European IP Helpdesk

Stay ahead of the innovation game.

IP and Open Science

10 03 2026

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: 43 ambassadors from 26 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

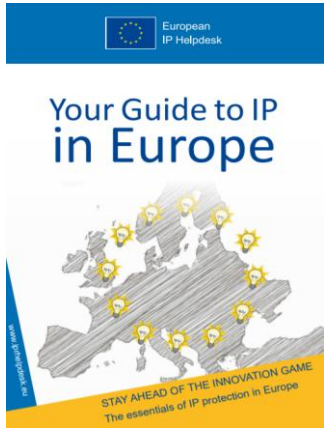
Ambassadors
local IP support throughout Europe

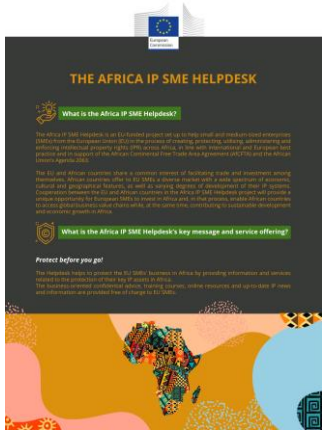
Events
info point at key networking events and conferences

ec.europa.eu/ip-helpdesk

The EC IP Helpdesks

EC IP (SME) Helpdesk Hub – Gateway to Information





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

Ambassador Scheme

- **Cooperation scheme** with the Enterprise Europe Network (EEN): 43 ambassadors – 26 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**

Upcoming events

03 MAR 2026
Training and workshops
EU - Webinar: IP in EU funded projects with a special focus on MSCA
Live streaming available

05 MAR 2026
Training and workshops
EU - Webinar: IP Assessment
Live streaming available

10 MAR 2026
Training and workshops
EU - Webinar: IP & Open Science
Live streaming available

12 MAR 2026
Training and workshops
EU - Webinar: IPR and Software
Live streaming available

17 MAR 2026
Training and workshops
EU - Webinar: IP Commercialisation and Licensing
Live streaming available

19 MAR 2026
Training and workshops
EU - Webinar & Horizon Results Platform: Open Science and IPR

20 MAR 2026
Training and workshops
EU - Webinar EPO Coop: Protect your IP in quantum technologies: Focus on quantum computing
Live streaming available

24 MAR 2026
Training and workshops
EU - Webinar: IP for Future and Emerging Technologies
Live streaming available

09 APR 2026
Training and workshops
EU - Webinar:IP Commercialisation & Licensing - Advanced
Live streaming available

22 APR 2026
Training and workshops
EU - Webinar & Horizon Results Platform: Artificial Intelligence
Live streaming available

23 APR 2026
Training and workshops
EU - Webinar: Freedom to Operate
Live streaming available

12 MAY 2026
Training and workshops
EU - Webinar: IP and Artificial Intelligence - Advanced
Live streaming available

19 MAY 2026
Training and workshops
EU - Webinar: Finding Patents
Live streaming available

25 MAY 2026
Training and workshops
EU - Webinar : Unitary Patent
Live streaming available

Thank you!

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

About me

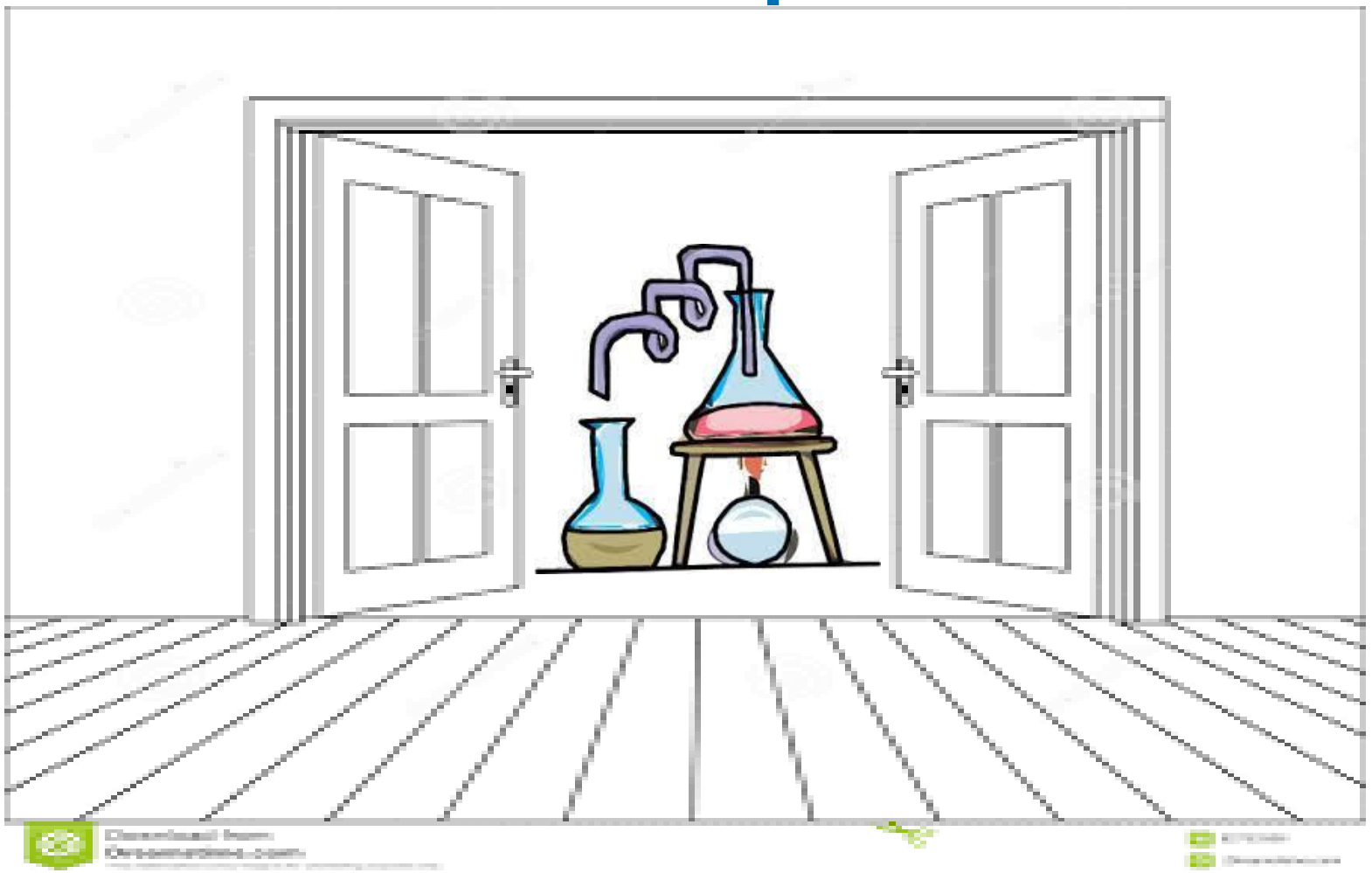
BSc (Physical) Chemistry (*Exon UK*)
PhD Neutron Science (*Exon UK*)
Harwell (UK), Rutherford Appleton (UK), ILL Grenoble (FR)
Royal Society of Chemistry, Institute of Physics,
Science Council (UK)
HM Govt, X-ray, electron, laser beam microanalysis
Looooooooooooong time at European Patent Office (NL, AT)
Patent examiner (electron and ion optics) IT manager, internet services Espacenet et al, manager, research manager
Consultant; bring worlds of STEM and IP together IPHelpdesk, EUIPO, WIPO, EPO tutor.
Cambridge University Technology Management teaching and research (*Cantab UK*) Visiting Fellow

Acknowledgements

- Dr Eugene Sweeney
  - Iambic Innovation
- Prof. Frank Tietze *et al*
  - IIPM Cambridge University

Teresa Gomez-Diaz, Tomas Recio. Towards an Open Science definition as a political and legal framework: sharing and dissemination of research outputs. *Polis*, 2020, 19, pp.5-25. ⟨hal-03318932⟩
https://data.europa.eu/doi/10.2826/527592

IP and Open Science



IP and Open Science

Capacity Building

Early stage Researchers

- Intellectual Property
- A ***legal system*** (to reward and encourage innovation)
- Based on ***conventions***
- "Openness"
- A ***movement*** (to support and enhance innovation)
- Backed up by ***culture***

Roadmap

What is IP?

What is Open? Kinds of “openness”

IP *cf* Open Science

Secrecy vs disclosure

IP sharing Closed vs Open

Scholarly publishing

Roadmap

What is IP?

What is Open? Kinds of “openness”

IP *cf* Open Science

Secrecy vs disclosure

IP sharing Closed vs Open

Scholarly publishing

What is Intellectual Property?

- Ideas
- Product of mental creation
- Inventions
- Works of art
- Literature
-

What are Intellectual Property Rights?

Registrable Rights

- Industrial Property Rights
- Patents
- Trademarks
- Industrial designs
- Utility models
-
-

Non Registrable Rights

- Copyright
- Authors rights, performance rights
- Trade secrets
- Confidential Information
- Know-how
- Show how
- Goodwill

Roadmap

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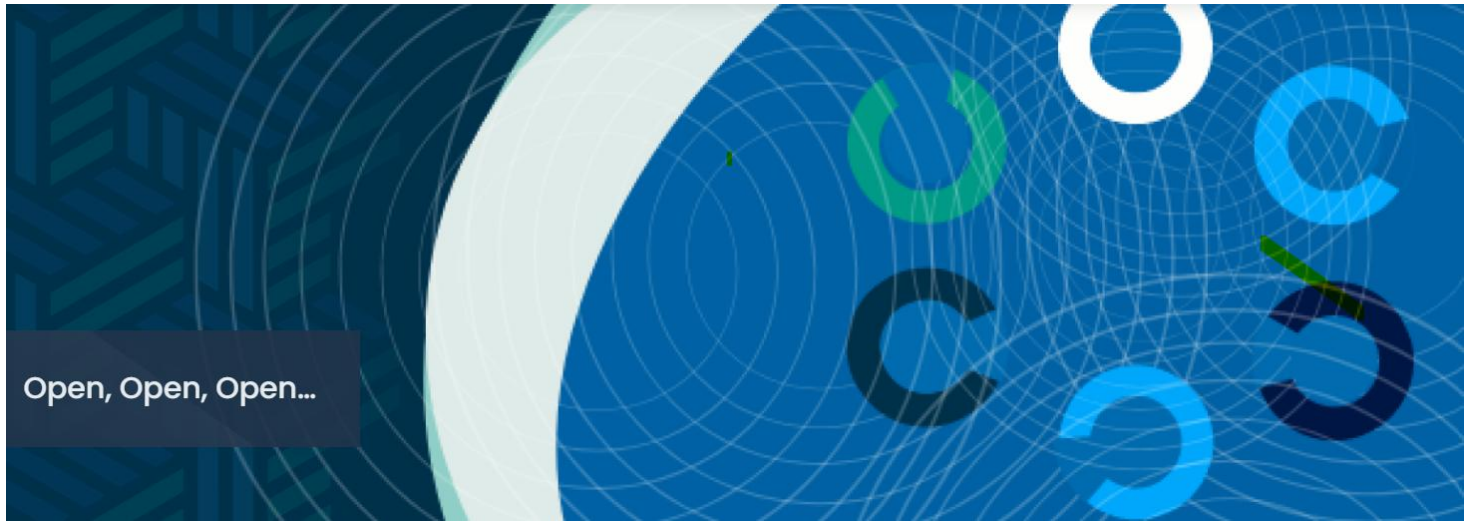
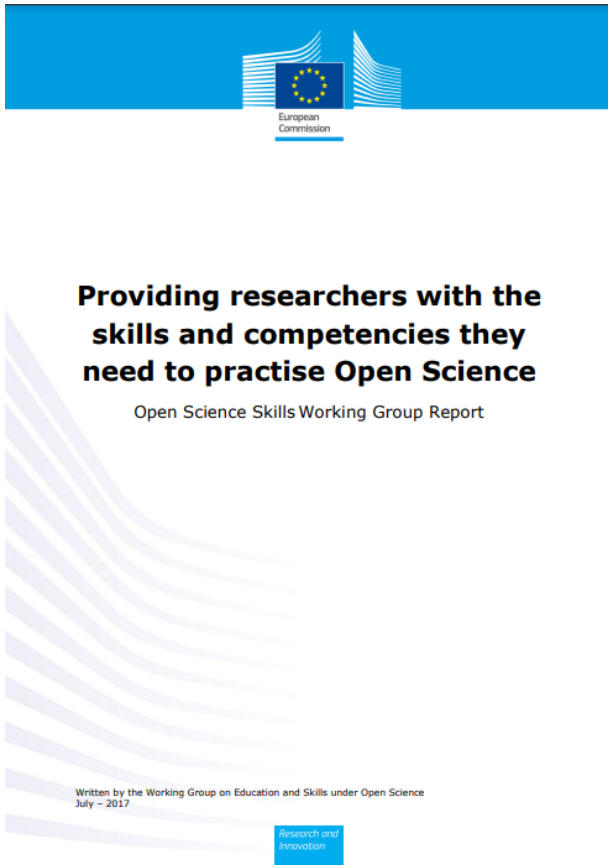


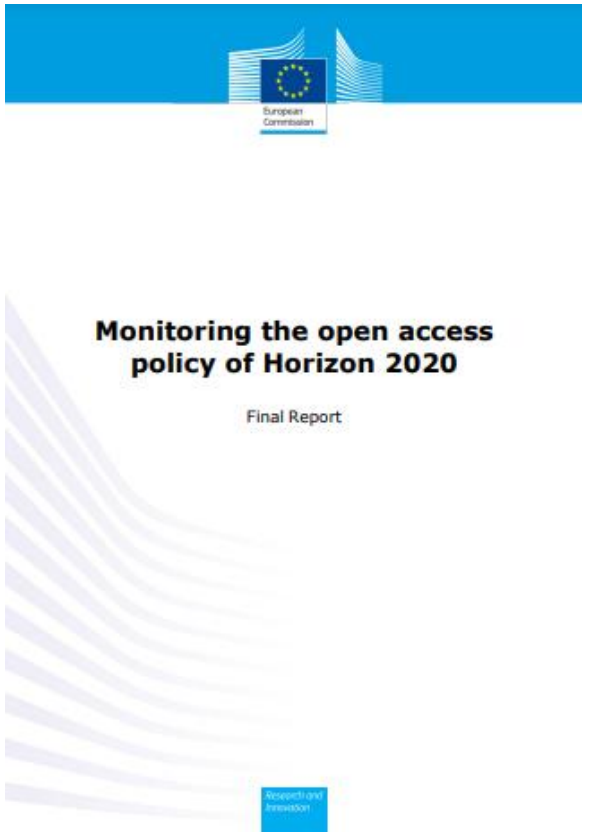
by Eugene Sweeney, Iambic Innovation Ltd

https://www.astp4kt.eu/about-us/kt-news/open,-open,-open%E2%80%A6.html



Open Science Practices

Open Science Enablers

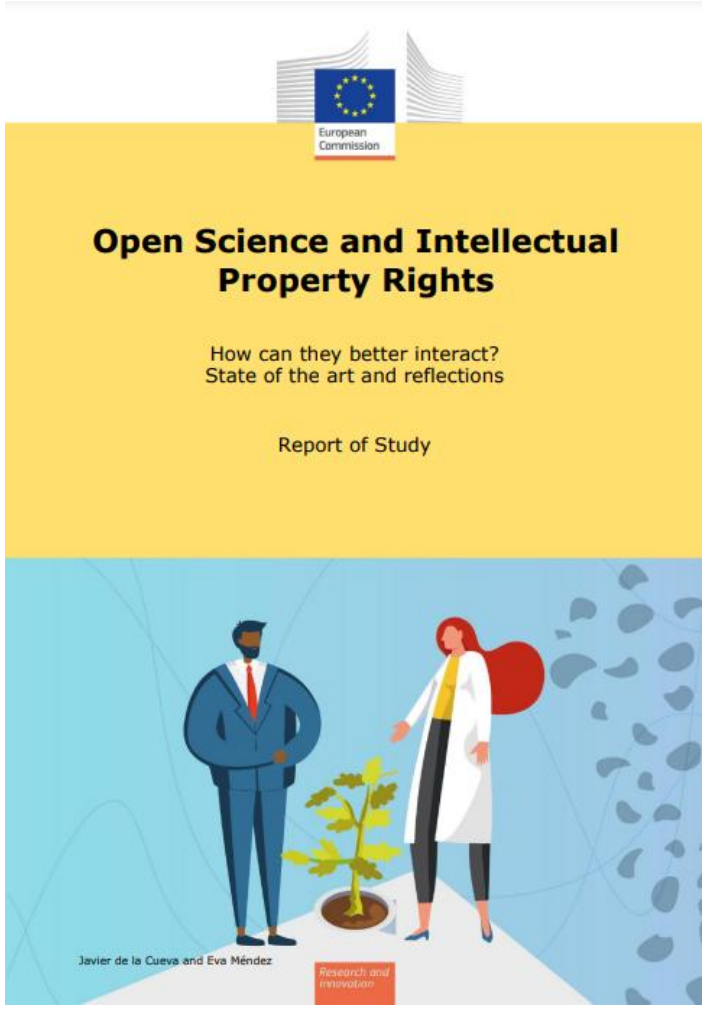


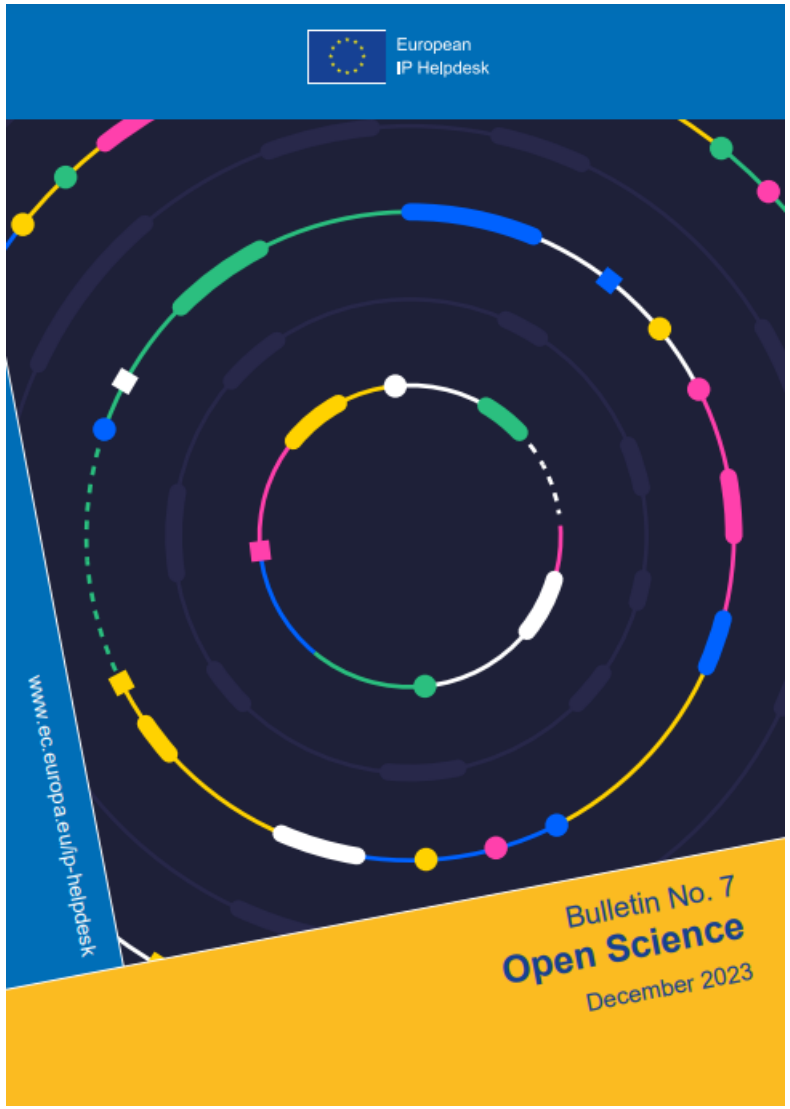
https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en

Open Science and IP

There are no incompatibilities between IPR and OS. 'On the contrary the IPR framework, if correctly defined from the onset, becomes an essential tool [for]open science…

https://research-and-innovation.ec.europa.eu/system/files/2022-04/ec_rtd_open-science-and-ip-report.pdf





European IP Helpdesk Bulletin / December 2023, Open Science

Open Science [is]an approach to scientific processes focused on quick and transparent knowledge and data sharing…

https://intellectual-property-helpdesk.ec.europa.eu/publications/european-ip-helpdesk-bulletin-december-2023-open-science_en

OPEN SCIENCE

Open Science, a priority for programmes like Horizon Europe, focuses on **freely sharing research results** without barriers or pay-walls.

Practices include Open Access to scientific publications and data, adhering to **FAIR principles** for responsible data management.

Engages stakeholders across the value chain to **promote innovation and interdisciplinary research.**

OPEN ACCESS

Open Access in Horizon Europe involves making scientific publications and data **freely available** without restrictions.

Enables further research, development of new innovations, and validation of results.

Open science

- **Open science** is the movement to make scientific research (including publications, data, physical samples, and software) and its dissemination accessible to all levels of society, amateur or professional

https://en.wikipedia.org/wiki/Open_science

Open science

- Open science **practices** include
- early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing);
- research output management;
- measures to ensure reproducibility of research outputs;
- providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); participation in open peer-review;
- involving all relevant knowledge actors including citizens, civil society and end users (citizen science)

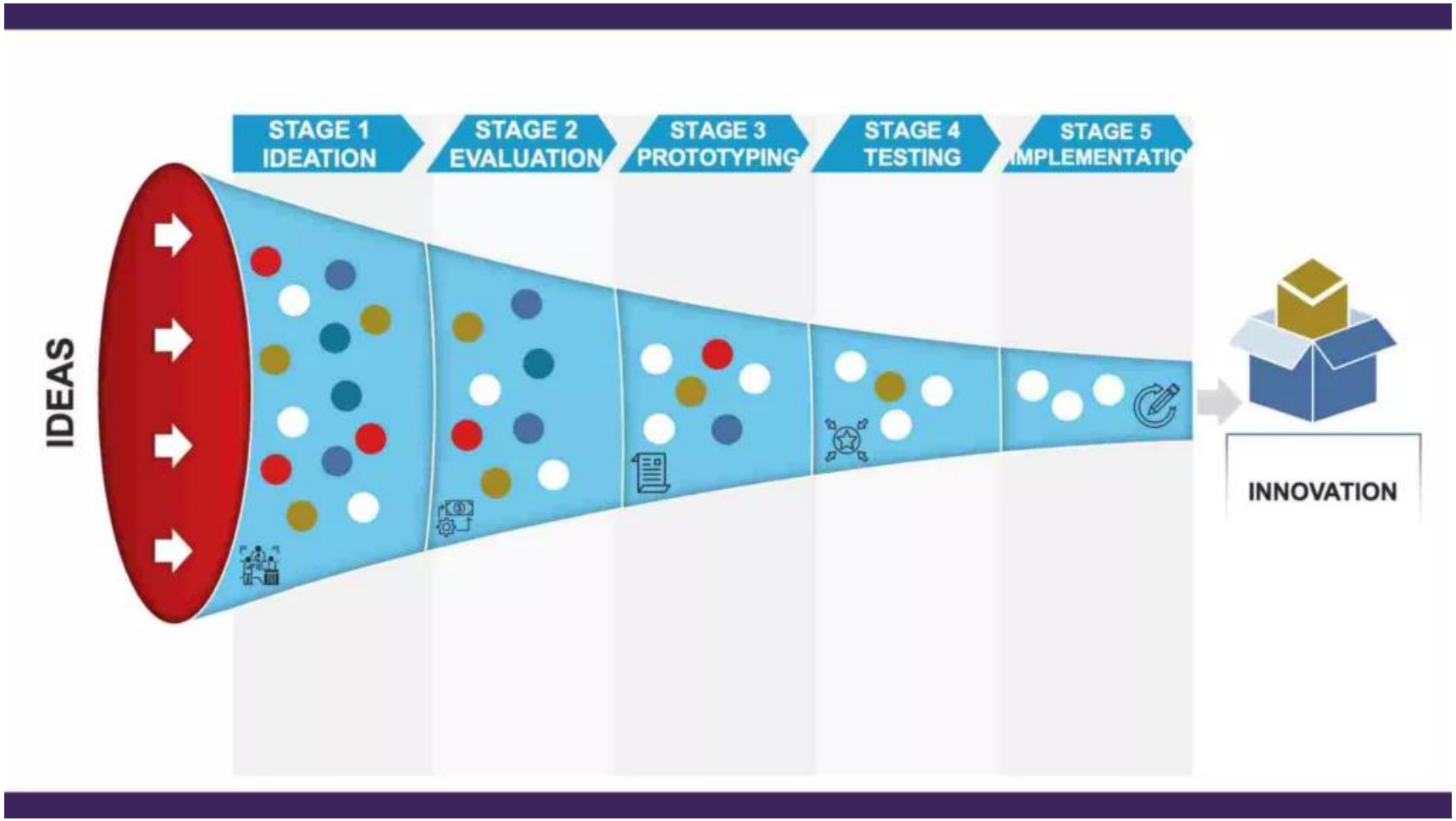
Horizon Europe Programme Guide, Version 2.0, 11 April 2022
https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf

Open Access

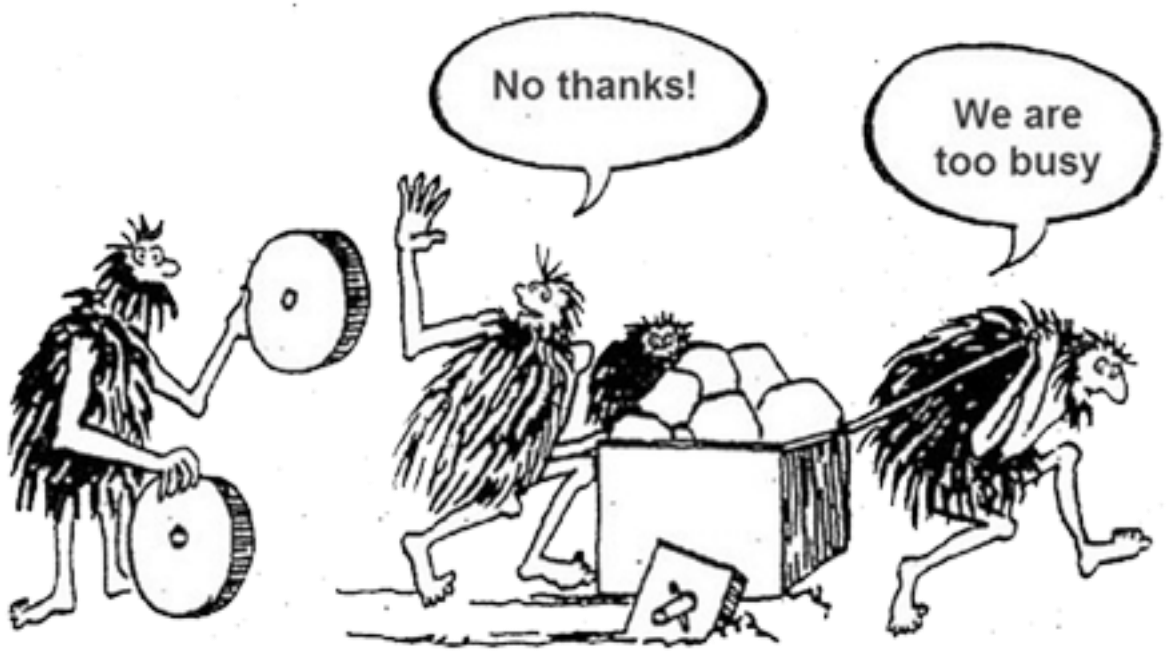
Open access (**OA**) is a set of principles and a range of practices through which research outputs are distributed online, free of access charges or other barriers.[1] Under some models of open access publishing, barriers to copying or reuse are also reduced or removed by applying an open license for copyright.

https://en.wikipedia.org/wiki/Open_access

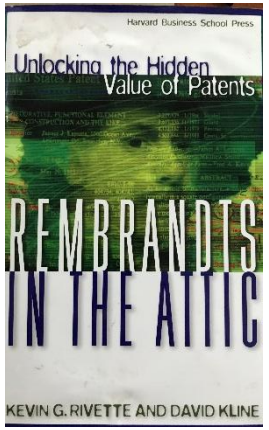
[Innovation=> Open Innovation]



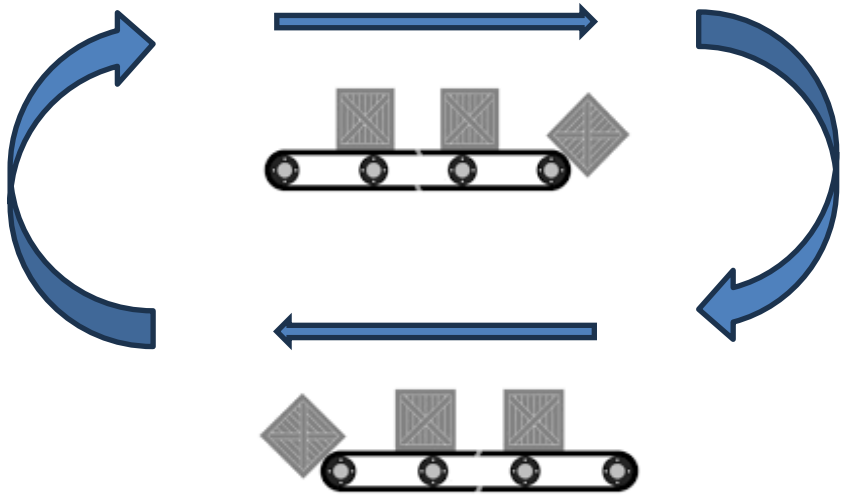
YES, BUT…..


No thanks!
We are too busy

1999



Your results



Others´ results

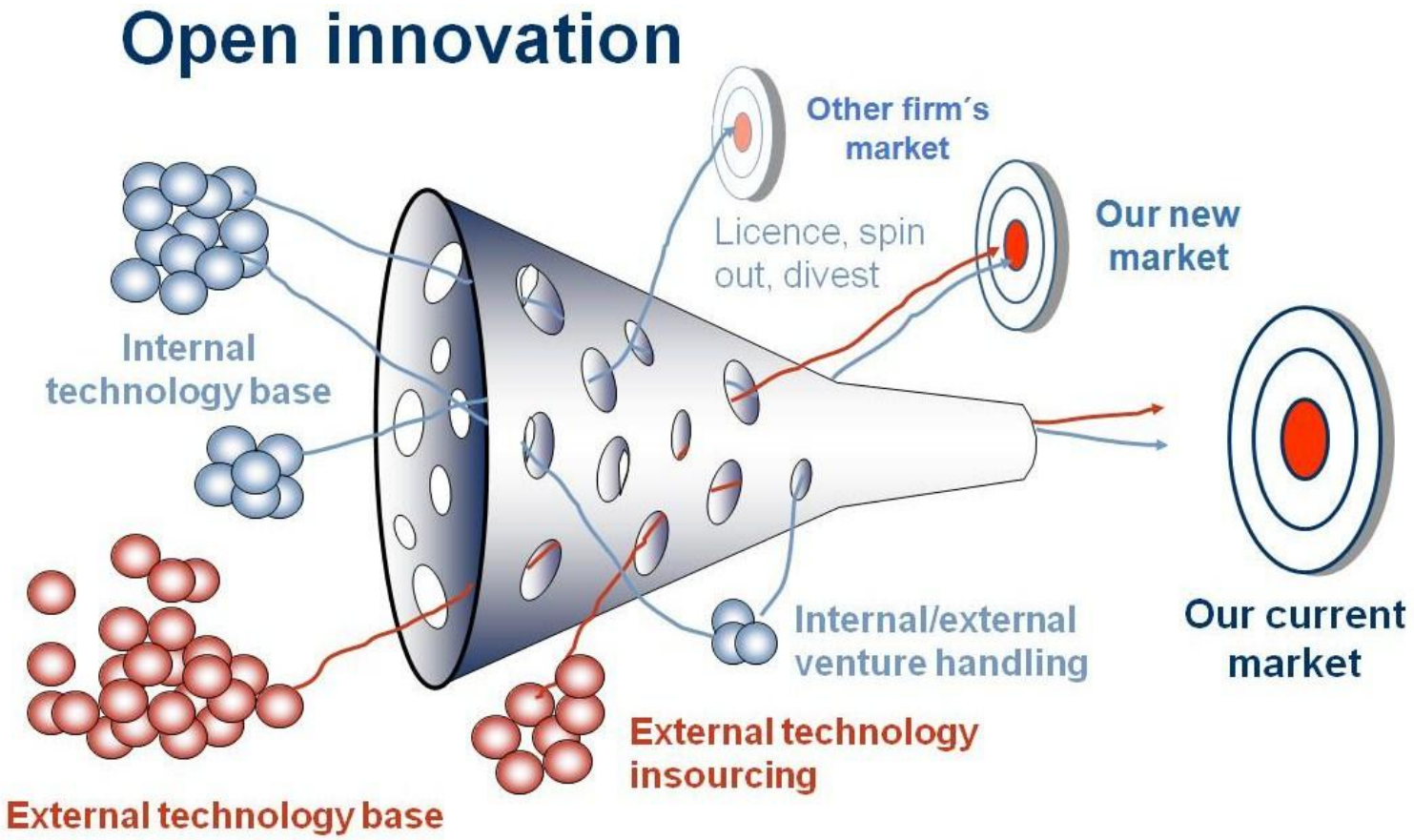
2003

Unused X

..but not necessarily for free for commercial use!

X Not invented here

[Open innovation]



https://www.eoi.es/blogs/imsd/innovation-what-is-open-innovation/

- Intellectual Property
- A ***legal system*** (to reward and encourage innovation)
- Based on ***conventions***
- “Openness”
- A ***movement*** (to support and enhance innovation)
- Backed up by ***culture***

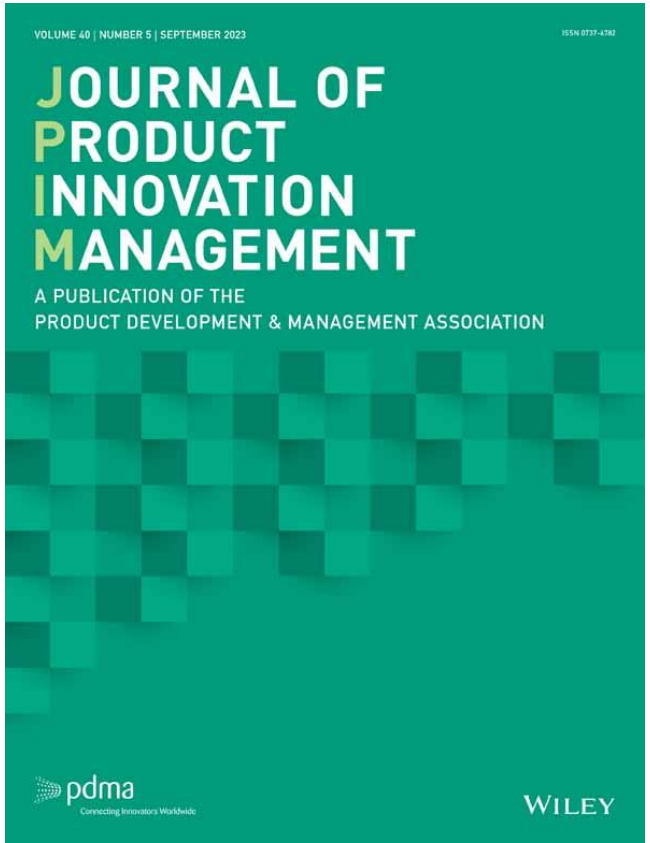
[Open innovation]

Intellectual property and open innovation … enemies or friends?

Journal of Product Innovation Management

https://onlinelibrary.wiley.com/doi/10.1111/jpim.12668

Anja Tekic, Kelvin W. Willoughby, Johann Füller



Open source

Generally, open source refers to software in which the source code is available to the general public for use or modification from its original design. Code is released under the terms of a software license. Depending on the license terms, others may then download, modify, and publish their version (fork) back to the community.

https://en.wikipedia.org/wiki/Open_source

Open standards

An open standard is **a standard that is freely available for adoption, implementation and updates**. A few famous examples of open standards are XML, SQL and HTML. Businesses within an industry share open standards because this allows them to bring huge value to both themselves and to customers.

FRAND

Fair

Reasonable

And

Non-discriminatory

[Standards and IP]

A standard essential patent is a patent that protects technology that is essential to implementing a standard. A standard is an agreed or established technical description. It is also referred to as a 'technical standard' or 'technical interoperability standard'.

SEP

Standard

Essential

Patent

European Openness Initiatives - 1

- Open Research Europe

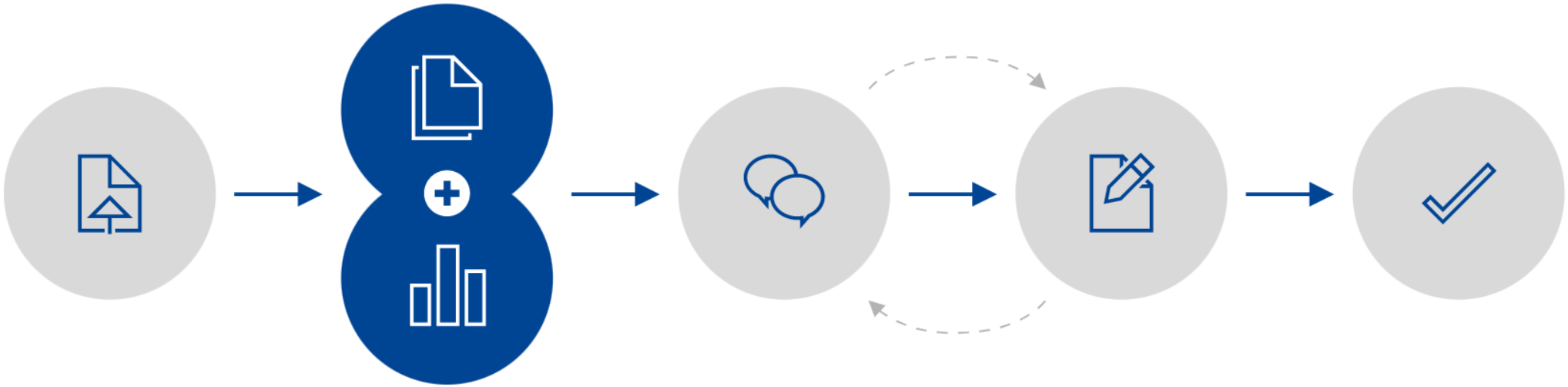
- **Rapid & Transparent Publishing**
- Fast publication and open peer review for research stemming from Horizon 2020, Horizon Europe and Euratom funding across all subject areas.

- Browsable web site

https://open-research-europe.ec.europa.eu/

European Openness Initiatives - 2

- Open Peer Review



European Openness Initiatives - 3

- European Open Science Cloud

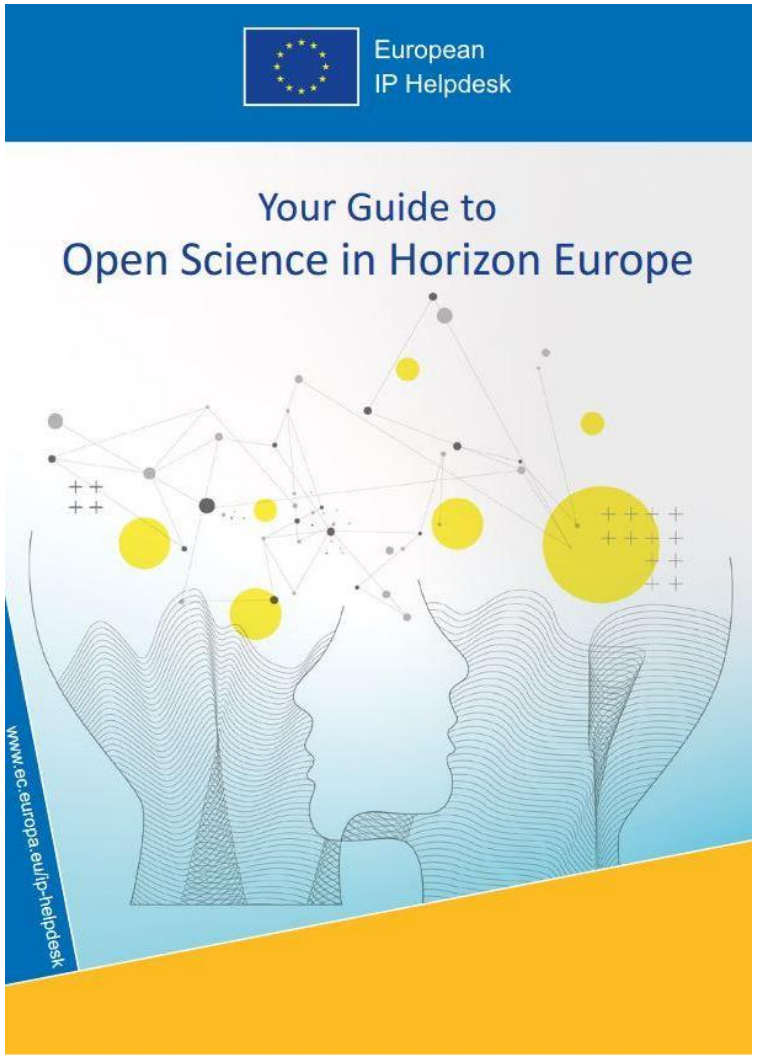
3m+
Assets in Marketplace

300+
Content Providers

340k+
Software Tools

200k+
Research Data

https://eosc-portal.eu/



Open science is an approach aimed at making scientific research more transparent, accessible and collaborative. In the spirit of fostering collaborative research and innovation which are the core goals of Horizon Europe

https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/out-now-your-guide-open-science-horizon-europe-2024-09-03_en

Open Science Open Access

Mandatory for Horizon Projects

- Scientific publications
- Research data

1. Opt out for legitimate reasons
2. Enhances innovation capacity
3. Validates research results and data

1. As open as possible, as closed as necessary
2. Not about making results free for commercial use
3. Science publications immediate access in trusted repositories

OPEN SCIENCE Research data management

1. Research data managed responsibly
2. Deposit data asap
3. Supplementary (hów to) information
4. Metadata must be open

1. Findable Accessible Interoperable Reusable FAIR
2. Trusted repository, open access, open as possible closed as necessary
3. Methodology, tools, hardware, software need for reuse or validation
4. Under CC, FAIR, Opt out if legitimate interest

Creative Commons

- Creative Commons licenses give everyone from individual creators to large institutions a standardized way to grant the public permission to use their creative work under copyright law. From the reuser's perspective, the presence of a Creative Commons license on a copyrighted work answers the question, *What can I do with this work?*

- https://creativecommons.org/share-your-work/cclicenses/

Creative Commons

- CC-BY Attribution
- CC-BY-SA Attribution, same terms adaptations
- CC-BY-NC Attribution, non commercial
- CC-BY-NC-SA Attribution, same terms adaptations, non commercial
- CC-BY-ND Attribution, no derivatives
- CC-BY-NC-ND Attribution, non-commercial, no derivatives
- CC0 Creator waives all rights

Creative Commons

- **The licenses and CC0 cannot be revoked.** This means once you apply a CC license to your material, anyone who receives it may rely on that license for as long as the material is protected by copyright, even if you later stop distributing it.
- **You must own or control copyright in the work.** Only the copyright holder or someone with express permission from the copyright holder can apply a CC license or CC0 to a copyrighted work. If you created a work in the scope of your job, you may not be the holder of the copyright.

Licence or license?

- Licence - noun
- License - verb

https://www.picserver.org/highway-signs2/l/licence.html
https://www.picserver.org/highway-signs/images/license.jpg

- Open Science
- Open Innovation
- Open Source
- Open Access
- Open Data

≠

- "Free" for commercial use
- No IPR Issues

Roadmap

What is IP?

What is Open? Kinds of “openness”

IP *cf* Open Science

Secrecy vs disclosure

IP sharing Closed vs Open

Scholarly publishing

Patent system – probably the origin of open innovation

Open – (Lat. Patere – open)

“it´s patently obvious”

Japanese - Kokai – laid open

Patent system: open innovation

- Inventions having technical effect
  - Ultimately based on scientific principles
- “Deal” inventor/applicant/patent authority
  - Warning, public service, stimulus
- Protection in return for publication

Patent publications

- Enabling disclosure
  - Definitive (clear?), unambiguous, legal certainty
- Technical, legal, commercial, information

Patent publications copyright (1)

- Copyright owned by applicant (not inventor not attorney)
- But copying for purposes of disseminating information NOT infringement of copyright
- Attribution

Patent publications copyright (2)

- Copyright owned IPO
- IPO waives right to allow free dissemination of information
- Attribution

Open Science *cf* IP

- Open Science data
  - FAIR
- Findable
- Accessible
- Interoperable
- Reusable

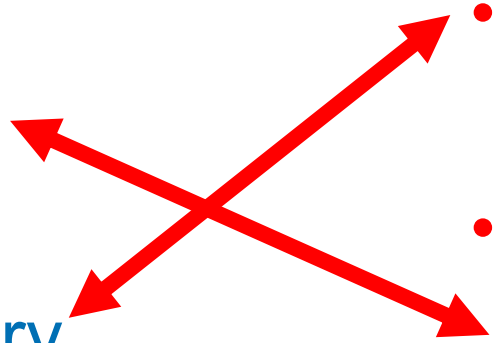
- IP (e.g.) EPO data
  - ACTUS
- Accurate
- Complete
- Timely
- Useable

Wilkinson, M., Dumontier, M., Aalbersberg, I. et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci Data 3, 160018 (2016). https://doi.org/10.1038/sdata.2016.18

Nigel S. Clarke Oct 2024

Open Science *cf* IP

- **Open Science**
- Open as possible
- Closed as necessary



- **Patents**
- Filing, Search examination
- Patent Application
  - Substantive examination
- Grant
  - And beyond

IP and Open Science – no conflict

As open as possible, as closed as necessary…
…a cautionary tale

Dodging the pitfalls when commercialising research

The Muscle Growth Factor Story

- Academic 30 years research in MGF – filed patent applications
- Pharma company invested through the university´s TTO and spinout company
- University hired academic as a consultant with pharma company´s investment
- After 9 months pharma company withdrew funding – labs closed – mice killed
- Patent applications unlikely to be granted
- (Academic had published work at a conference)

https://www.chemistryworld.com/careers/dodging-the-pitfalls-when-commercialising-research/3006792.article

The catalysts for cleaner fuels story

- Academic spin out
- Manager brought in early
- Business plan drafted
- Market identified
- IP protected
- Partnerships – IP licensed

https://www.chemistryworld.com/careers/dodging-the-pitfalls-when-commercialising-research/3006792.article

Lessons to be learned

1. **Don’t assume the same approach will work in every situation.**
2. **Don’t think you can do it all yourself.**
3. **Don’t be a one hit wonder.**
4. **Don’t assume your idea will sell itself.**
5. **Don’t move too early.**
6. **Use your institution’s knowledge transfer office cautiously.**
7. **Be very clear about who owns the IP and what it is worth.**
9. **Don’t go anywhere.**

Open culture meets IP law

Paris Convention 1883……

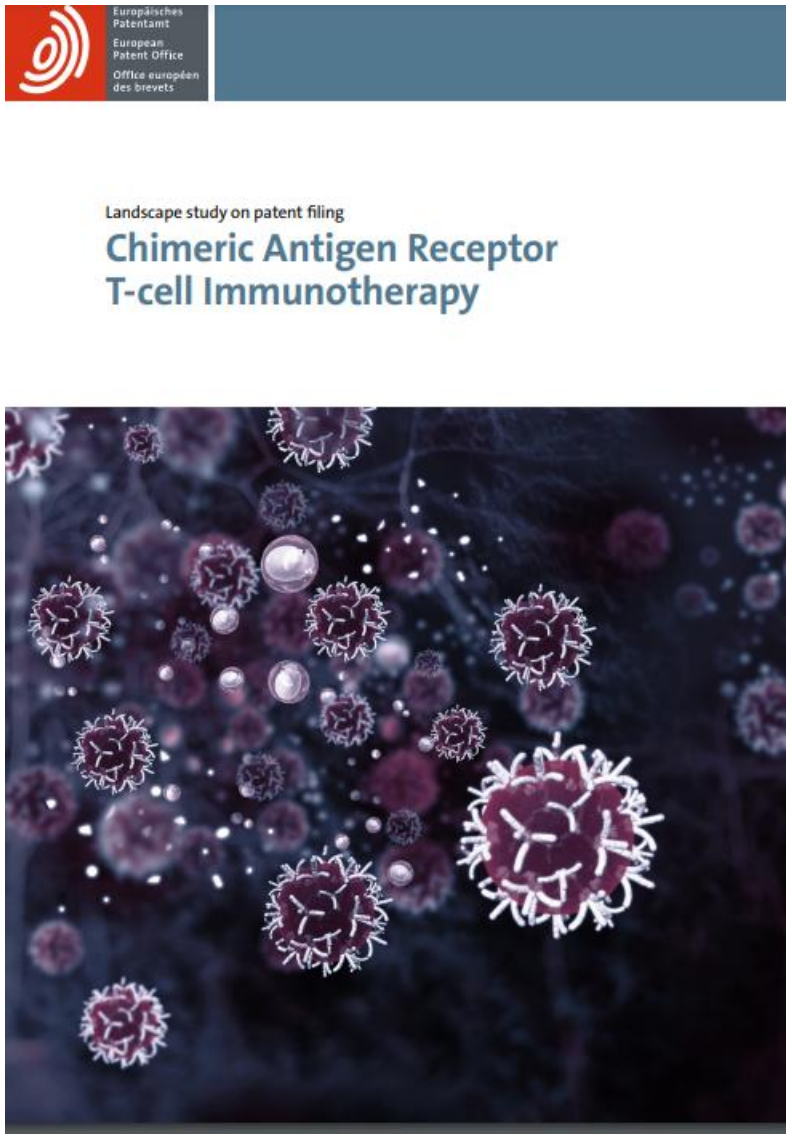
….[a signatory patent office] shall publish an official periodical journal. It shall publish regularly: (a) the names of the proprietors of patents granted, with a brief designation of the inventions patented ; (b) the reproductions of registered trademarks.

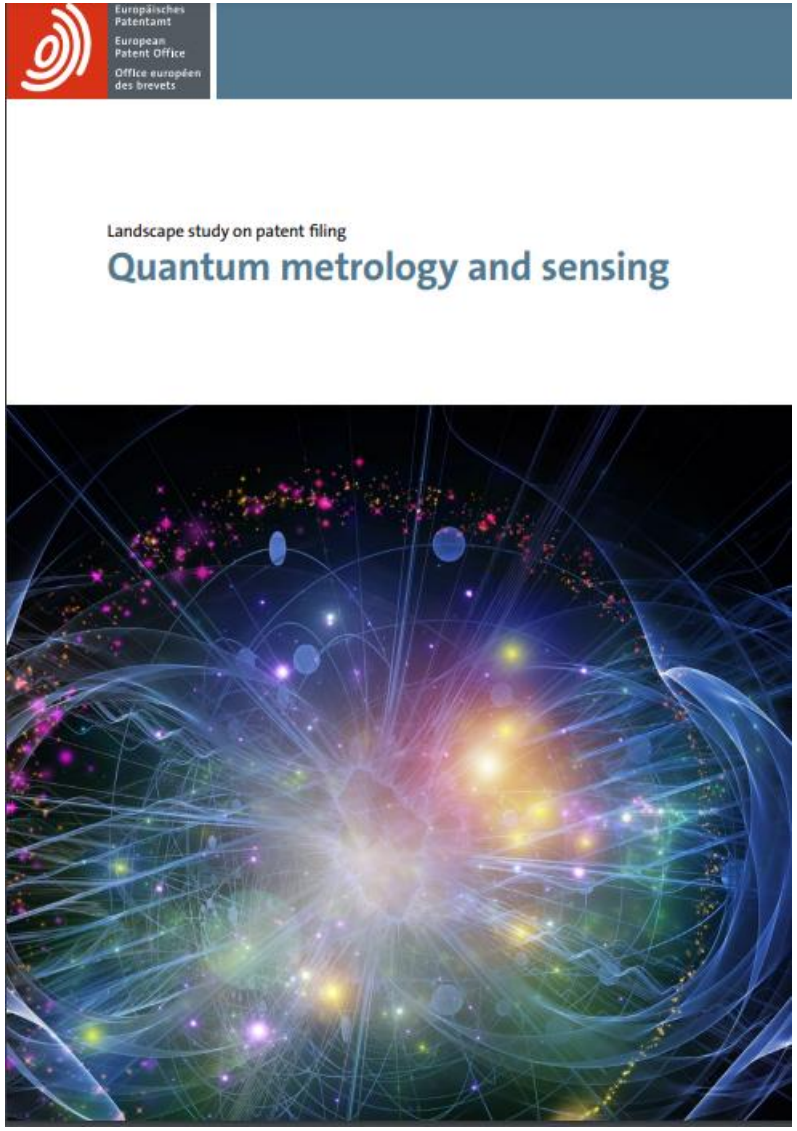
But not required to disseminate

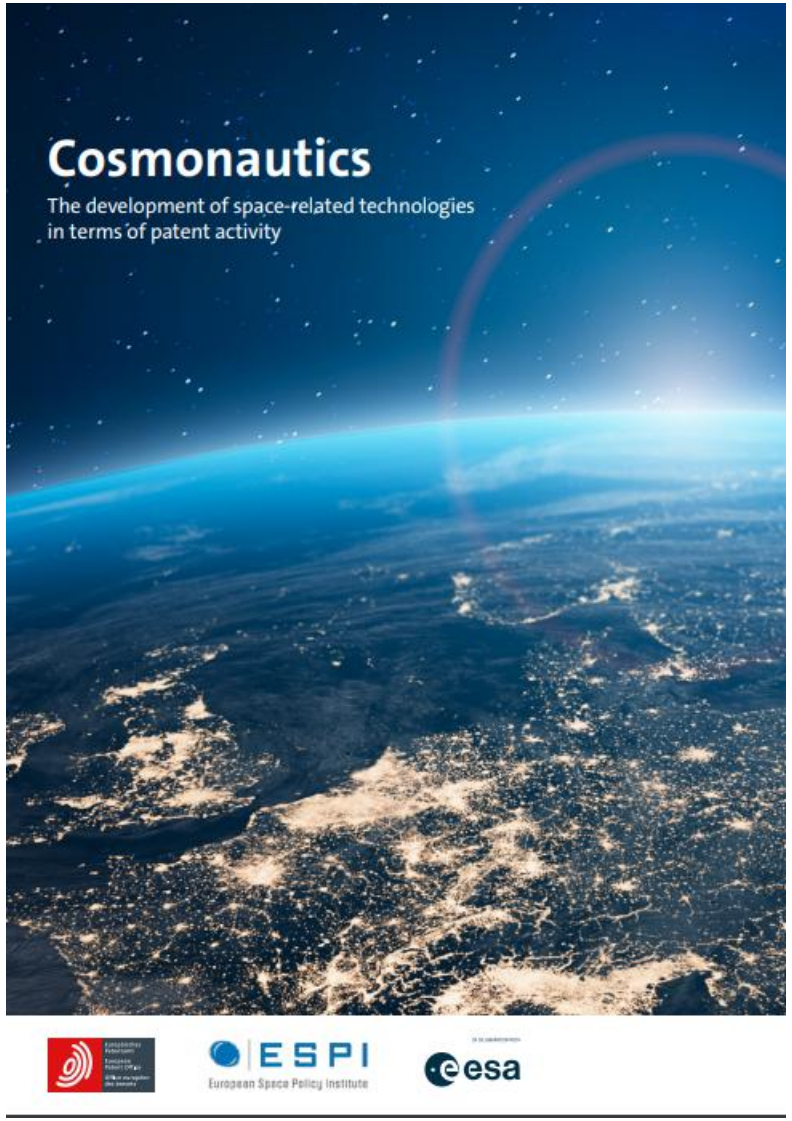
Example: EPO Patent data/information

- Espacenet — Worldwide patent database
- Publication server — EP and EuroPCT published by EPO
- European Patent Register — Legal status EP and EuroPCT
  - Global Dossier, Federated Register, ECLI
- Common Citation Document — Family member citations

- GPI
- PATSTAT
- OPS
- Raw data products
- IPScore


Europäisches Patentamt
European Patent Office
Office européen des brevets
Landscape study on patent filing
Chimeric Antigen Receptor T-cell Immunotherapy


Europäisches Patentamt
European Patent Office
Office européen des brevets
Landscape study on patent filing
Quantum metrology and sensing


Cosmonautics
The development of space-related technologies in terms of patent activity
ESPI
European Space Policy Institute
esa

Example: EPO Patent insight reports - metadata

- “supplementary information”
- Search strategy
- Dataset
- Allows third parties to repeat, adapt, improve

https://www.epo.org/searching-for-patents/business/patent-insight-reports.html

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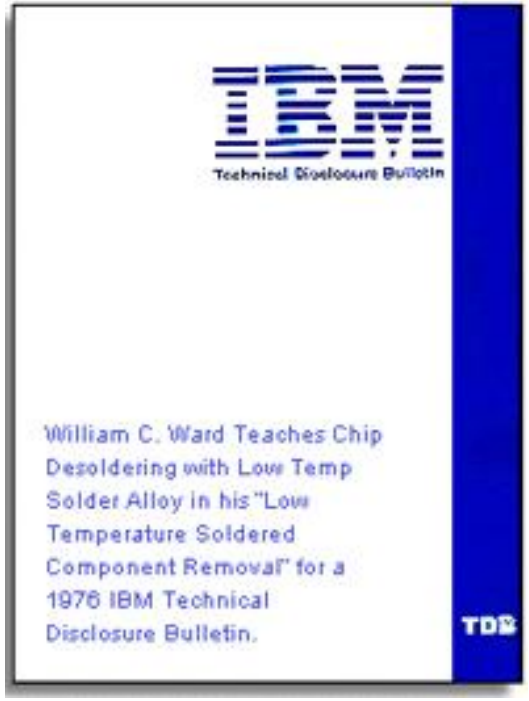
Main class	Scheme	Definition
General:		
G06N10	IPC/CPC	Quantum computers, i.e. computer systems based on quantum-mechanical phenomena
G06N99	IPC/CPC	COMPUTER SYSTEMS BASED ON SPECIFIC COMPUTATIONAL MODELS - Subject matter not provided for in other groups of this subclass
B82Y10	IPC/CPC	Nanotechnology for information processing, storage or transmission, e.g. quantum computing or single electron logic
Superconducting qubits:		
H01L27/18	IPC/CPC	Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate ...including components exhibiting superconductivity
H01L39	IPC/CPC	Devices using superconductivity; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof
Magnetic spin based devices		
H01L27/22	IPC/CPC	Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate ...including components using galvano-magnetic effects, e.g. Hall effects; using similar magnetic field effects
H01L43	IPC/CPC	Devices using galvano-magnetic or similar magnetic effects; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof
General semiconductor arrangements exploiting quantum effects		
H01L29/66	IPC/CPC	Semiconductor devices adapted for rectifying, amplifying, oscillating or switching, or capacitors or resistors with at least one potential-jump barrier or surface barrier...Types of semiconductor device
H01L29/66439	CPC	Unipolar field-effect transistors...with a one- or zero-dimensional channel, e.g. quantum wire FET, in-plane gate transistor [IPG], single electron transistor [SET], striped channel transistor, Coulomb blockade transistor
H01L29/76	IPC/CPC	Unipolar devices , e.g. field effect transistors
H01L29/7613	CPC	Unipolar devices , e.g. field effect transistors...Single electron transistors; Coulomb blockade devices
H01L29/12	IPC/CPC	Semiconductor bodies ; Multistep manufacturing processes therefor...characterised by the materials of which they are formed
H01L29/122	CPC	Single quantum well structures
H01L29/125	CPC	Quantum wire structures
H01L29/127	CPC	Quantum box structures
H01L49	IPC/CPC	Solid state devices not provided for in groups
H01L49/006	CPC	Quantum devices, e.g. Quantum Interference Devices, Metal Single Electron Transistor

[Defensive Publication]

Defensive Publication is a method to establish prior art by publishing details of an invention into the public domain, with the purpose to stop others obtaining a patent on the same invention.
The end goal is to ensure the right to practice the published invention.



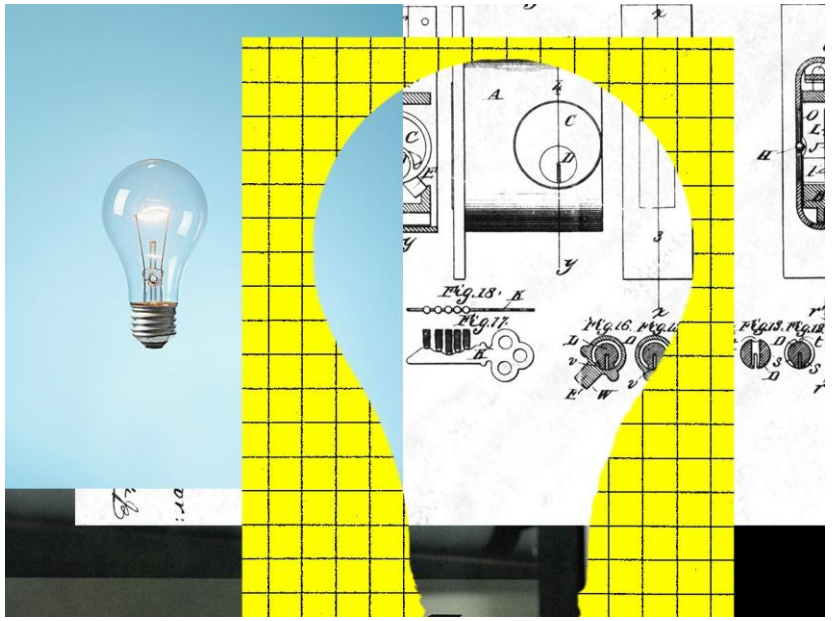
[Defensive Publication]

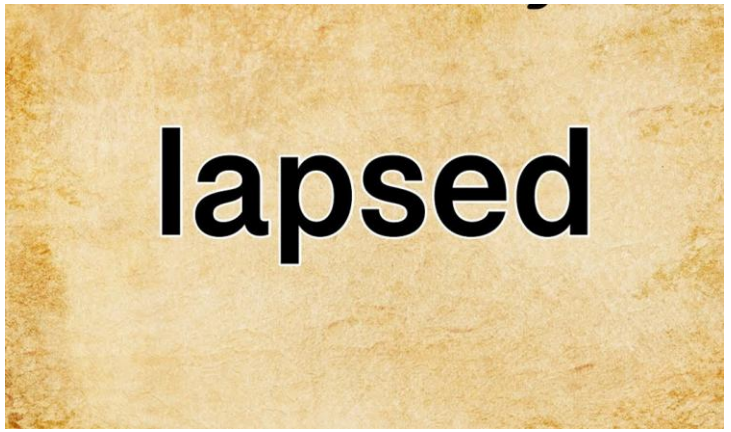
Questel

RESEARCH DISCLOSURE
www.researchdisclosure.com

Defensive Publication

introducing the strategy

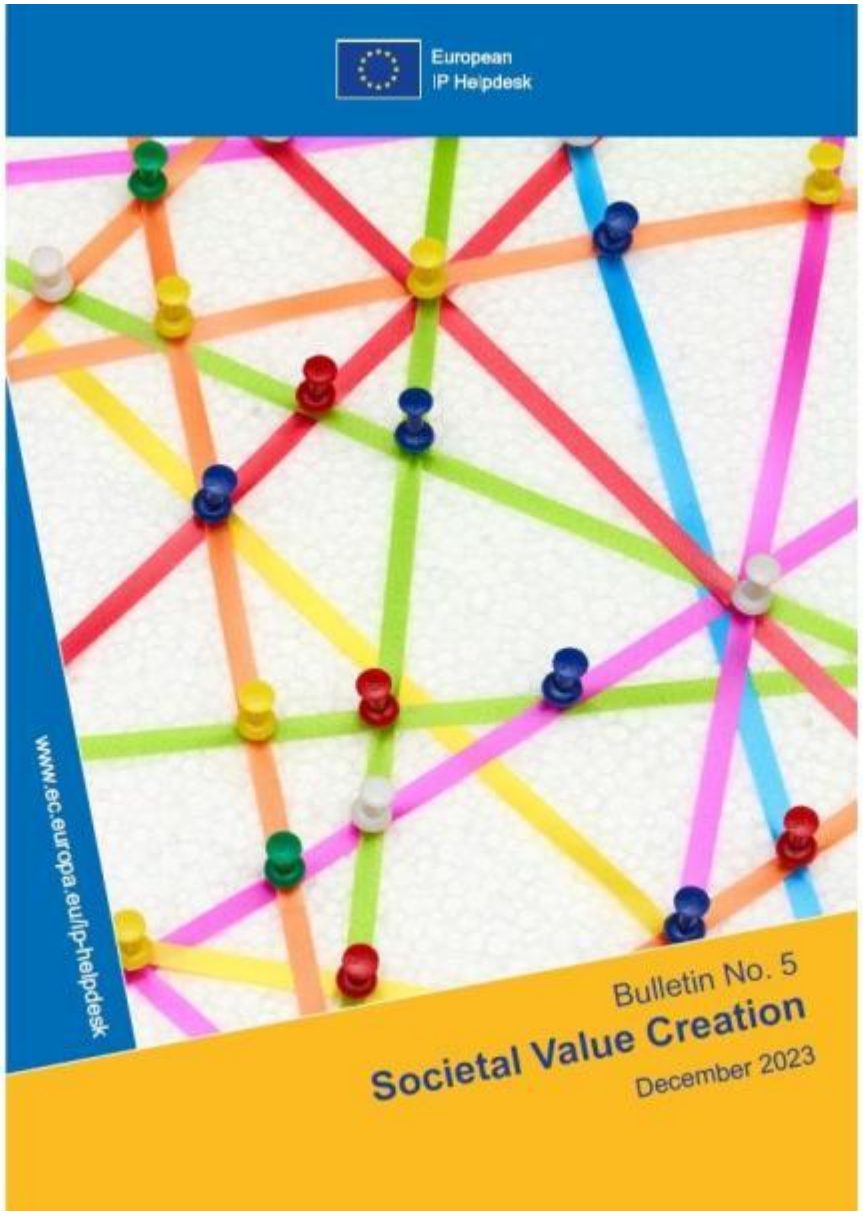



lapsed


EXPIRED
EXPIRED
EXPIRED

Denis Naughten TD
Referendum
Ireland
Unified Patent Court
Plea for use of lapsed/expired patents
Developing Countries

https://denisnaughten.ie/2024/03/14/what-is-the-patent-court-referendum-about/



Impact licensing, [is] an innovative licensing practice aimed at enhancing the reuse of intellectual assets for the benefit of society, [and]is a beneficial strategic instrument to bring technologies into societal markets in a scalable and sustainable way.

https://intellectual-property-helpdesk.ec.europa.eu/impact-licensing_en

Roadmap

What is IP?

What is Open? Kinds of “openness”

IP *cf* Open Science

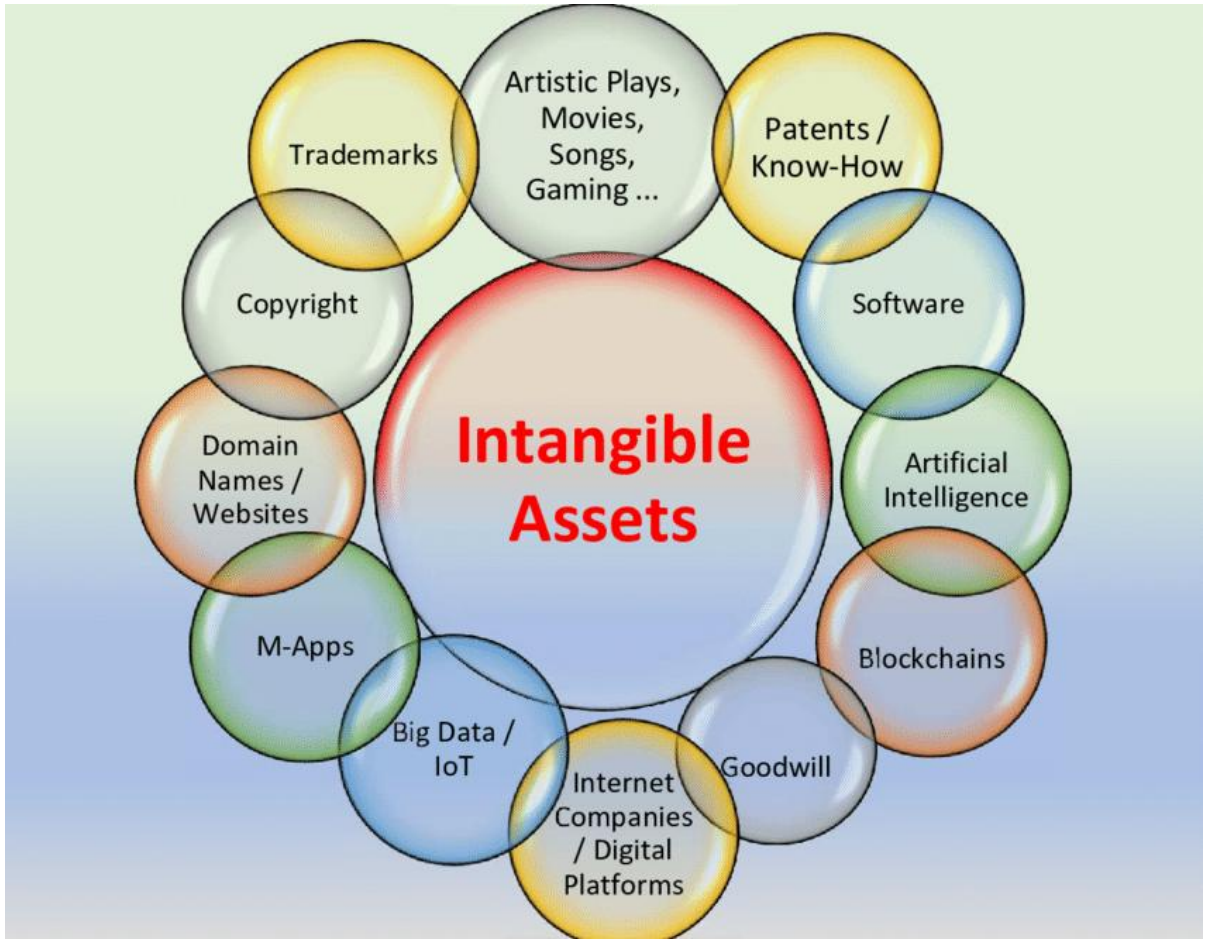
Secrecy vs disclosure

IP sharing Closed vs Open

Scholarly publishing

Sharing; secrecy vs disclosure

- Registered IP
- Trade secrets
- Confidential information
- Know- how
- Show- how
- Goodwill
-
-
-
-



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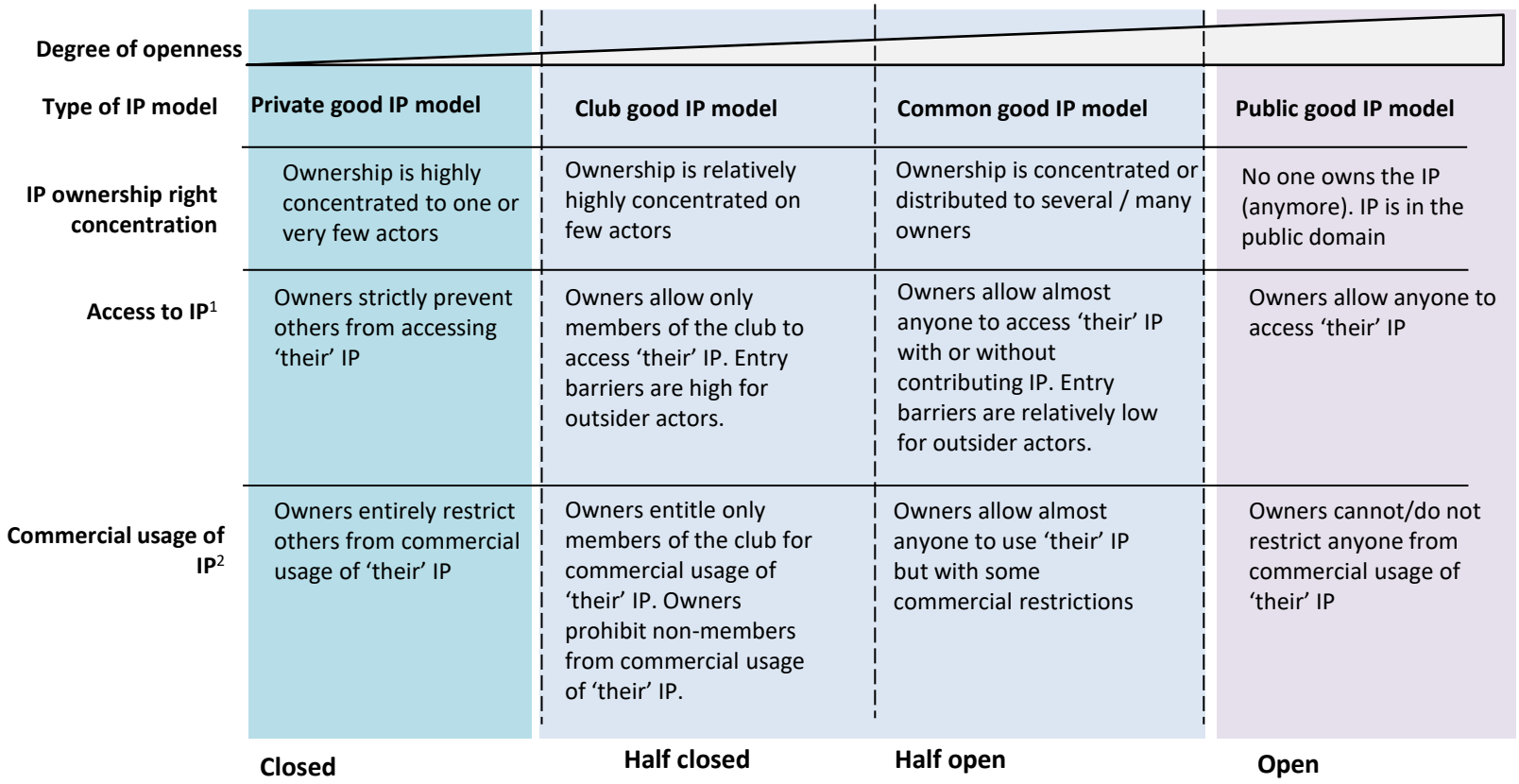


Closed, Semi-Open, or Fully-Open? Towards an Intellectual Property Strategy Typology Pratheeba Vimalnath Frank Tietze Elisabeth Eppinger Jan Sternkopf_ Academy of Management Annual Meeting Proceedings 2020(1):22070

Pratheeba Vimalnath, Frank Tietze, Akriti Jain, Anjula Gurtoo, Elisabeth Eppinger, Maximilian Elsen, **Intellectual property strategies for green innovations - An analysis of the European Inventor Awards,** Journal of Cleaner Production, Volume 377, 2022, https://doi.org/10.1016/j.jclepro.2022.134325

Sharing; “Closed” IP

Type of IP model	Private IP model
IP ownership right allocation	Ownership is highly concentrated to one or very few actors
Access to IP[1]	Owners strictly prevent others from accessing ‘their’ IP
Commercial usage of IP[2]	Owners entirely restrict others from commercial usage of ‘their’ IP

Closed IP model

Trade secrets ⟷ **Single owner IPR**

KFC
Herbs mix


3 Edison’s light bulb patent

Coca-Cola
Secret recipe of the cola

DSM
DSM Dyneema ® patent

Firms employing private IP models rigorously protect their IP, disclose as little IP as possible, vigilantly monitor, oppose and litigate others’ patent applications to prevent patents by third parties to potentially restrict them in using their IP (Chen et al., 2016).

Variance within the category is due to secrecy

[1] *https://allthatsinteresting.com/wordpress/wp-content/uploads/2016/03/edison-first-bulb.jpg*

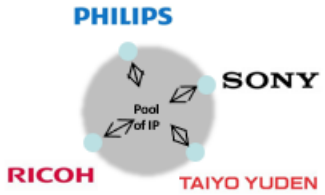
Sharing; “Half closed” IP

Type of IP model	Club IP model
IP ownership right allocation	Ownership is relatively highly concentrated on few actors
Access to IP[1]	Owners allow only members of the club to access ‘their’ IP. Entry barriers are high for outsider actors.
Commercial usage of IP[2]	Owners entitle only members of the club for commercial usage of ‘their’ IP. Owners prohibit non-members from commercial usage of ‘their’ IP.

Semi-open type 1 IP model

Bilateral IP sharing – unidirectional

Decentralized IP sharing – Patent Pool model

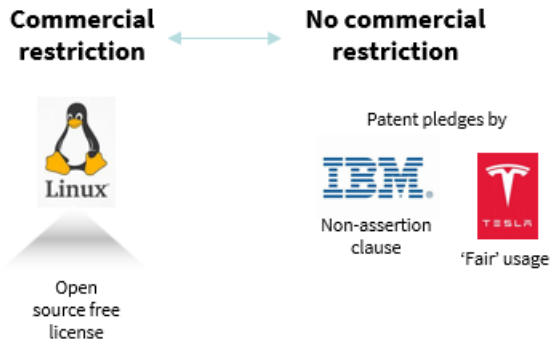


Patent pool to share IP for their rewriteable audio compact disc patents in the 1990s

Sharing; “Half open” IP

Type of IP model	Common IP model
IP ownership right allocation	Ownership is concentrated or distributed to several / many owners
Access to IP[1]	Owners allow almost anyone to access ‘their’ IP with or without contributing IP. Entry barriers are relatively low for outsider actors.
Commercial usage of IP[2]	Owners allow almost anyone to use ‘their’ IP but with some commercial restrictions

Semi-open type 2 IP model



Variance within the category is due to usage obligations and commercial restrictions

Sharing; “Fully open” IP

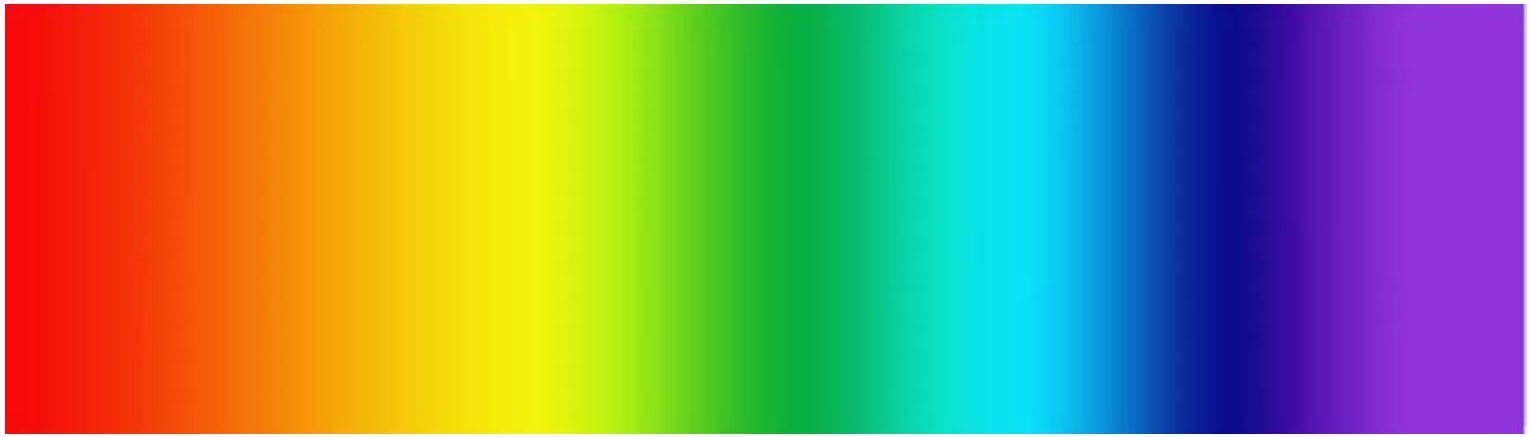
Type of IP model	Public IP model
IP ownership right allocation	No one owns the IP (anymore). IP is in the public domain
Access to IP[1]	Owners allow anyone to access ‘their’ IP
Commercial usage of IP[2]	Owners cannot/do not restrict anyone from commercial usage of ‘their’ IP

Fully open IP model

Expired/ abandoned patents ⟷ **Copyright expired publishing**

3

Variance within the category is due to ease of use of publicly available free IP



Closed	Half Closed	Half Open	Fully Open
Private	Club	Commons	Public

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Scholarly publishing

- Full open access – “gold”  All articles freely accessible. APC fee payable
- Hybrid  Authors´choice, subscription or open access
- Green  All articles freely accessible after self archiving
- Diamond/Platinum  APCs Sponsored; all articles freely accessible

https://www.igi-global.com/newsroom/archive/principles-open-access-movement-empowers/5394/

Scholarly publishing

https://www.budapestopenaccessinitiative.org/read/

Scholarly publishing

Transparent peer review to be extended to all of *Nature*'s research papers

https://www.nature.com/articles/d41586-025-01880-9

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