European IP Helpdesk

Stay ahead of the innovation game.

European IP Helpdesk
Ip Management in ICT

15.10.2024

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

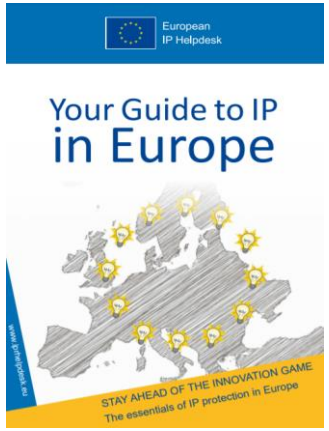
Publications
practical IP knowledge through high-level publications

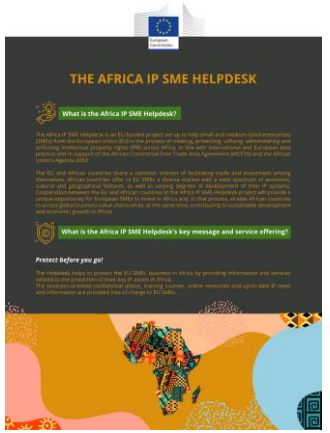
Ambassadors
local IP support throughout Europe

Events
info point at key networking events and conferences

The EC IP Helpdesks

EC IP (SME) Helpdesk Hub – Gateway to Information



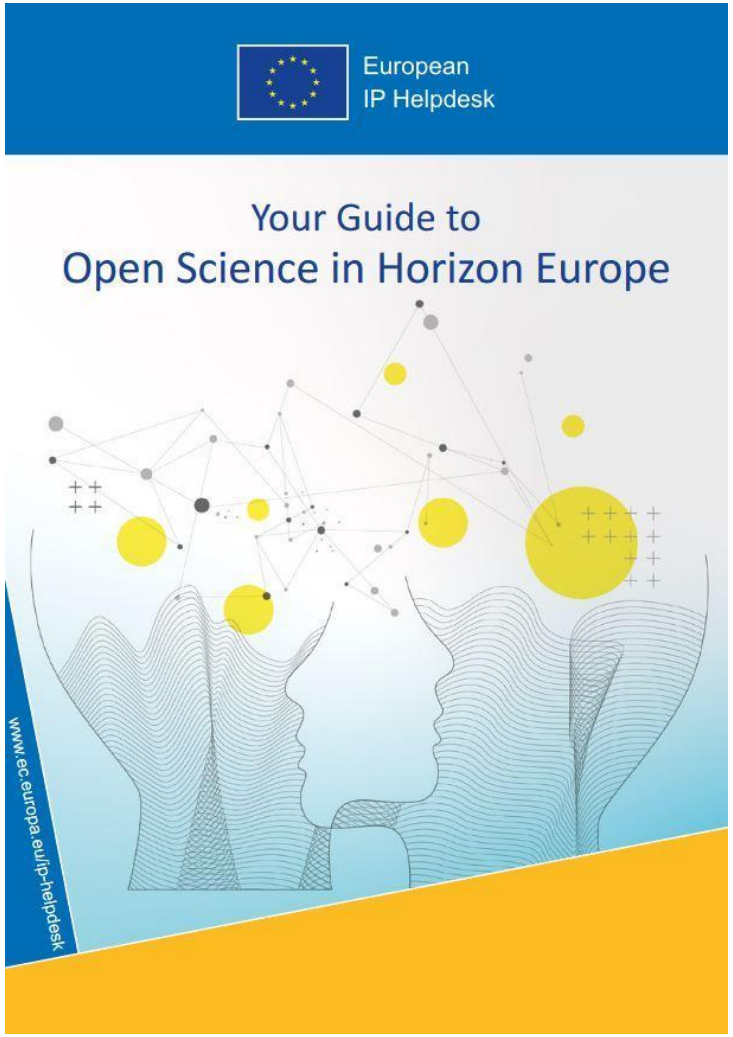


- E-learning modules & more
- Guides / Topic, country, sector-specific factsheets / Infographics
- Case studies

Out Now: Your Guide to Open Science in Horizon Europe

- Open science promotes transparency, accessibility, and collaboration in scientific research

- This Guide helps readers understand OS, offering explanations and guidelines for those preparing or already implementing a Horizon Europe project proposal.



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

Europa - Upcoming events

09 OCT 2024
Training and workshops
EU - Webinar: IP and Artificial Intelligence
Live streaming available

09 OCT 2024
Training and workshops
Coop: EIC & EPO Webinar: Licensing-based business models
Live streaming available

14 OCT 2024
Training and workshops
EU - Webinar: IP Commercialisation & Licensing - Advanced
Live streaming available

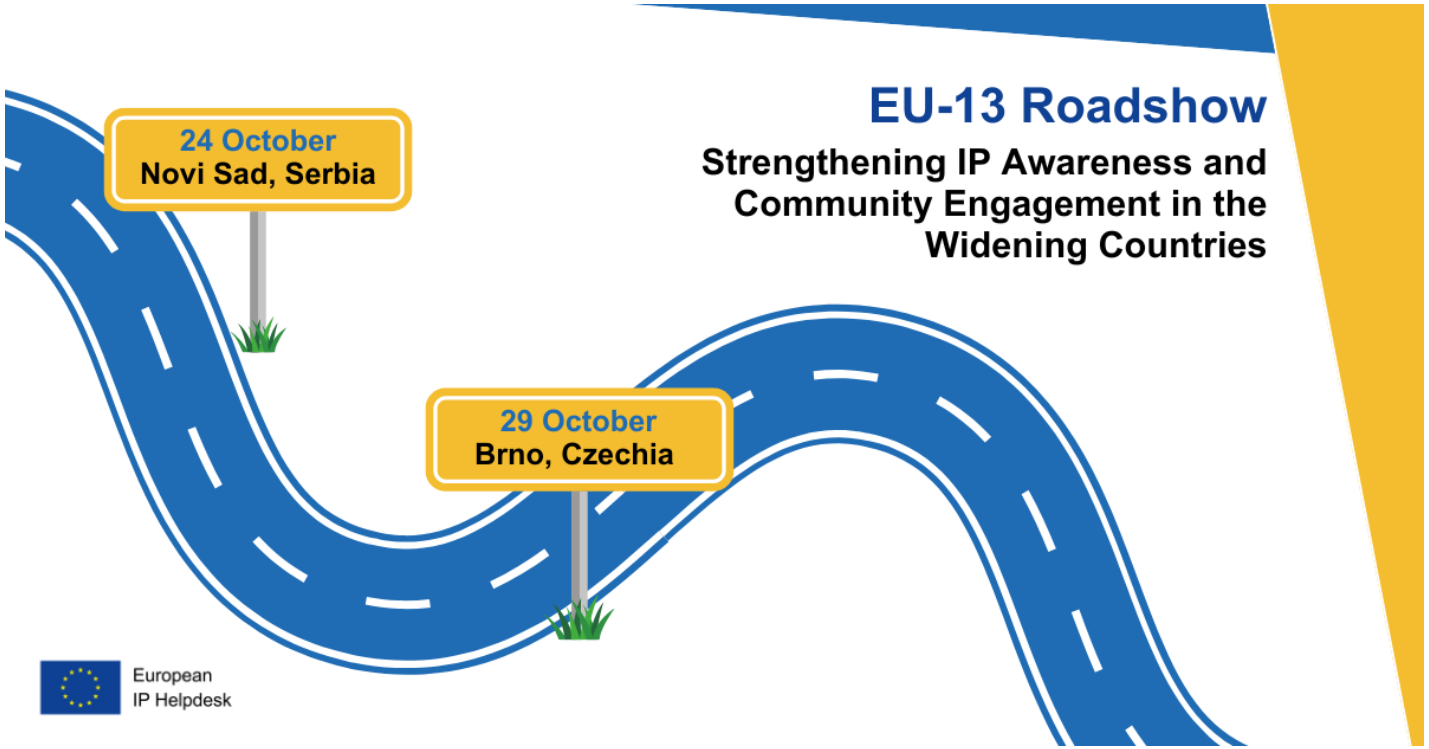
15 OCT 2024
Training and workshops
EU - Webinar: IP Management in ICT Projects
Live streaming available

21 OCT 2024
Training and workshops
EU - Webinar: Patents and Innovation
Live streaming available

22 OCT 2024
Training and workshops
EU - Webinar EPO Coop: Patent protection for EU funding beneficiaries - MedTech
Live streaming available

22 OCT 2024
Training and workshops
EPO Event: Patents and Innovation in European Universities
Live streaming available

24 OCT 2024
Training and workshops
EU-13 Roadshow: Strengthening IP Awareness and Community Engagement in the Widening Countries - Novi Sad
Novi Sad, Serbia



- Enhance the dissemination of IP-related knowledge
- Provide innovation support to SMEs, researchers, and EU beneficiaries from EU-13 and Widening countries.

Register for Novi Sad, Serbia

Register for Brno, Czechia

Thank you!

- www.ec.europa.eu/ip-helpdesk
- helpline@iprhelpdesk.eu
- training@iprhelpdesk.eu
- X @iprhelpdesk
- LinkedIn /european-ipr-helpdesk
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European IP Helpdesk

Stay ahead of the innovation game.

IP Management in ICT projects

Dr Eugene Sweeney, CEO, Iambic Innovation Ltd
Senior IP Advisor, European IP Helpdesk
es@iambicinnovation.com

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Today's speaker

Dr. Eugene Sweeney

- Over **25 years** experience with EC as **proposal evaluator and project reviewer**
- **Over 40 years in the ICT industry**
  - 1970's **Researcher – computer modelling/simulation**
  - 1978 First **start-up**: microcomputer software applications for engineers
  - 1980's Computer **industry:** Developing, sourcing and taking new ICT technologies to market
  - 1990's Early stage technology/IP **investment and commercialisation**: Focus on **ICT**
  - 2000 - Formed Iambic Innovation Ltd: **Consultancy** in Innovation, IPR and research exploitation
- Member of International (ISO) and European (CEN) Standards Committees on **Innovation Management and IP Management**
- Member of Licensing Executive Society

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WHAT'S SPECIAL ABOUT ICT?

AND WHAT ARE THE IP ISSUES?

ICT is ..

All-pervasive	• **Any time, any place, any device, any sector**
Critical	• ICT controls critical infrastructures
Horizontal	• usually an essential component in other innovations, whatever sector

ICT is…

Dependent	• **Relies on** other technologies, systems or data
Cumulative	• **Based on** pre-existing components, integration, derivatives • Can be combined in different ways to create new products and services
Convergent	• **Takes advantage of** merging/converging technologies; e.g. Cloud, sensors, IoT, etc.

ICT is …

Global	• scalable
Trans-border	• Cloud, Internet, IoT, blockchain, AirBnB, etc.

ICT has many faces..

Different forms	• Hardware, software, comms, data
Can be delivered in many ways	• Product, service, infrastructure
More than technology	• Aesthetics, brands, marketing, etc

ICT is dynamic and disruptive

- It moves and changes **fast**
- **Can have short** life-cycles
- **New paradigms** and applications
- Highly **scalable** with high **potential**
- Sometimes needs **less capital**
- **Attractive for investors**

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IA MANAGEMENT IN COLLABORATIVE PROJECTS

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IP Management - Managing the KEY assets!

The 6 pillars of IP Management

IP Used
- **access and usage rights** for pre-existing and 3rd party IP
- **during AND after the project** (if needed for exploitation)

IP Generated
- How to capture
- Ownership
- **Who manages?**

Assess
- What and where are the opportunities

Protect
- Would protection help?
- If so, why, how, where and WHO?

Disseminate and Exploit
- Who to tell?
- What to tell?
- How to tell?
- How to transfer?
- **Exploitation pathways**

Post project
- IP and IPR management
- Dissemination and exploitation
- Post deal management

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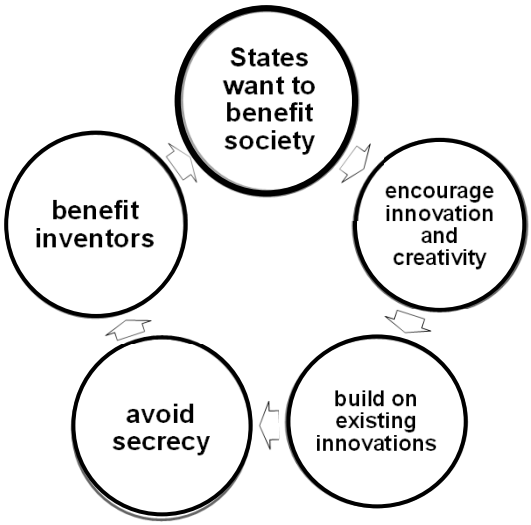
Why IP Rights?



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What is the deal?

legal right to prevent others using their creation (without agreement)

commercial purposes (only)

for a **limited period**

disclosing details

so others can develop new innovations

Who benefits?

The state by avoiding secrecy	➢ **Improves innovation capacity, stimulates innovation, enriches society**
The creator by being able to prevent unauthorised commercial use	➢ **Unless they come to an agreement (which may be financial)**
Commercial partners from the limited monopoly	➢ **To get a return on investment**

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Many types of Intellectual Property (IP)

Products of the mind

Assets which can be traded

- *Inventions*
- *Software code*
- *New methods*
- *Manuals/Reports*
- *Designs (aesthetic/functional)*
- *Databases*
- *Works of art*
- *Music*
- *Videos*
- *Books*
- *Roadmaps*
- *etc*

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Many types of Intellectual Property Right (IPR)

- Patents
- Copyright
- Design Rights
- Database Rights
- Trade marks
- Plant Breeders Rights
- Utility Models/petty patents
- Plant varieties
- etc

Some legal rights come into existence automatically

Some need registration

Confidentiality Agreements (Know-how)

Secrets (Trade Secrets)

Time limited rights

National rights

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Don't confuse IP and IPR

Intellectual **Property**
key **assets**

Intellectual Property **Rights**
legal tools to support commercial exploitation

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PROTECTING ICT ASSETS

- **Patents**
- **Copyright**
- **Trademarks**
- **Design rights**
- **Database right**

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Obligation to protect the results

"Beneficiaries which have received funding under the grant must adequately protect their results for an appropriate period and with appropriate territorial coverage if protection is possible and justified, taking into account all relevant considerations, including the prospects for commercial exploitation, the legitimate interests of the other beneficiaries and any other legitimate interests."

Horizon Grant Agreement

If commercial

- **Should you protect it?**
- If so, **why**, **how** and **where**?

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Strategic decisions

Are there commercial opportunities? → Would IP protection support exploitation? → Benefits greater than costs? → If so, **invest!**

Assessment, protection and exploitation must be considered together

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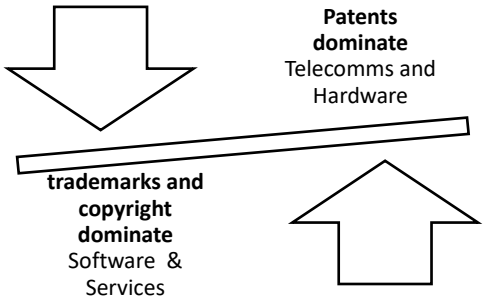
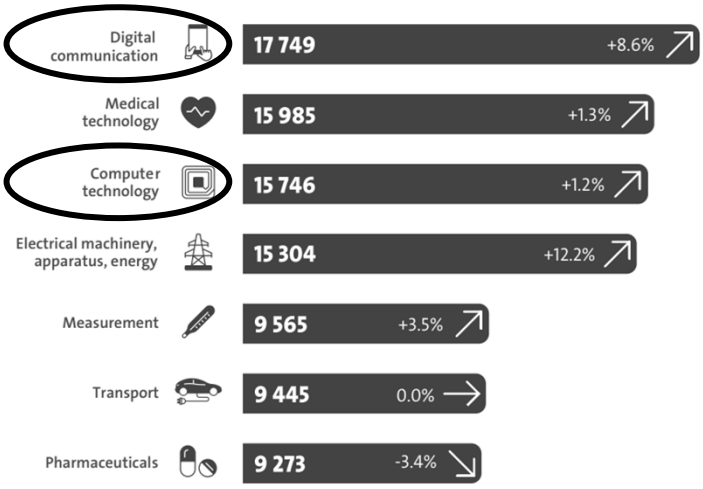
More than just patents!



JRC Report, "IP and Innovation in ICT", 2015

ICT Patents



Top technical fields based on European patent applications

Source: EPO Patent Index 2023

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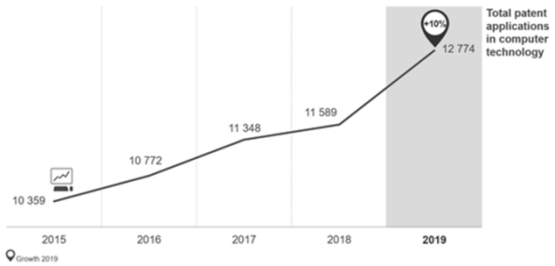
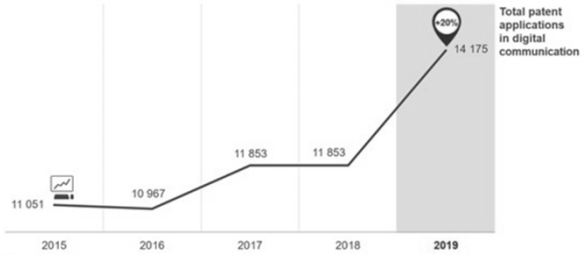
Sharp rise in ICT patents

Sharp rise – Total European patent applications[2] in computer technology



Total European patent applications[2] in digital communication



Source: EPO 2020

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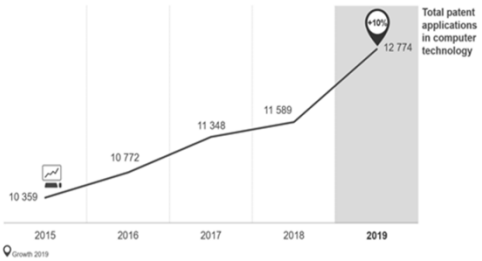
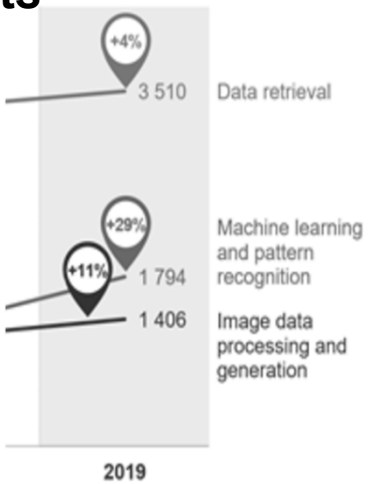
Many Software Patents

Sharp rise – Total European patent applications[2] in computer technology





33% of patent applications filed at the EPO in 2010 were intended to protect a computer-implemented invention (**software patents**)

(Fraunhofer/4iP, 2015)

From 2007-2011 nearly **50% of US lawsuits involved software-related patents**

(GAO, 2013)

Source: EPO 2020

What can you patent?

Almost anything of **technical character** that is not a mere discovery and is:

- **New/Novel** (not previously disclosed publicly)
- **Inventive** (not obvious to "one skilled in the art")
- **Industrially applicable/has a technical effect**
- **Sufficiently described**

What can't you Patent?

- **Computer programs** *(per se)*
- Scientific theories
- **Mathematical methods/algorithms**
- Aesthetic creations
- Schemes, rules and methods for performing mental acts
- Playing games or doing business
- Presentations of information

Some important exceptions in law and its interpretation in the USA and elsewhere

Software Patents in Europe..

European Patent Convention

Computer programs are not patentable	**software code**
Computer-implemented inventions are patentable	*"inventions whose implementation involves **the use of** a computer, a computer network or other programmable apparatus, **realised by means of a computer program** (i.e. software)"*
Needs to have a technical effect	not **business** or **financial**

Software Copyright

Copyrights protects the **expression** of the method **not the method** itself; for example:	• The code as such (source and binary) • Design material • User guides • Graphical elements such as icons
Comes into existence **automatically**	• so **keep good records** to prove date of creation.
Lasts **at least 50 years**	• national variations

Software patent *OR/AND* Software copyright

Patent

(19) Europäisches Patentamt European Patent Office Office européen des brevets

(11) EP 2 097 841 B1

(12) EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent: 25.06.2014 Bulletin 2014/26

(21) Application number: 07824443.1

(22) Date of filing: 05.11.2007

(51) Int Cl.: G06F 17/50 (2006.01)

(86) International application number: PCT/GB2007/004206

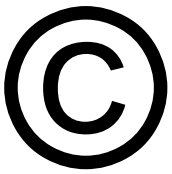
(87) International publication number: WO 2008/053239 (08.05.2008 Gazette 2008/19)

(54) POLYNOMIAL SYNTHESIS
POLYNOM-SYNTHESE
SYNTHÈSE POLYNOMIALE

(84) Designated Contracting States: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

• JABIR A M ET AL: "MODD: a new decision diagram and representation for multiple output binary functions" DESIGN, AUTOMATION AND TEST IN EUROPE CONFERENCE AND

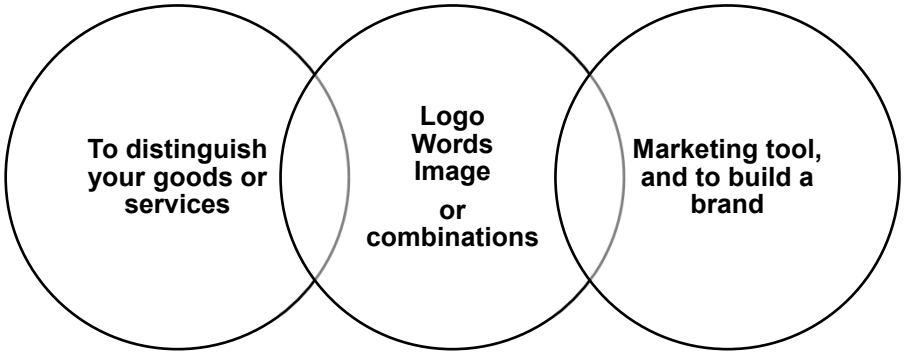
Copyright



What it <u>does</u> (regardless of how expressed)

What it <u>is</u> (its expression)

Trademarks



Brands can be Valuable!!

Amazon	60% growth
Microsoft	53% growth
Spotify	52% growth
Netflix	41% growth
Adobe	41% growth
PayPal	38% growth
Apple	38% growth
Salesforce.com	34% growth
Nintendo	31% growth
MasterCard	17% growth

Biggest risers

01 Apple +38% 322,999 $m	02 Amazon +60% 200,667 $m	03 Microsoft +53% 166,001 $m	04 Google -1% 165,444 $m	05 Samsung +2% 62,289 $m
06 Coca-Cola -10% 56,894 $m	07 Toyota -8% 51,595 $m	08 Mercedes -3% 49,268 $m	09 McDonald's -6% 42,816 $m	10 Disney -8% 40,773 $m
11 BMW -4% 39,756 $m	12 Intel -8% 36,971 $m	13 Facebook -12% 35,178 $m	14 IBM -14% 34,885 $m	15 Nike +6% 34,388 $m
16 Cisco -4% 34,119 $m	17 Louis Vuitton -2% 31,720 $m	18 +12% 28,011 $m	19 New 26,060 $m	20 Honda -11% 21,694 $m

Source Interbrand ***Best Global Brands 2020***

Database Rights

- Copyright protects the contents
- Database right protects the collection if there has been a "substantial investment" in obtaining, verifying or presenting the contents of the database.

Obligation to exploit the results

"Beneficiaries which have received funding under the grant must — up to four years after the end of the action — use their best efforts to exploit their results directly or to have them exploited indirectly by another entity, in particular through transfer or licensing."

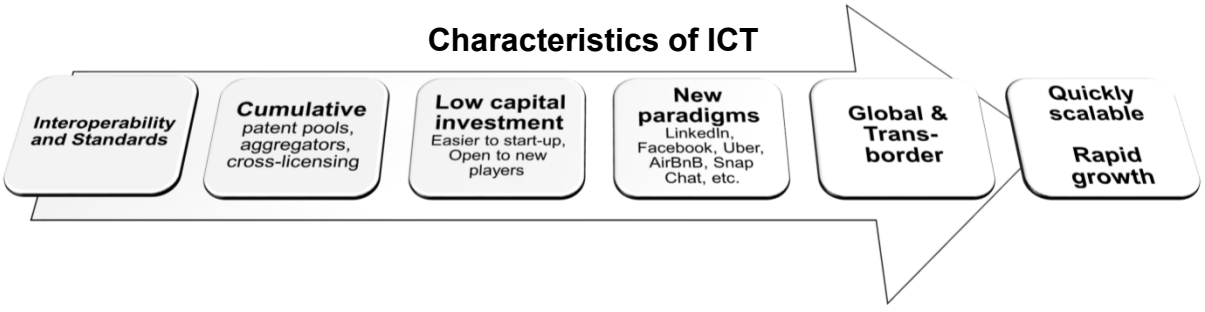
Horizon Grant Agreement

Issues to consider when commercialising ICT

Wide variety of business models

Open/free	Product or service	Per use/seat	one-off fee	subscription based	ad based	voluntary contributions	community supported	etc.

Characteristics of ICT



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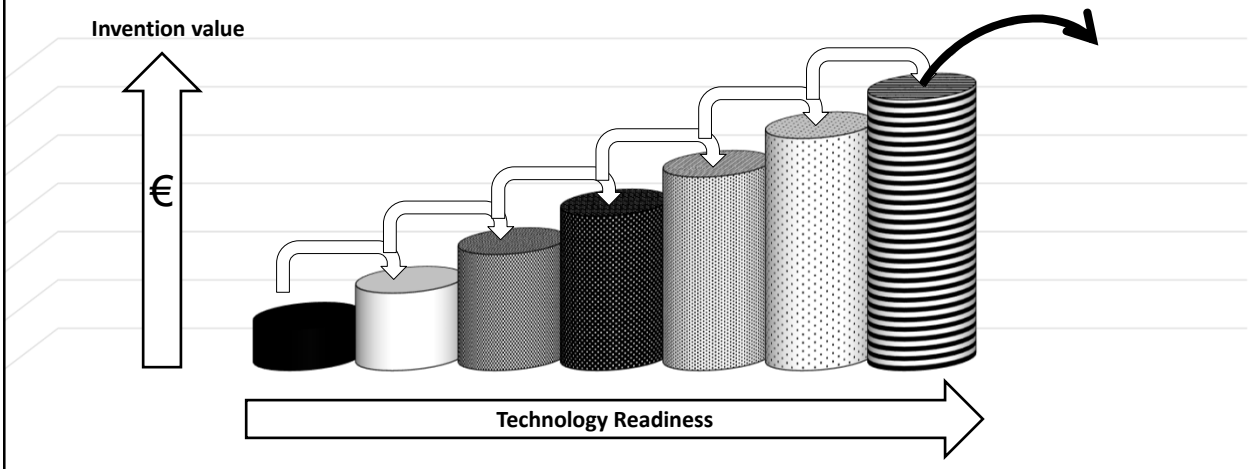
How far do you want to go?



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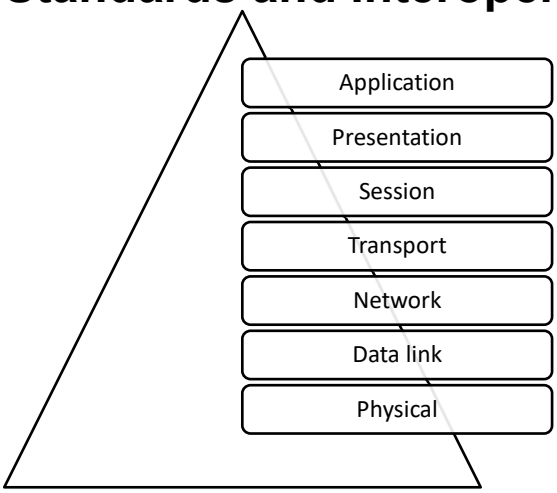
Standards and Interoperability



Open Systems Interconnection model (OSI model)

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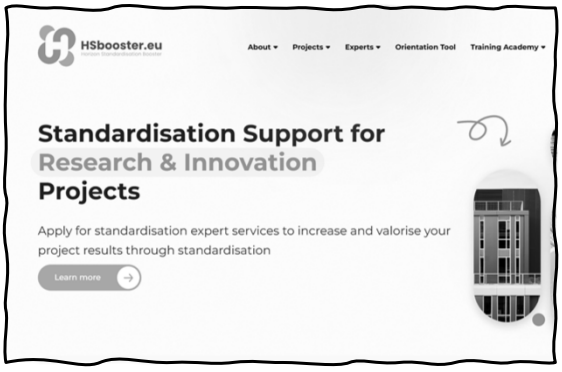
ISO/IEC 21823-1:2019
Internet of things (IoT) — Interoperability for internet of things systems — Part 1: Framework

ISO/IEC 21823-1:2019(E) provides an overview of **interoperability** as it applies to IoT systems and a framework for interoperability for IoT systems. This document enables IoT systems to be built in such a way that the entities of the IoT system are **able to exchange information and mutually use the information** in an efficient way. This document enables **peer-to-peer interoperability between separate IoT systems**. This document provides a common understanding of interoperability as it applies to IoT systems and the various entities within them.

Status : Published
Publication date : 2019-02



COMMISSION RECOMMENDATION (EU) 2023/498

of 1 March 2023

on a Code of Practice on standardisation in the European Research Area

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Whereas:

(1) Standards help researchers and innovators bring their innovation closer to the market and spread technological advances by establishing uniform criteria and by developing methods, practices and procedures which are publicly available in a formal document. European and international standards provide access to large global and regional markets for innovative new products and services.

(2) Standards offer a basis for the integration of diverse technologies into complex, innovative systems and solutions, and enable interoperability between components, products and services thereby avoiding vendor lock-in and providing more choice for customers globally – a critical role in a world undergoing digital transformation across all industries and sectors.

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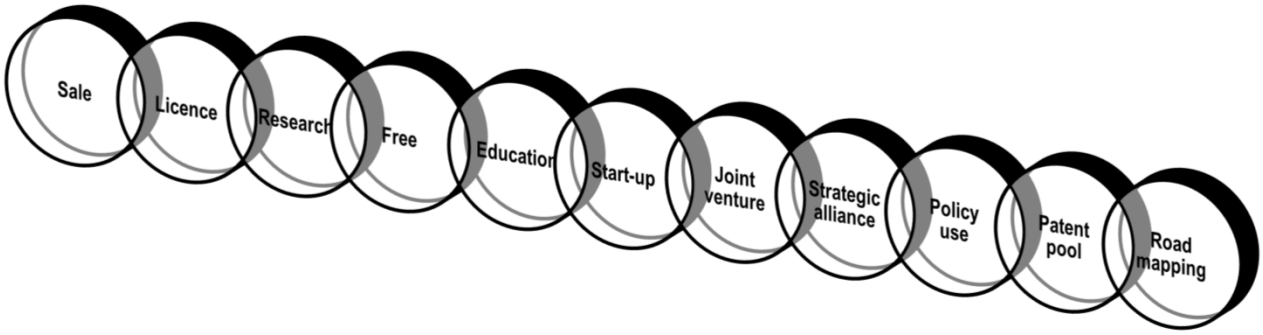
Exploitation Strategies

Like physical property**, intellectual property is a valuable asset** which can be **traded** – bought, sold or leased, given away free, used in JV's, as collateral, etc…

But, **many more ways of extracting value**…



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Licence or New Venture?

Licence	New Venture?
Licensee has expertise and resource	New Company must acquire expertise and resource
Can address different fields of use and geographical areas	Needs a critical mass of expertise and a committed and enthusiastic team
Established markets & suppliers	New markets for new suppliers
Evolutionary/incremental technology	Revolutionary or platform technology
The IP fits a gap in someone else's portfolio	Delivers a unique business advantage
Low financial commitment – less risk	Needs capital - more risk
Early returns – may grow over time	Returns take longer – but could be large

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ICT ventures

VC funds investing heavily in favour of ICT	Drive for **capital growth** rather than profitability
Investors don't wait around….	ICT has **rapid growth** potential
New paradigms, low capital investment and rapid growth	make **ICT start-ups attractive for investors**

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Licensing (in general)

Granting right to use your property under agreed terms and conditions

IP Helpdesk Webinar "IP Commericalisation and Licensing"

- Field of use
- Geographic territory
- To validate not sell
- etc

European IP Helpdesk Bulletin No.1 - IP Licensing

http://www.iprhelpdesk.eu/sites/default/files/newsdocuments/bulletin/01/IP-H_b01_content-3.html

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Open Source Licences

Just another type of licence!

- Usually **requires source code** to be made available
- **Many different versions** and variations
- **Beware** clauses which affect commercial use

Good for

- building **community** of developers and users

Needs management – how will it be funded?

How will it be **sustainable?**

Choose **only if appropriate** and can be **justified**

not "policy" or "ideology" decision

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Business models for Open Source

Must provide **source for free**	• Can charge for executable, added value services or products (e.g. training or toolkits)
Added value **services and products** may be supplied	• Software freely available under OSS licence • Support contract or consultancy services may be purchased from owner or **third parties**
Someone must **manage and sustain**	• Quality and validation • New releases into community • Build and sustain community
Beware **too many "forks"**	• Detrimental to building critical mass in the community, and "brand" identity and commercial success

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Business models for Open Source

Must provide **source for free**	• Can cha… executable, ad… e services or produ… g or to…
Added value **services and products** may be supplied	• So… • Su… …ay be pur…
Someone must **manage and sustain**	• Quality an… • New releases… • Build and sus…
Beware **too many "forks"**	• Detrimental to bu… mass in … nity, and "brand" identity and commercial success

Why Open Source?

How will costs be covered?

How will it be managed?

How will it be sustainable after the project ends?

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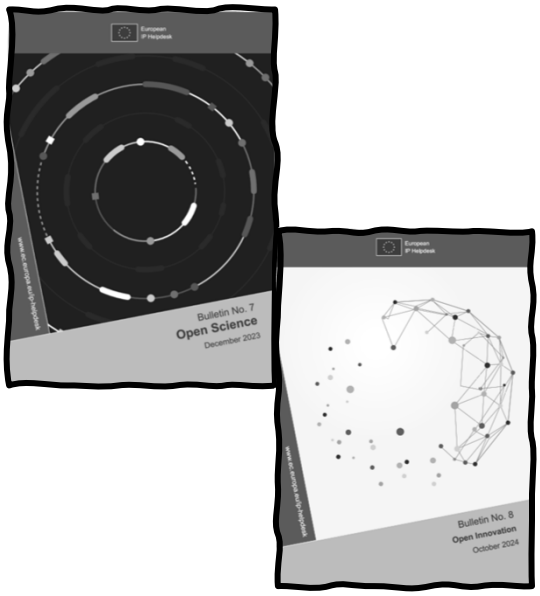
More information….

More on software licensing, Incl: **Open Source**	• IP Helpdesk Webinar ***"IPR and Software"***
More on other **Open things**	• IP Helpdesk Webinar ***"Open Science"*** • IP Helpdesk Bulletin No 1 (Dec 2023) ***"Open Science"*** • IP Helpdesk Bulletin No 7 (Oct 2024) ***"Open Innovation"***



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More Help…

"Knowledge Valorisation in R&I Collaborations" Thematic Package from IP Helpdesk

- **Successful Valorisation of Knowledge and Research Results in Horizon Europe**
- **Your Guide to Intellectual Property Management in Horizon Europe**
- **Article: Leveraging Innovation Through Collaboration - IP Challenges And Opportunities For SMEs In The Context Of EU-Funded Collaborative Research Projects**

Knowledge Valorisation in R&I Collaborations (europa.eu)

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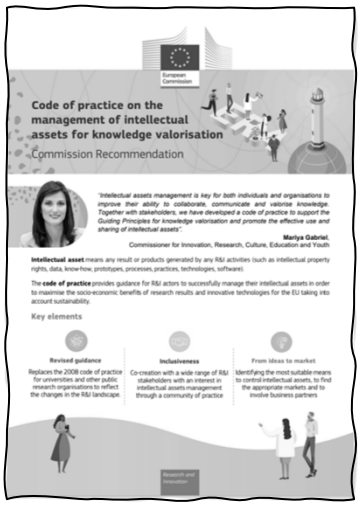
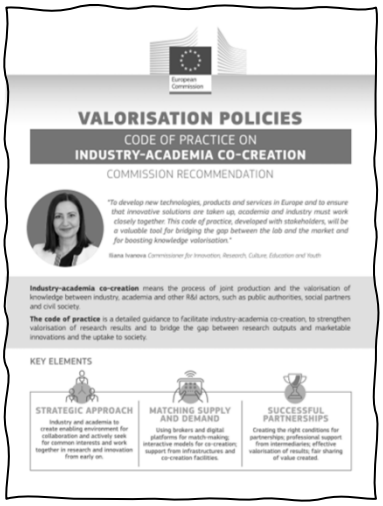


5 March 2024



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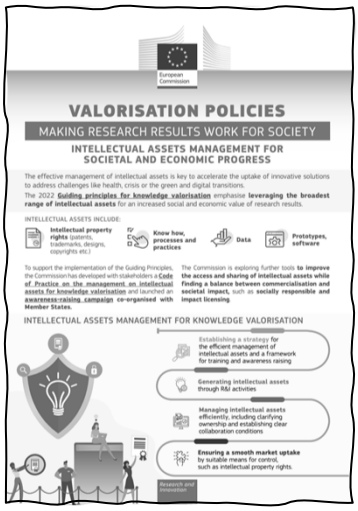

7 May 2024

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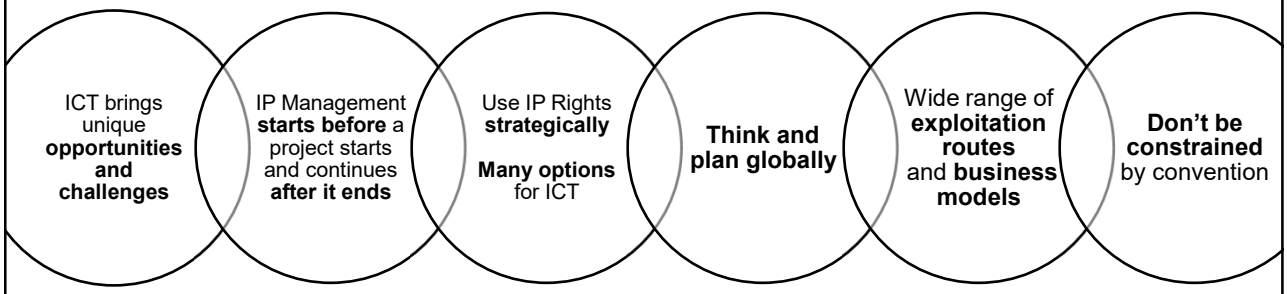
Summary



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