European IP Helpdesk

Stay ahead of the innovation game.

European IP Helpdesk
IP Management in ICT Projects

25.02.2025

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
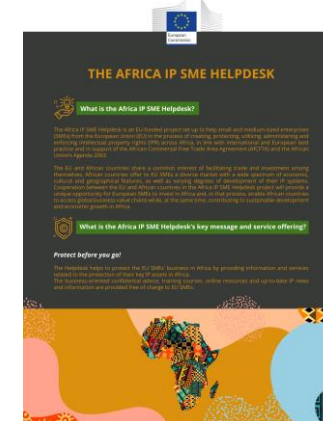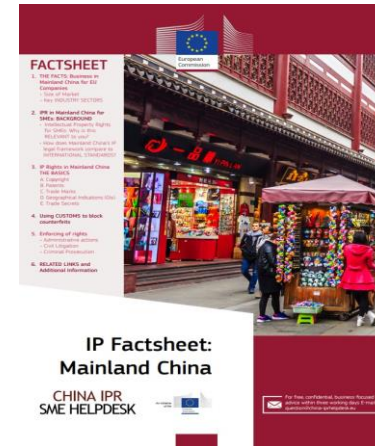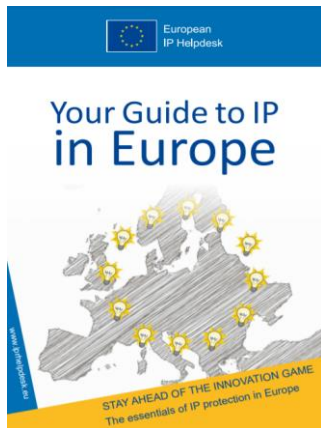
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Training
free online and on-site sessions

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

Upcoming events

11 FEB 2025
Training and workshops
EU - Webinar: IP in Biotechnology
(•) Live streaming available

13 FEB 2025
Training and workshops
EU - Webinar: IP & Open Science
(•) Live streaming available

17 FEB 2025
Training and workshops
EU - Webinar: IP in Horizon Projects (HEU)
(•) Live streaming available

19 FEB 2025
Training and workshops
EU - Webinar: Technology Transfer
(•) Live streaming available

25 FEB 2025
Training and workshops
EU - Webinar: IP Management in ICT Projects
(•) Live streaming available

27 FEB 2025
Training and workshops
EU - Webinar: Copyright in collaborative projec
(•) Live streaming available

04 MAR 2025
Training and workshops
EU - Webinar & Horizon Results Platform: IP in Business collaborations for SMEs and Start-ups
(•) Live streaming available

06 MAR 2025
Training and workshops
EU - Webinar: IP Assessment
(•) Live streaming available

Thank you!

- www.ec.europa.eu/ip-helpdesk

- helpline@iprhelpdesk.eu
- training@iprhelpdesk.eu

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IP Helpdesk

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Stay ahead of the innovation game.

IP Management in ICT projects

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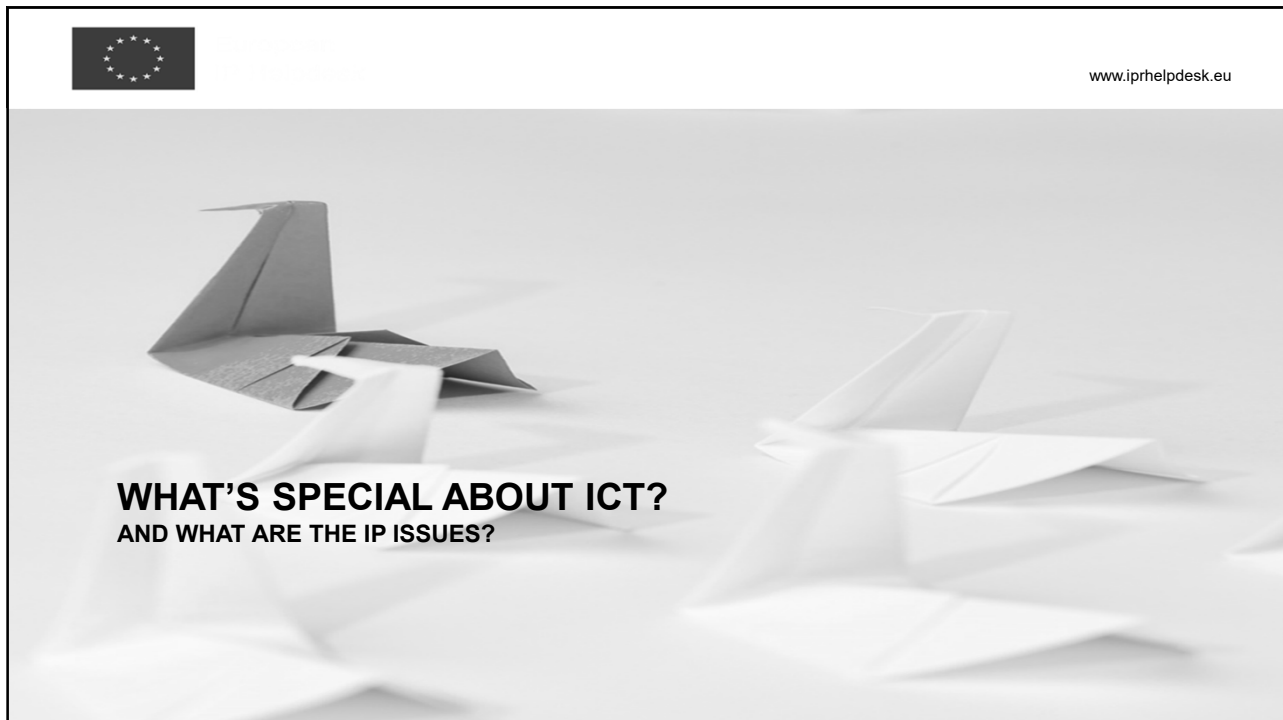*es@iambicinnovation.com*

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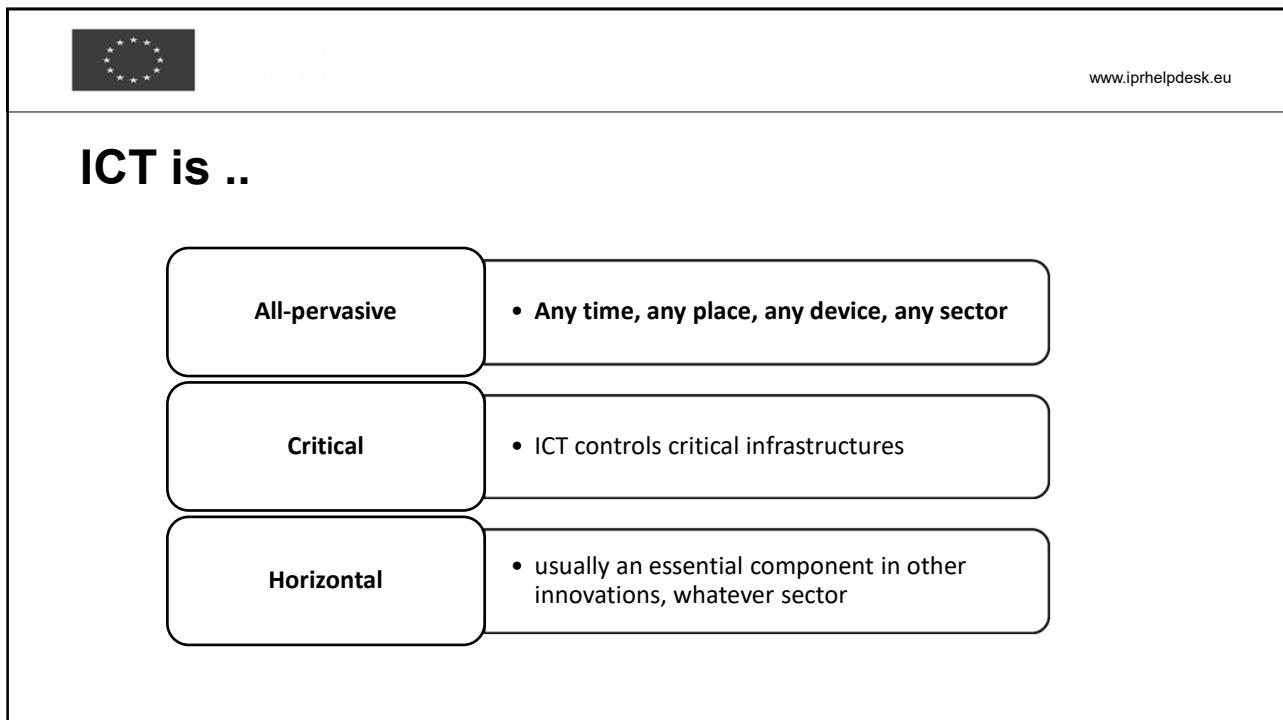# Today's speaker

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

2

WHAT'S SPECIAL ABOUT ICT?
AND WHAT ARE THE IP ISSUES?

3

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

4

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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.

5

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ICT is …

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

6

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

7

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**
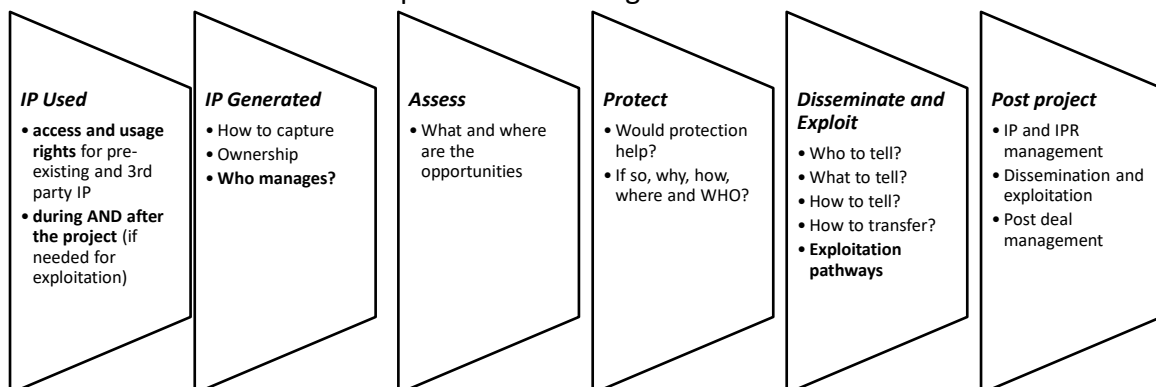
Attractive for investors
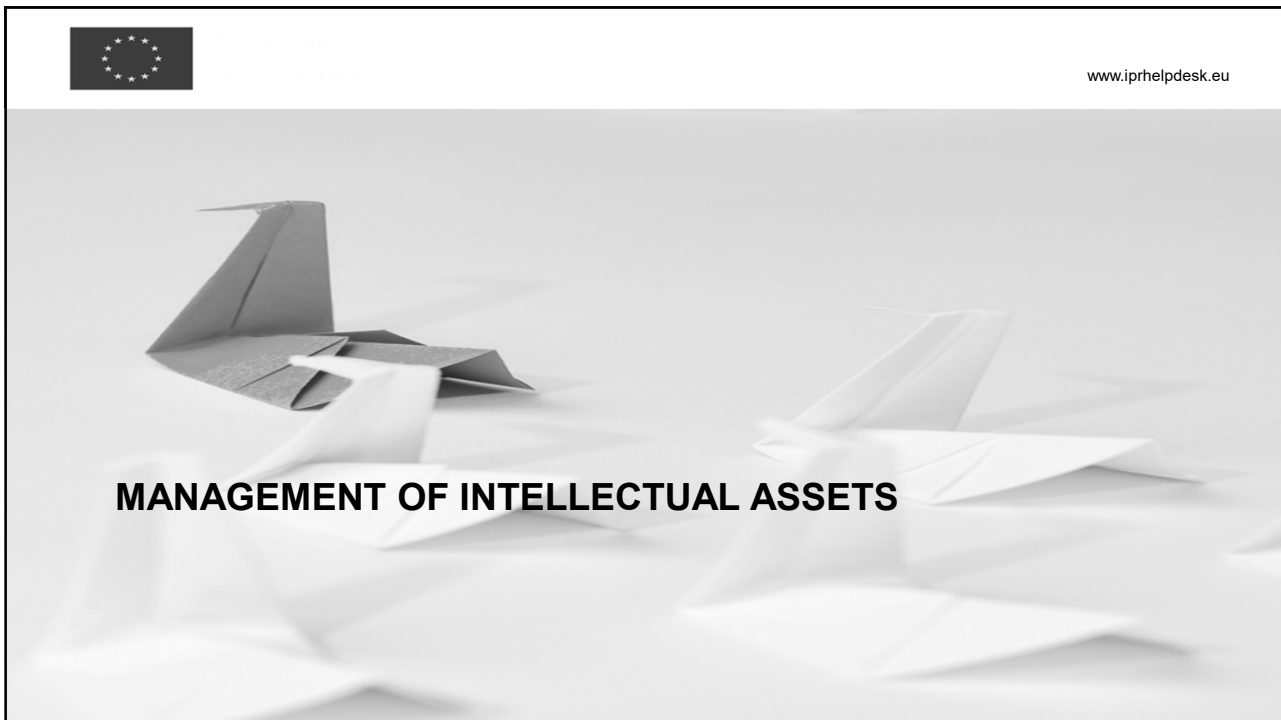
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MANAGEMENT OF INTELLECTUAL ASSETS
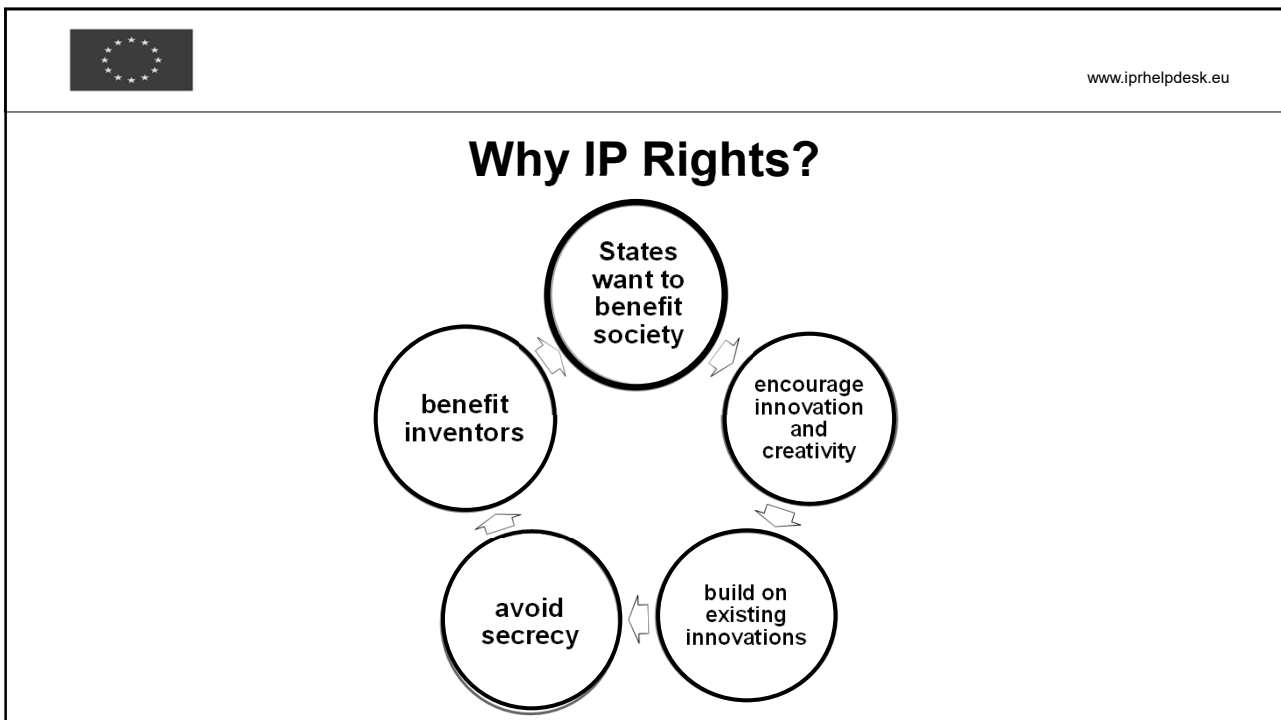
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IP Management - Managing the KEY assets!

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

10

MANAGEMENT OF INTELLECTUAL ASSETS

11

Why IP Rights?

- States want to benefit society
- encourage innovation and creativity
- build on existing innovations
- avoid secrecy
- benefit inventors

12

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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

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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

15

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Many types of Intellectual Property <u>Right</u> (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
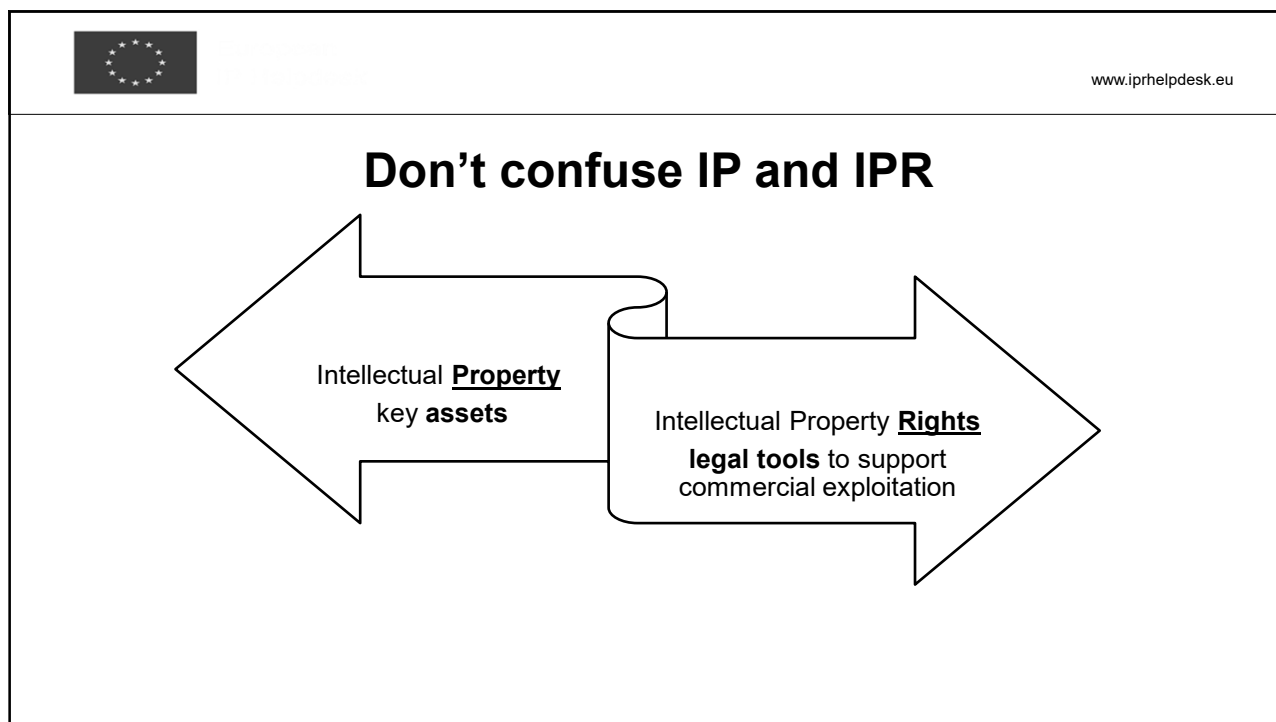
Some need registration

Confidentiality Agreements (Know-how)

Secrets (Trade Secrets)

Time limited rights

National rights

16

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Don't confuse IP and IPR

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

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

17

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PROTECTING ICT ASSETS

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

18

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**?

19

Strategic decisions

Are there commercial opportunities? → Would IP protection support exploitation? → Benefits greater than costs? → If so, **invest!**
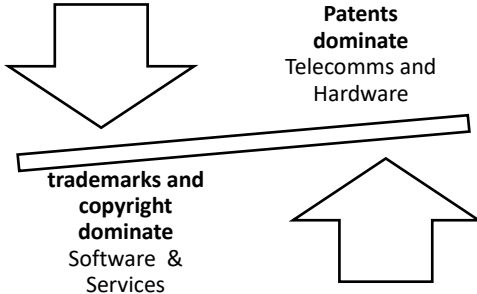
Assessment, protection and exploitation must be considered together

20

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More than just patents!

Patents dominate
Telecomms and Hardware

trademarks and copyright dominate
Software & Services

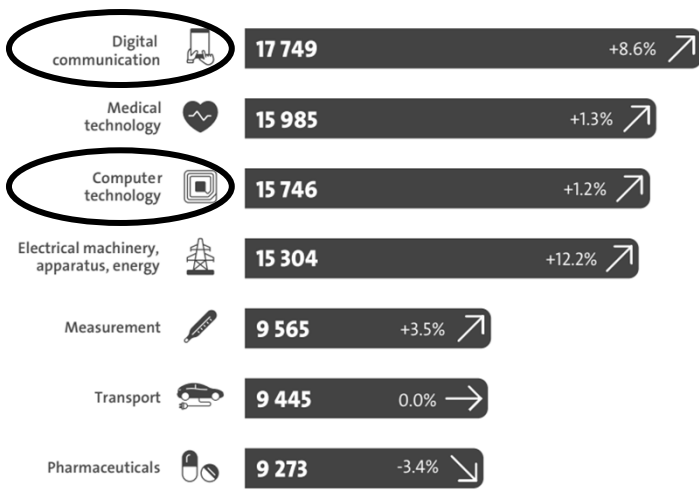*JRC Report, "IP and Innovation in ICT", 2015*

21

ICT Patents

Field	Value	Change
Digital communication	17 749	+8.6% ↗
Medical technology	15 985	+1.3% ↗
Computer technology	15 746	+1.2% ↗
Electrical machinery, apparatus, energy	15 304	+12.2% ↗
Measurement	9 565	+3.5% ↗
Transport	9 445	0.0% →
Pharmaceuticals	9 273	-3.4% ↘

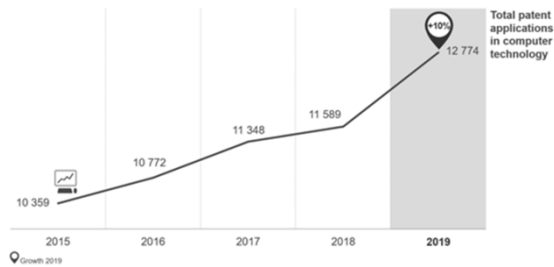**Top technical fields based on European patent applications**
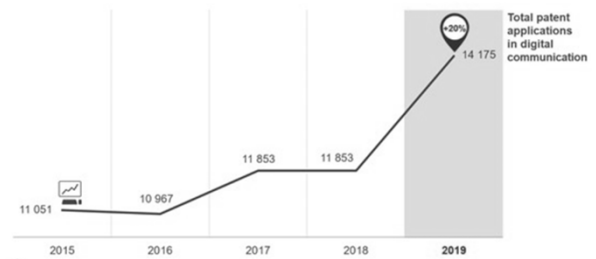
Source: EPO Patent Index 2023

22

Sharp rise in ICT patents

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

Total European patent applications[2] in digital communication
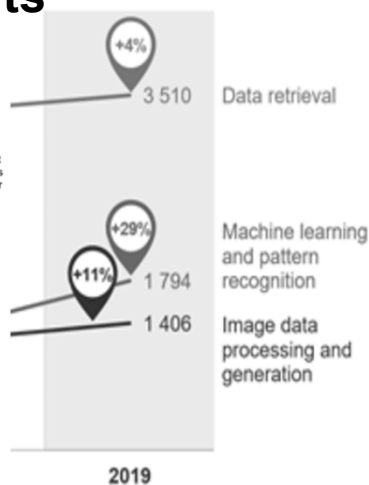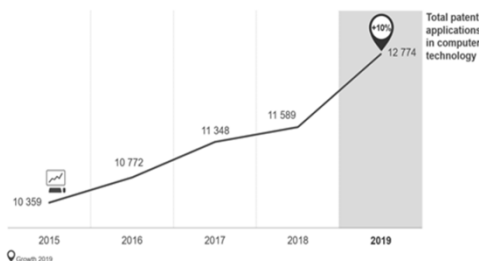

Source: EPO 2020

23

Many Software Patents

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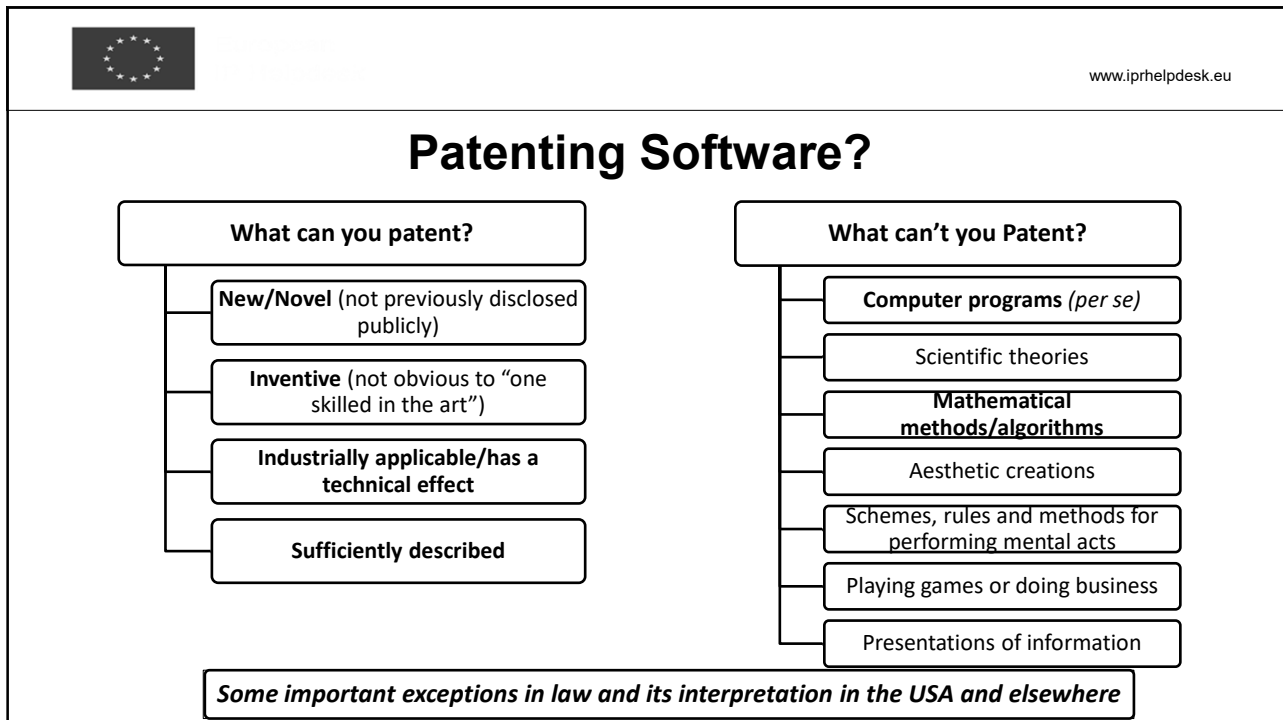

33% of patent applications filed at the EPO in 2010 were intended to protect a computer-implemented invention (**software patents**)
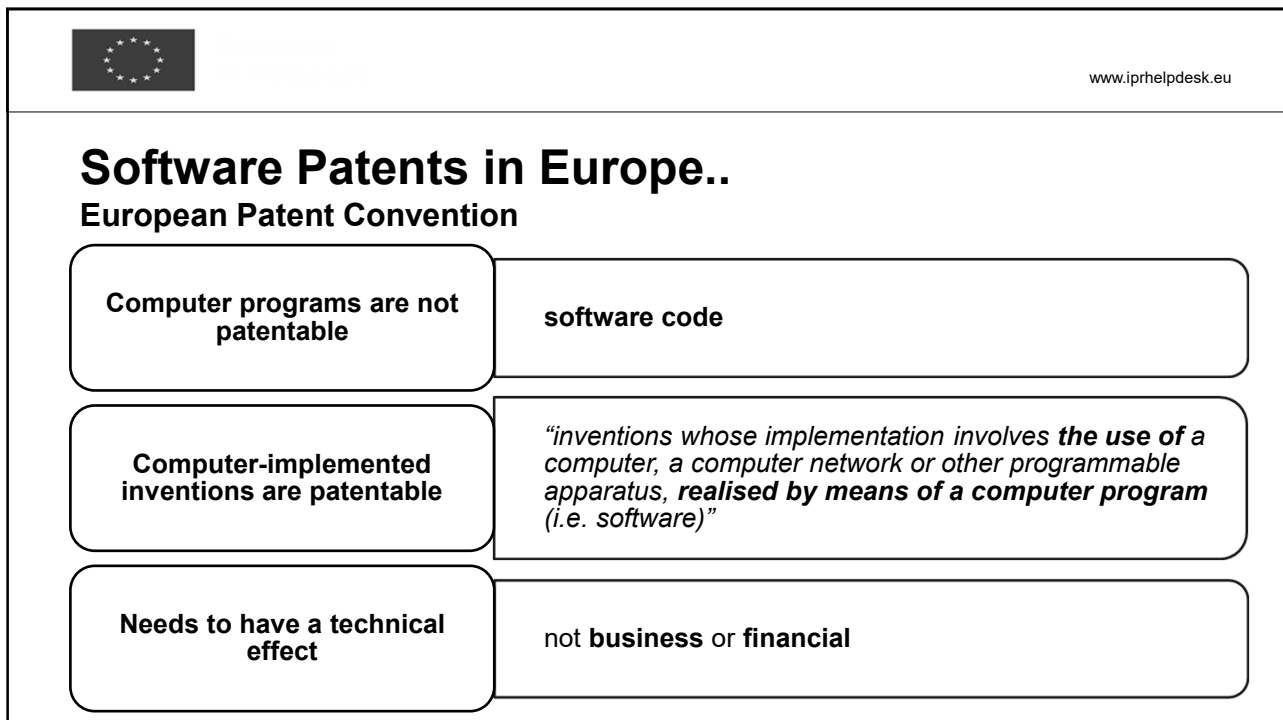
(Fraunhofer/4iP, 2015)

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

(GAO, 2013)

Source: EPO 2020

24

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Patenting Software?

What can you patent?	**What can't you Patent?**

New/Novel (not previously disclosed publicly)

Inventive (not obvious to "one skilled in the art")

Industrially applicable/has a technical effect

Sufficiently described

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

25

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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**

26

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Software Copyright

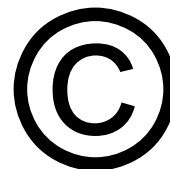|	
Copyrights protects the **expression** of the method **not the method** itself; for example:	• The code as such (source and binary) • Design material • User guides • Graphical elements such as icons
Comes into existence **automatically**	• so **keep good records** to prove date of creation.
Lasts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

27
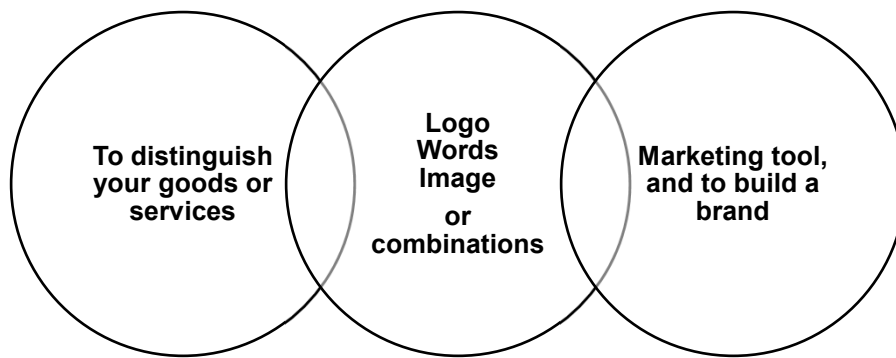
Software patent   *OR /AND* Software copyright

Patent

Copyright

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

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

28

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Trademarks

To distinguish your goods or services

Logo Words Image

or combinations

Marketing tool, and to build a brand

29

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Brands can be Valuable!!

Source Interbrand **Best Global Brands 2024**

30

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.

31

The AI Act

Official Journal
of the European Union

EN
L series

2024/1689

12.7.2024

REGULATION (EU) 2024/1689 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 13 June 2024

laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)

To ensure safe and trustworthy AI, the AI Act puts in place rules for providers of AI based systems, including transparency and copyright-related rules

32

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The AI Act

Generative AI, like ChatGPT, will have to comply with transparency requirements and EU copyright law

A GPAI (General-Purpose AI) – Code of Practice will be prepared in an iterative drafting process by April 2025, facilitated by the European AI Office

Disclosing that the content was generated by AI

Designing the model to prevent it from generating illegal content

Publishing summaries of copyrighted data used for training

Content generated with the help of AI (images, audio, video files, deepfakes, etc) – must be clearly labelled as AI generated so users are aware when they come across the content

33

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VALORISATION OF ICT IP

34

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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."
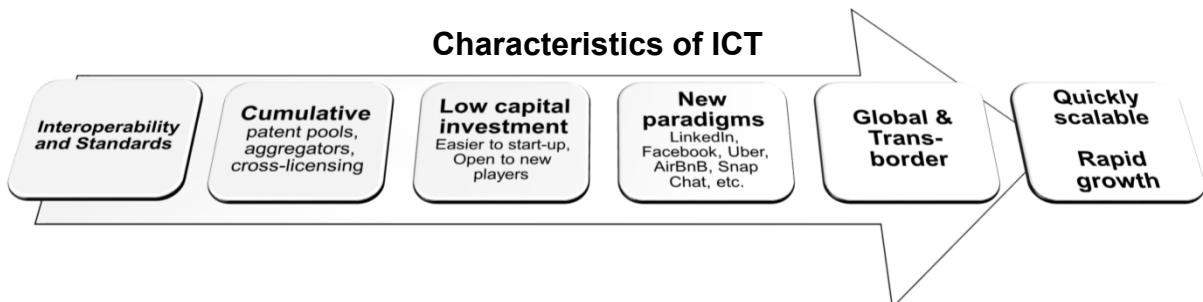
Horizon Grant Agreement

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Issues to consider when commercialising ICT

Wide variety of business models

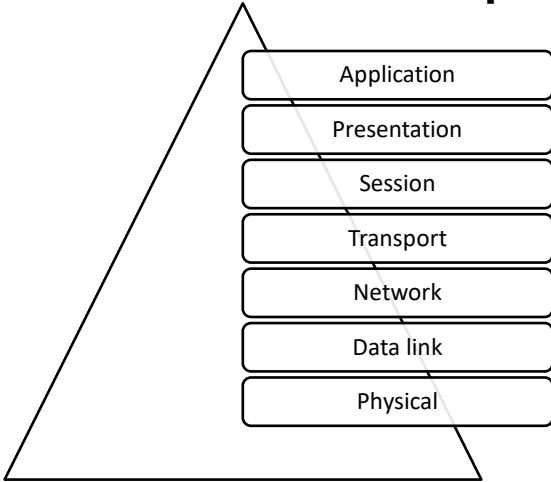| Open/free	Product or service	Per use/seat	one-off fee	subscription based	ad based	voluntary contributions	community supported	etc.

Characteristics of ICT

Interoperability and Standards — *Cumulative* patent pools, aggregators, cross-licensing — *Low capital investment* Easier to start-up, Open to new players — *New paradigms* LinkedIn, Facebook, Uber, AirBnB, Snap Chat, etc. — *Global & Trans-border* — *Quickly scalable* *Rapid growth*

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Standards and Interoperability

Application

Presentation

Session

Transport

Network

Data link

Physical

Open Systems Interconnection model (OSI model)

ISO

TECHNICAL COMMITTEES
ISO/IEC JTC 1
Information technology

3247
PUBLISHED ISO STANDARDS *
related to the TC and its SCs

540
ISO STANDARDS UNDER
DEVELOPMENT *
related to the TC and its SCs

37

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

38

Standardisation Support for Research & Innovation Projects

Apply for standardisation expert services to increase and valorise your project results through standardisation

Learn more →

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.
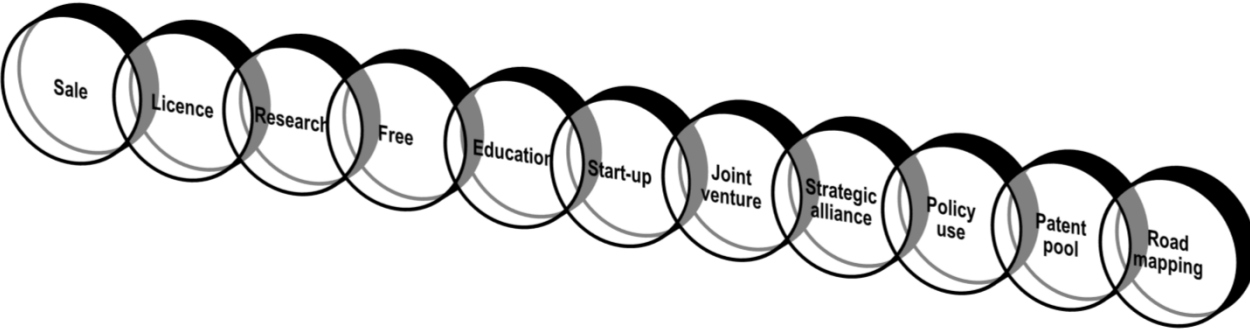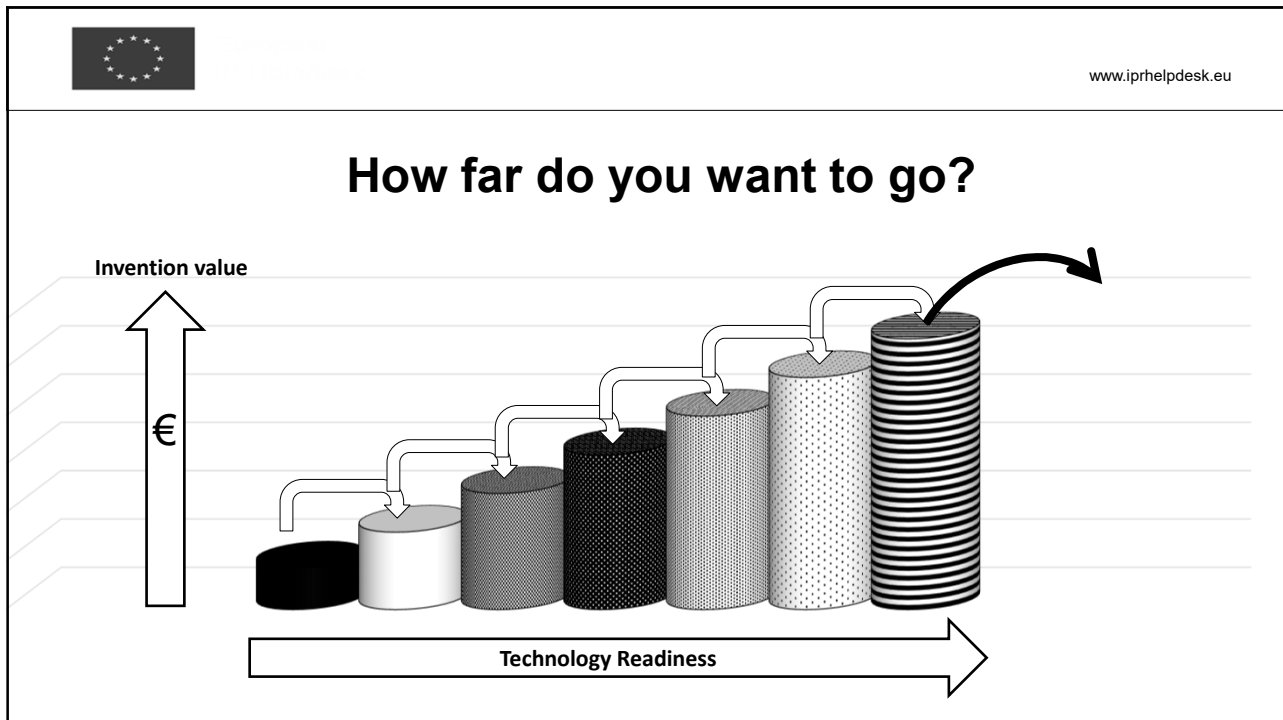
39

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**…

Sale · Licence · Research · Free · Education · Start-up · Joint venture · Strategic alliance · Policy use · Patent pool · Road mapping

40

How far do you want to go?

Invention value

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Technology Readiness

41

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

42

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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**

43

Licensing (in general)

European IP Helpdesk Bulletin No.1 - IP Licensing

IP Helpdesk Webinar
"IP Commericalisation and Licensing"

Granting right to use your property under agreed terms and conditions

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

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

44

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

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

Business models for Open Source

Must provide **source for free**	• Can charge for executable, add value services or products for packaging or to...
Added value **services and products** may be supplied	• So... • Su...ns...y be pur...
Someone must **manage and sustain**	• Quality an... • New releases... • Build and sus...
Beware **too many "forks"**	• Detrimental to bu...mass in...ty, 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?

47

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"*

48

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)

49

5 March 2024   *5 March 2024*   *7 May 2024*

50

Summary

ICT brings unique **opportunities and challenges**	IP Management **starts before** a project starts and continues **after it ends**	Use IP Rights **strategically** **Many options** for ICT	**Think and plan globally**	Wide range of **exploitation routes** and **business models**	**Don't be constrained** by convention

51
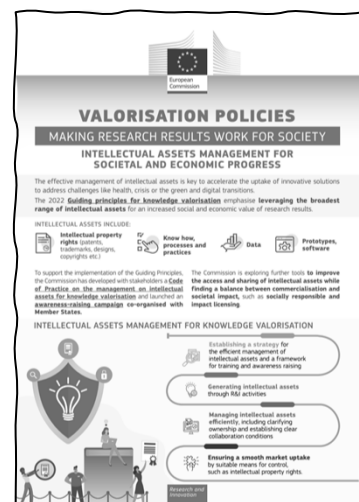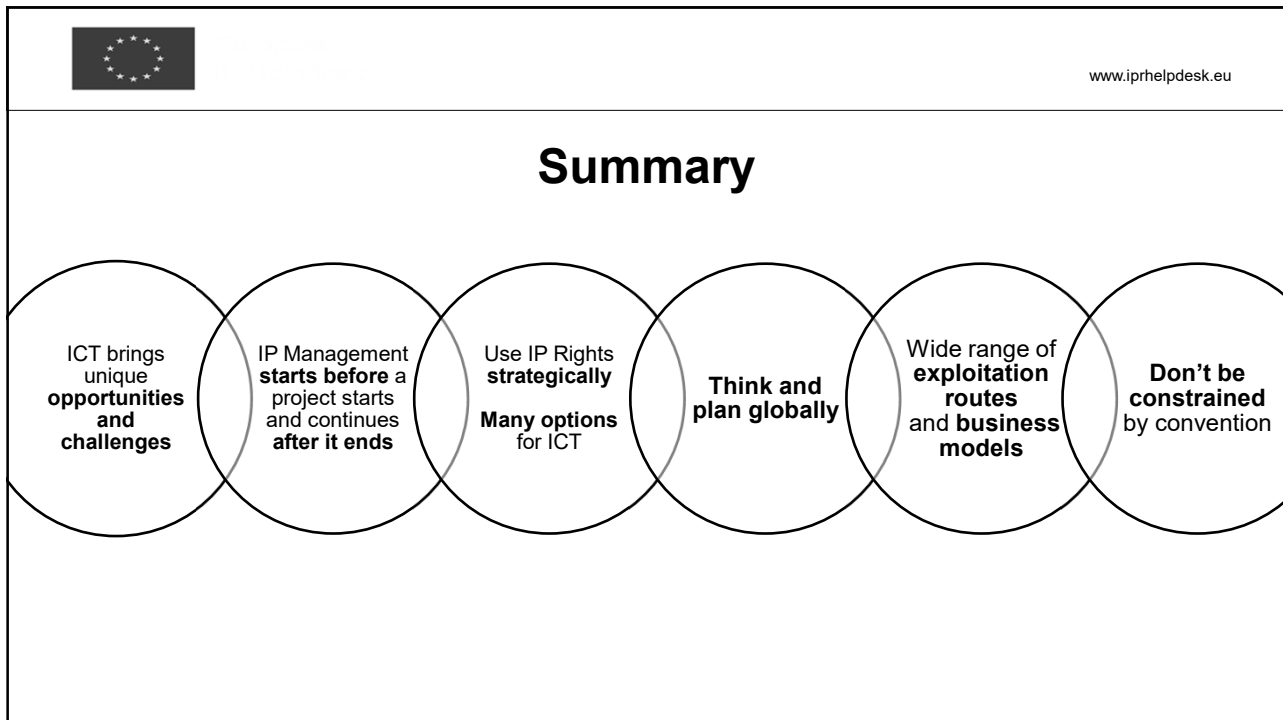
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The European IP Helpdesk provides free-of-charge first-line support on IP-related issues aiming to help current and potential beneficiaries of EU-funded projects, as well as EU SMEs, manage their Intellectual Property assets.

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

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Presentation produced by Dr. Eugene Sweeney, Iambic Innovation Ltd.

52