product that infringes his/her patent without authorisation
- Principle of territoriality: Valid in countries for which the patent was granted
- Exist for a limited time (up to 20 years)
- Exceptions and limitations apply

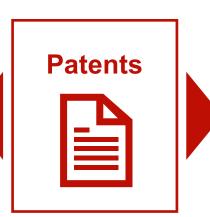
The basic principle of the patent system: Balance of interests



Benefit the public

by making the detailed description of the invention available to everyone

Technical information available 18 months after filing



Benefit the owner

by preventing third parties from exploiting the invention for commercial purposes without authorisation

Patent valid for max. 20 years

Patent system: An incentive for economic growth



- Enables patent holders to recoup their development costs
- Makes the latest technological knowledge available to the public
- Inspires further innovation
- Prevents duplication of R&D
- Provides the legal basis for licensing and R&D co-operation
- Attracts venture capital funds and investors

Three possible routes to get patent protection in Europe



Route	National	European	International
Via	National offices	European Patent Office or national offices	International Bureau or European Patent Office or national offices
Valid in	One country	Up to 39 countries + one extension state + four validation states	Up to 156 countries
In brief	Applications are filed with the relevant national office and are valid for that state only	One single application in DE/EN/FR for all EPC contracting states. Same legal effects as national patents	Centralised international patent application procedure. After the international phase, applicants can choose to enter the national/regional phase in various states. No international patent

Today ... an area with some 700m inhabitants

39 European member states

Belgium • Germany • France • Luxembourg • Netherlands Switzerland • United Kingdom • Sweden • Italy • Austria Liechtenstein • Greece • Spain • Denmark • Monaco Portugal • Ireland • Finland • Cyprus • Turkey Bulgaria • Czech Rep. • Estonia • Slovakia • Slovenia Hungary • Romania • Poland • Iceland • Lithuania Latvia • Malta • Croatia • Norway • North Macedonia San Marino • Albania • Serbia • Montenegro

•7

One European extension state Bosnia and Herzegovina

Four validation states

Republic of Moldova • Morocco • Tunisia Cambodia Cambodia

European route: Patentability requirements

Patents are granted for inventions in all fields of technology

To be patentable, inventions must

- be new
- involve an inventive step
- be industrially applicable

They must relate to a product, process, apparatus or use.



European route: Excluded from patentability¹

- Discoveries
- Scientific theories
- Mathematical methods
- Computer programs
- Aesthetic creations
- Business methods
- Methods for playing games
- Methods for performing mental acts
- Presentations of information

¹ See Article 52 EPC and the case law of the Boards of Appeal.



European route: Exceptions to patentability¹

- Plant or animal varieties or essentially biological processes for the production of plants or animals (e.g. marker-assisted breeding)
- Inventions whose commercial exploitation would be contrary to "ordre public" or morality (e.g. processes for the cloning of human beings)
- Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body

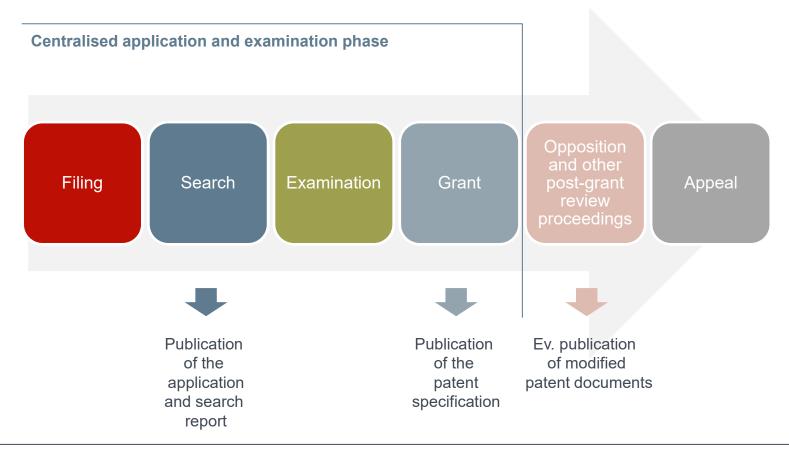






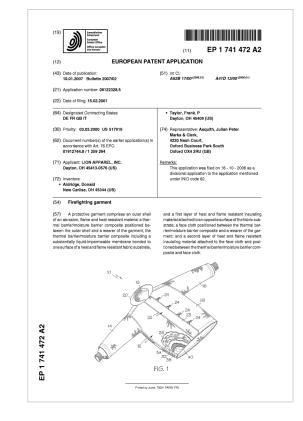
¹ See Article 53 and Rule 28 EPC

Basic steps in the European grant procedure

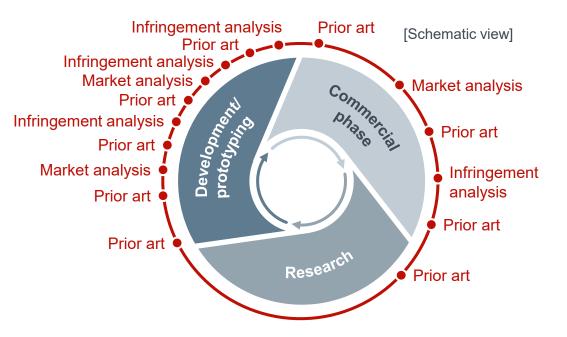


What information do patent documents contain?

- Title of the invention, name of the inventor
- Detailed description of the invention: how it is constructed, how it is used, benefits compared with what already exists
- Claims providing a precise definition of the scope for which legal protection is sought
- Drawings
- Abstracts: summary of the invention particularly useful for search engines



Why patent information is so important



Patent information helps to

- find out what technology already exists and build on it
- avoid duplication of R&D expenditure
- check where an invention is protected
- **avoid infringing** other people's patent rights
- keep track of what others are doing
- identify new partners, e.g. for licensing
- **spot trends** in technology or the market

... and much more.

Patent information supports informed decision-making at all stages of the innovation process!
 With that, patent information makes businesses more successful and supports innovation

Conclusions



Patents help to protect (technical) inventions.



The patent system provides for a balance of interests between patent holders and the public.



There are different routes to patent protection in Europe.



It is important to be aware of the patentability requirements, exclusions and exceptions to patentability.

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Europäisches Patentamt European Patent Office Office européen des brevets

Patentability of new technological developments in digital technology

Navigating the patent landscape of telecommunications



Georgia Tseliou

Examiner, Wireless Telecommunications

20 October 2022

Motivation

Technological Evolution

Patents in Telecommunications

Patents and Standards

Conclusions

Information & Communications Technology (ICT): highly innovative and rapidly changing area

Computing & telecommunications

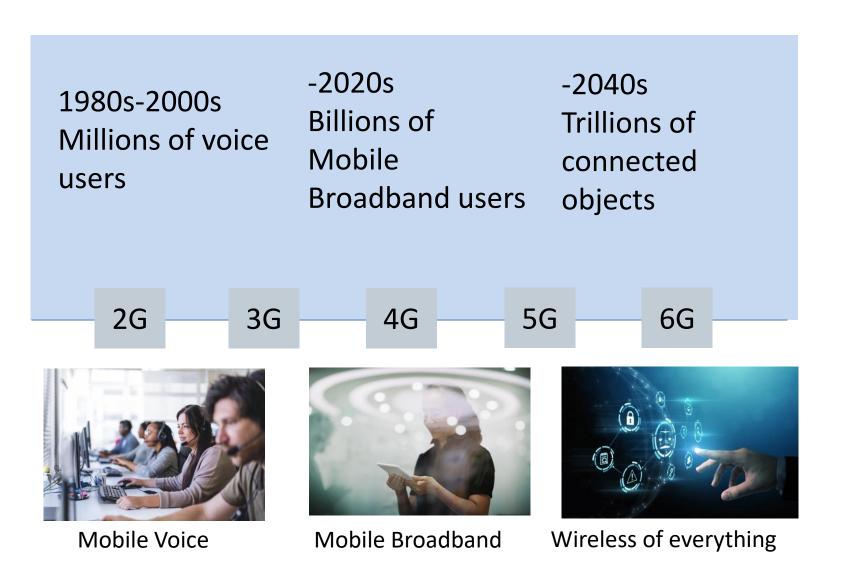
Developments in emerging technologies, AI

Emergence & convergence of new verticals

5G: largest technology shift in ICT since 2G to 3G





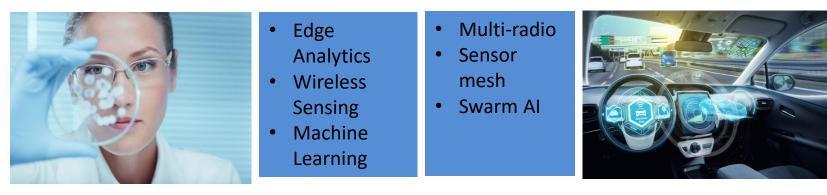




Automated Factories



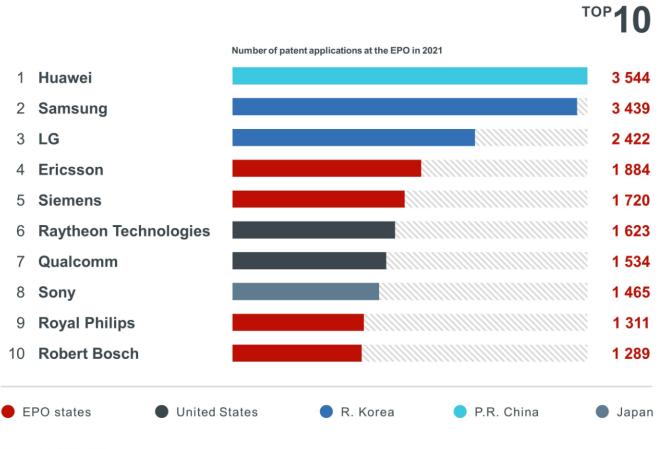
Personal Experiences



Smart Health

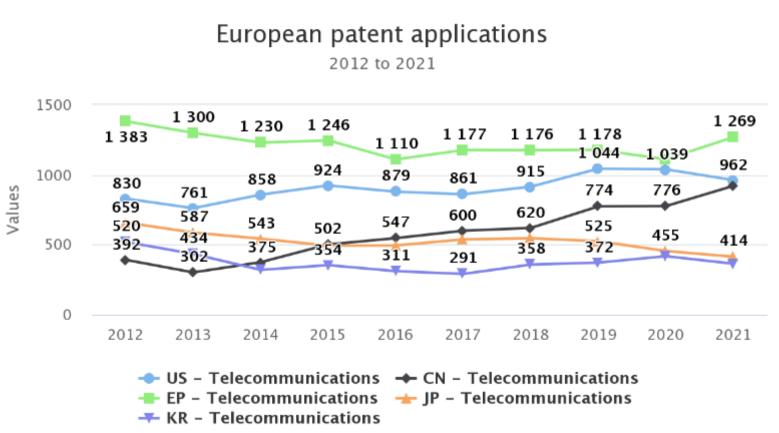
Automated Vehicles

Top applicants for European patents 2021



European Patent Office 2022





Source: https://new.epo.org/en/statistics-

centre?chartType=line&patentType=applications&fromDate=%5B%222012%22%5D&toDate=%5B%222021%22%5D&selectedCountries=%5B%22EP%22%2C%22CN%22%2C%22JP%22%2C%22KR %22%2C%22US%22%5D&selectedFields=%5B3%5D

- Title of the invention, name of the inventor
- Detailed description of the invention:

how it is constructed, how it is used, benefits

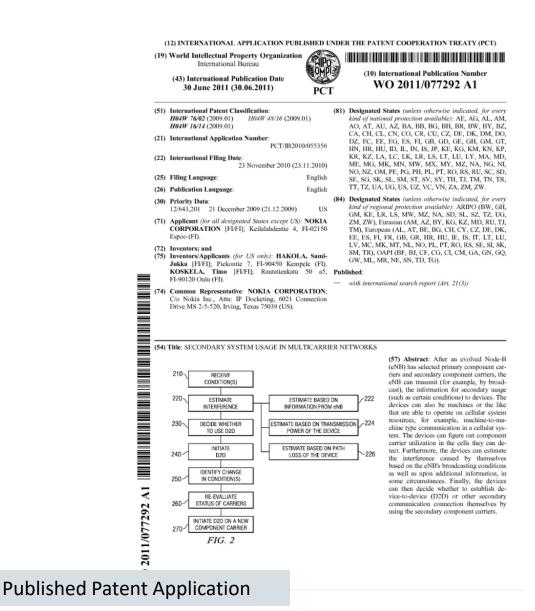
compared with what already exists

Claims providing a precise definition of what the

patent application aims to protect

- Drawings
- Abstracts: summary of the invention –

particularly useful for search engines



Let's have a look at a claim

Claim is a solution to a technical problem

Features should be new and inventive to be allowable under EPC

Industrial application

At search stage

1. A method, comprising:

selecting at least one primary component carrier for a cell of a radio network;

selecting at least one secondary component carrier for the cell of the radio network;

and

initiating transmission of at least one condition to at least one device, wherein the at least one condition is configured to permit the at least one device to determine whether to use at least one of the at least one secondary component carriers for device-to-device communication with at least one other device.

Claim as originally filed

After substantive examination

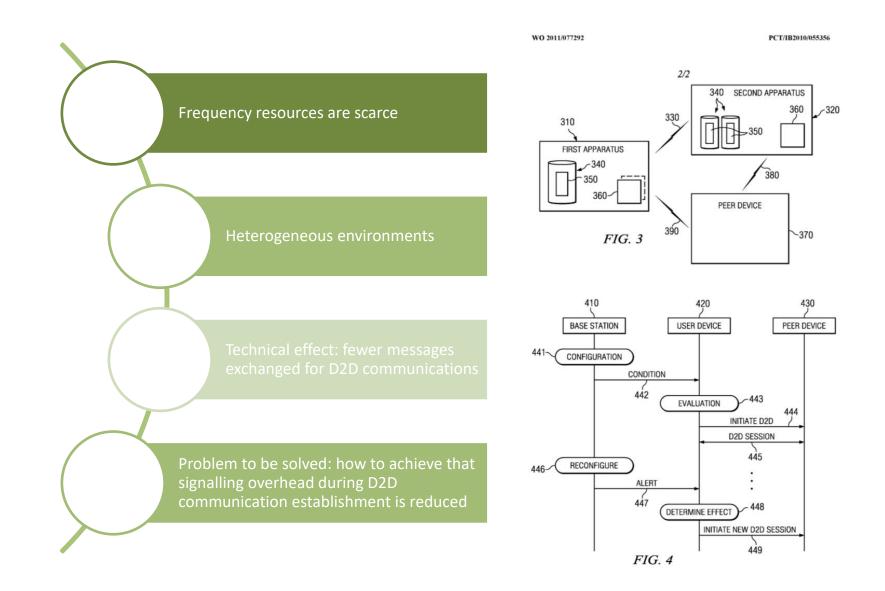
1. A method, comprising:

Selecting, at an access node of a radio network, at least one primary component carrier for a cell of athe radio network;

Selecting, at the access node, at least one secondary component carrier for the cell of the radio network; and

initiating transmission of at least one condition from the access node to at least one device (420), wherein the at least one condition comprises an indication of a maximum allowed interference, wherein the at least one condition is configured to permit the at least one device to determine, at a respective device, whether to use at least one of the at least one secondary component carriers for device-to-device communication with at least one other device (430) based on comparing an estimated interference caused by prospective transmission from the respective device in a prospective device-to-device communication to the at least one condition, wherein the at least one condition comprises an indication of a maximum allowed interference.

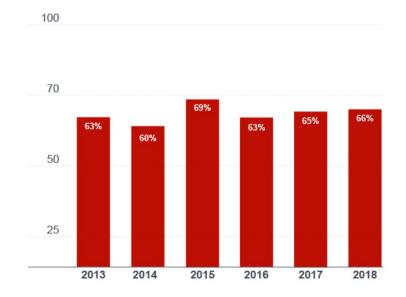
Amended features Different from the prior art Not obvious





EPO and Patent information contributes actively to **further development of standards**

Standards provide guidelines to manufacturers, vendors, government agencies, and other service providers to ensure the kind of inter connectivity necessary in today's marketplace and in international communications

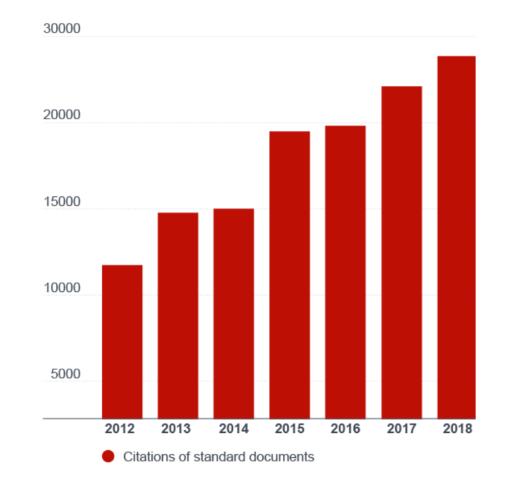


 Percentage of EPO Search Reports with SDO citations in one example technical area; patent class "H04N19/00: Methods or arrangements for coding, decoding, compressing or decompressing digital video signals"

Standards documents qualify as state of the art unless they are subject to a clearly established and well respected confidentiality obligation

To be considered new, the patent applications claiming these technologies must be filed before disclosure in the standards development process

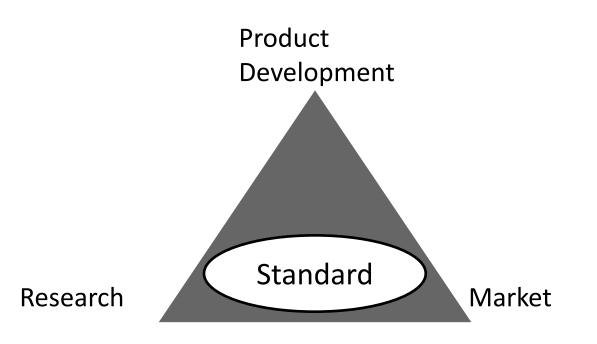
Previously disclosed standards documentation may also be used to determine what is considered "obvious" to the person skilled in the art



Standard Essential Patents (SEPs) are patents that cover essential technologies that are considered an established standard in a particular industry

- Essential technologies :
 - solution described in the patent is mandated by the standard (where it applies)
 - Any standard compliant (certified) product must implement it
- Established standard:
 - <u>De facto</u>: a particular industry has simply chosen to adopt that standard without preexisting agreement (Microsoft Windows)
 - <u>De jure</u>: a government agency (regulator) has imposed that standard
 - <u>Compatibility</u>: adopted by a SDO to which many participants in a particular industry belong to (3GPP specs adopted by ETSI)

Companies
try to make
profit via:Research: creating product ideas and patentsMarket: creating opportunities to sell products
Products: creating revenue and market share



- Click to edit Master text styles
 - Second level
 - Third level

Fourth level
 Offer licenses of these IPRs on a FRAND basis
 Fifth level

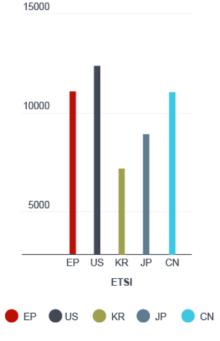
FRAND: Fair, Reasonable & Non-Discriminatory

Ensuring compatibility between patent and standardisation systems

Standards development participants to declare SEPs

The number of patent families declared to standardization bodies as SEP has already reached the tens of thousands

Numbers of Standard Essential Patents declared at major Standards Development Organisations





Patents can be part of a business strategy



There is no worldwide patent; a patent is limited both in territory and time (valid for maximum 20 years)



If you want a patent, you **must keep your invention secret** until the application is filed



You will only get a patent if the application and the described invention fulfils the EPC requirements



very procedure in each PO is different and the final decision is up to the respective PO



Telecom: Highly innovative and rapidly changing field



Innovation is reflected in the patent system



A glimpse on search and exam in this field



Innovation: IP vs. Invention & commercialisation



SEPs and their role for industry and the patent system

Georgia Tseliou, Ph.D. gtseliou@epo.org Patent Examiner, EPO Patent protection for EU funding beneficiaries An IP training series offered by the European Patent Office and the European IP Helpdesk





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LEARNING RESOURCES

European IP Helpdesk

Michele Dubbini



Communication Formats & Outreach Tools





European IP Helpdesk Training Calendar

TRAINING AND WORKSHOPS 20

EU - Webinar EPO Coop: Patent protection for EU funding beneficiaries - Digital communication

Live streaming available



OCT

2022

TRAINING AND WORKSHOPS EU - Webinar: Consortium Agreements

Live streaming available



TRAINING AND WORKSHOPS EU - From Lab to Market - Successful

Technology Transfer Journeys - Case: fos4x

Live streaming available

14	INFO DAYS
NOV	Horizon IP Scan - Info Session
2022	S Live streaming available





- EU Webinar: Technology Transfer
 - Live streaming available



- EU Webinar CIOPORA coop: Enforcement practices for Plant Variety Rights in the EU
 - Live streaming available



2022

2022

TRAINING AND WORKSHOPS

EU - Webinar: Effective IP and Outreach Strategies Help Increase the Impact of Research and Innovation

Live streaming available



EU - Webinar: IP in Business collaborations for SMEs and Start-ups

Live streaming available

2022

Registration: <u>www.ec.europa.eu/ip-helpdesk</u>



From Lab to Market – IP & successful TT Training series

TRAINING AND WORKSHOPS 07 JUN

EU - From Lab to Market - Successful Technology Transfer Journeys - Case:

Live streaming available

OXEON



2022

TRAINING AND WORKSHOPS

EU - From Lab to Market - Successful Technology Transfer Journeys - Case: **Dermis Pharma**

Live streaming available



TRAINING AND WORKSHOPS

EU - From Lab to Market - Successful Technology Transfer Journeys - Case: Perceive3D

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TRAINING AND WORKSHOPS

EU - From Lab to Market - Successful **Technology Transfer Journeys - Case:**

Cubicure



29

JUN

2022

2022

2022

TRAINING AND WORKSHOPS

EU - From Lab to Market - Successful Technology Transfer Journeys - Case: **Atlantic Therapeutics**

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EU - From Lab to Market - Successful Technology Transfer Journeys - Case: Blubrake

Live streaming available



TRAINING AND WORKSHOPS

EU - From Lab to Market - Successful Technology Transfer Journeys - Case: fos4x

Live streaming available



Registration: <u>www.ec.europa.eu/ip-</u> helpdesk/lab market

Live streaming available





Ambassador Scheme

- Cooperation scheme with the Enterprise Europe Network (EEN): 43 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





Listen in!





Talk innovation - the EPO podcast

-Von European Patent Office

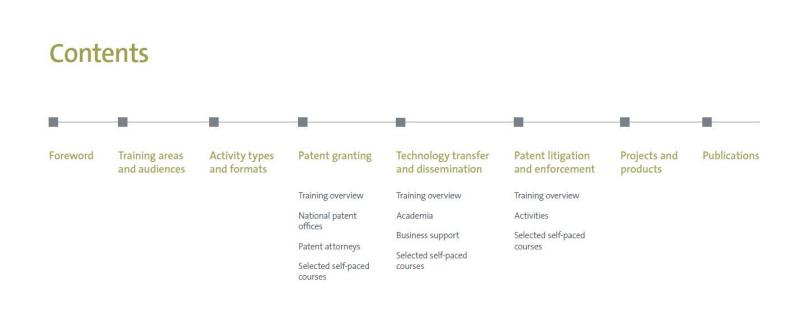
"Talk innovation" is brought to you by the European Patent Office (EPO). Expert presenters and guests – including our patent examiners - provide their perspective on technology trends and highlight ground-breaking inventions. Join us to learn more on the role of patents and the intellectual property (IP) system in supporting society and the economy.

🗟 Auf Spotify hören

https://anchor.fm/european-patent-office/episodes/Textiles-for-the-extremea-technology-transfer-case-study-e14nv77/a-a663s9j



Access to the 2022 catalogue of the European Patent Academy



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- Advanced level IP lectures designed for researchers/students with pre-existing IP knowledge
- Current series on Medical Technology: next Friday, 14-15 hrs CEST

Lectures scheduled for **2023**:

- Plastic recycling and alternative plastics (4 lectures)
- Vaccines and therapeutics (4 lectures)



"Meet an inventor from the Medical Technology field" Prof Dr Tim Lüth



- Students and researchers
- Next visit: 7 December 2022
- Duration: approx. 3 hours
- Level: entry intermediate
- Format: online
- Programme focus:
 - Specific technical fields

3 study visits in 2023

• Introduction to the EPO and the European

patent system: 15 June and 7 December

• Focus on plastic recycling and alternative plastics:

5 October



- New series from the European Patent
 Academy in co-operation with the EPO
 communication department for a wide
 audience
- Features distinguished inventors and their inventions that were finalists or winners of

the European Inventor Award



- Opportunity to interact with the inventors and learn how to successfully bring an invention to market
- Online sessions of 30 minutes' inventor's talk followed by 30 minutes Q&A session
- Next talk on 2 December 10:00 CET:
 Jan van der Tempel
- "Safe transfer to and from offshore platforms"

Available on YouTube, LinkedIn, Facebook,

Twitter and Instagram



Further learning opportunities: 1. European IP Helpdesk Ambassadors and EEN 2. EUIPO learning portal 3. EUIPO – Ideas Powered for business website

4SMEs

- 4. <u>WIPO Academy</u> / Diagnostics
- 5. The Ideas Powered for business SME Fund
- 6. **IPA4SME**
- 7. Horizon IP Scan
- 8. (<u>IP Booster</u>)
- 9. Horizon Results Booster
- 10. LeadershIP4SMEs
- 11. EPO Academy
- 12. <u>4IPCouncil</u>









Thank you!

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Thank you!

