European IPR Helpdesk

Research Exploitation

Managing EU Projects to Maximise Impact

Dr. Eugene Sweeney
Iambic Innovation Ltd
es@iambicinnovation.com

Dublin, 11 May 2016

Get your ticket to innovation.

European IPR Helpdesk

European IPR Helpdesk

Horizon 2020

- An **impact orientated** approach
- **Delivering** strategic technologies that can **drive competitiveness and growth**
- The H2020 Work Programme sets out the **challenges** and expected **impacts**
- **Good project management and use of the project results is essential if the challenges are to met and the impacts maximised.**

European IPR Helpdesk

Overview- Research Exploitation

- Managing H2020 Projects to Maximise Impact

Networking Break

- Using Patent Information for Strategic Intelligence
- Strategies and Business Models

European IPR Helpdesk

Vocabulary/Definitions
IP > Innovation > Impact

- **Intellectual Property (IP)**
- Intellectual Property Right (IPR)
- **Innovation**
  - Innovation Potential
  - Innovation Capacity
  - Innovation Management
- Exploitation
- Dissemination
- Communication
- **Impact**

European IPR Helpdesk

Intellectual Property (IP)

- Products of the mind
- Products of research & experimentation
- Products of creativity

- Intellectual Property, like Physical Property can be a **valuable asset.**

- Like physical property, intellectual property is an **asset which can be traded** (sold, bought, leased, used as collateral, or given away!)

European IPR Helpdesk

Knowledge (IP)

The key asset to be managed in the project

- **used** by the project
  - access and usage rights during **AND after** the project (background and 3rd party – especially Open Source Software)
- **generated** by the project
  - **capture/manage** - disclosure, ownership, secure evidence of creation, pre-publication reviews for technical inventions, etc
  - **assessment -** prior art, market opportunity, exploitation and protection strategies, etc
  - **protection -** patents, copyright, database rights, trademarks, keep secret, etc)
- **disseminated and exploited (tell and get it used!)**
  - Research, education, commercial, policy, etc

European IPR Helpdesk

Intellectual Property Rights (IPR)

The law provides legal "rights" to protect your Intellectual Property, known as **Intellectual Property Rights (IPRs)**

- Patents (technical inventions)
- Copyright (Software, Written works, Engineering drawings, Semiconductor Topologies, etc)
- Design Rights (functional or aesthetic)
- Database Rights (creation and arrangement of data)
- Trade marks
- Plant Breeders Rights
- Utility Models/petty patents
- etc

NOT ONLY PATENTS

- Confidentiality Agreements (Know-how)
- Secrets (Trade Secrets)

- National rights
- Regional variations in law
- Time limited rights

European IPR Helpdesk

Intellectual Property Rights (IPR)

- **WHY?**
  - To **promote innovation** by encouraging invention and creativity, and thereby benefitting society
- **HOW?**
  - The state grants a **limited monopoly in return for publishing** the invention
- **WHO BENEFITS?**
  - **The state benefits** by avoiding secrecy, stimulating further innovation, and thus enriching society
  - **The creator benefits** by preventing unauthorised use by others, unless they come to an agreement
  - **Commercial partners benefit** from the limited monopoly and so invest in further development to take-to-market

European IPR Helpdesk

Innovation

The successful exploitation of new creations, which when **used** produce tangible **benefits,** satisfying needs and wants.

Invention IS NOT Innovation

Impact

The **benefits** derived from the innovation. The larger the benefit, the larger the impact

European IPR Helpdesk

The H2020 Work Programme

Clearly describes the challenges and expected impacts

SC1-PM-17-2017: Personalised computer models and in-silico systems for well-being

Specific Challenge:

- ..There is continuous progress in systems medicine, multi-scale modelling and patient-specific modelling aspects, but….. **there are very few** in well-being, prevention or rehabilitation … More, innovative methods **are needed** for better understanding and analysing brain, neurobiological …etc

Expected impacts:

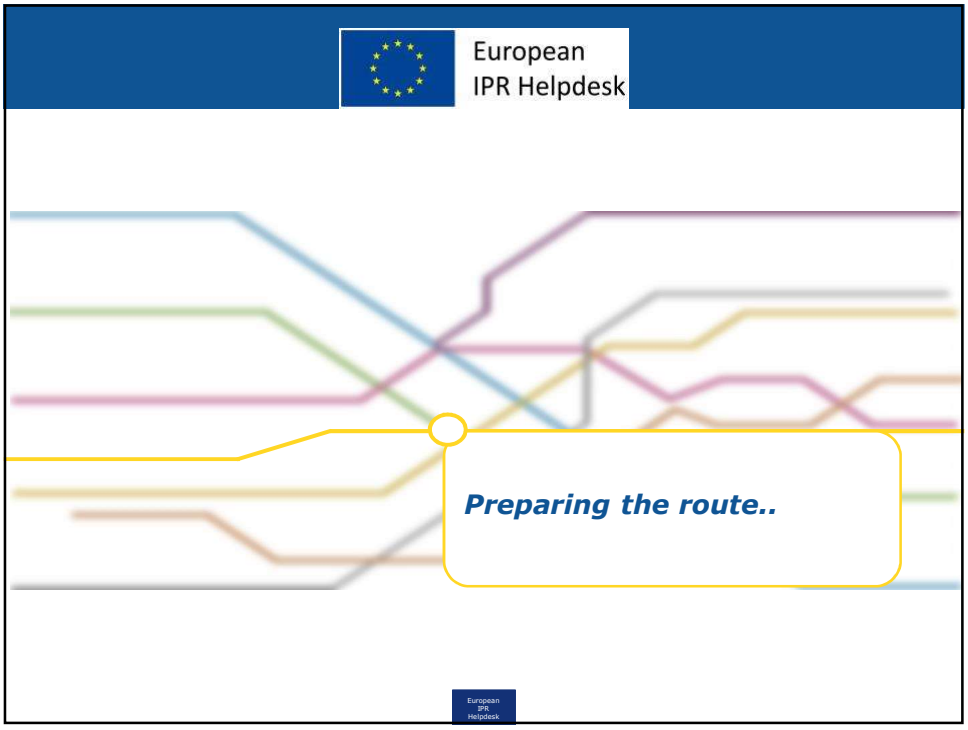
- New personalised interventions for increasing resilience …
- Advancements in medical computer-modelling …
- Predictive and preventive approaches in medicine…
- Improving knowledge about well-being …

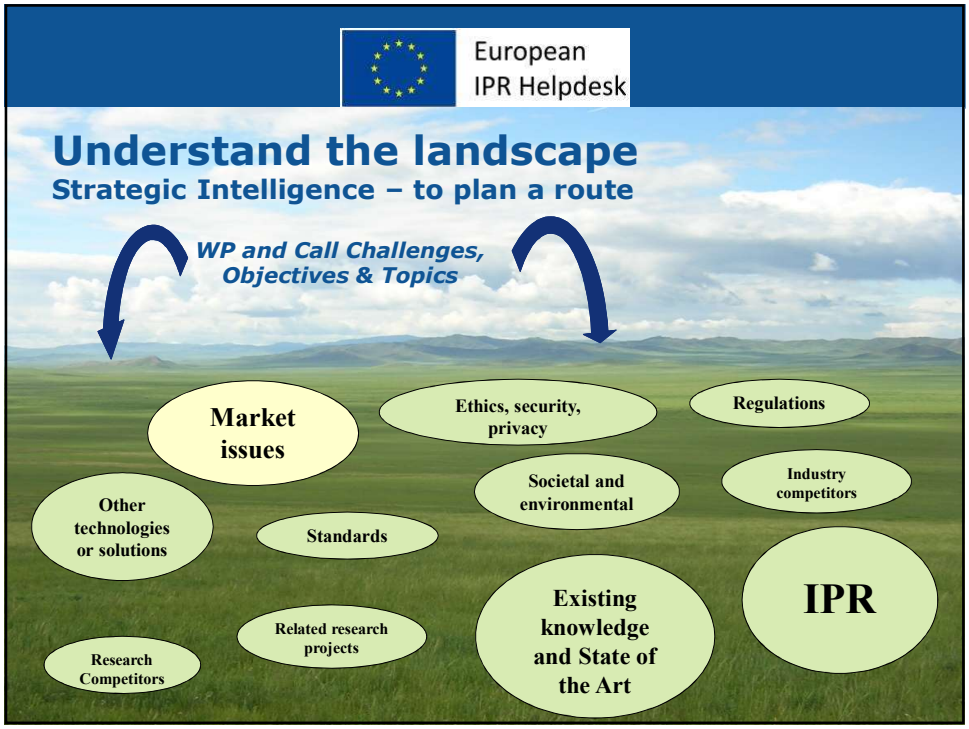
European IPR Helpdesk

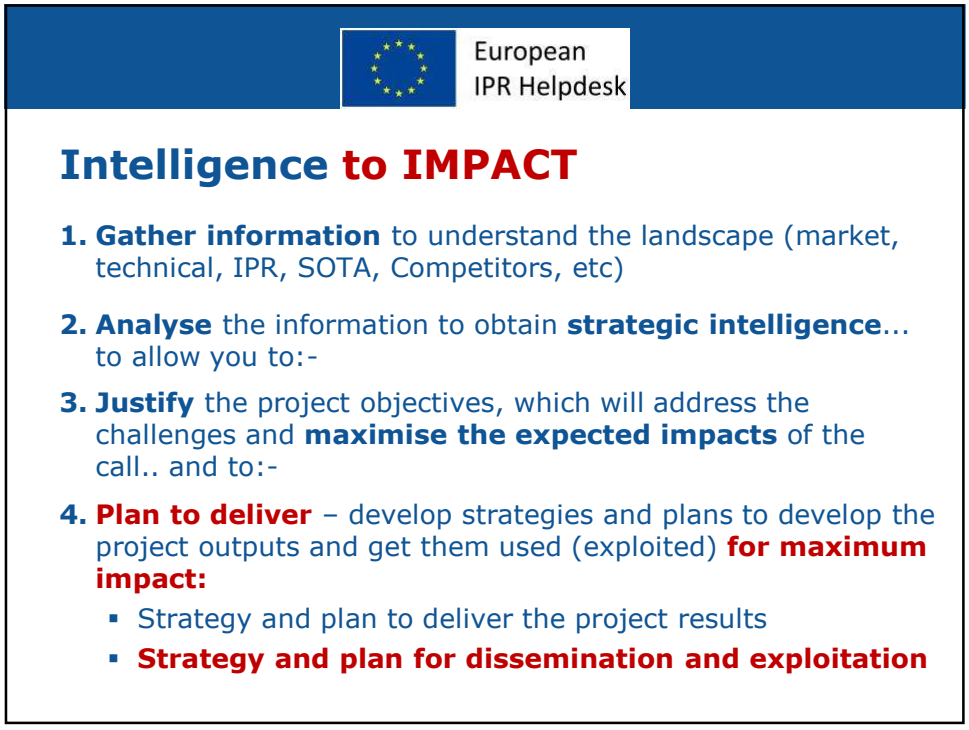
Any type of benefit and impact

- Benefit (hence impact) **does not have to be financial**
- Innovations can be based on new products, services, organisational or business methods, improved networks or collaborations, advisory reports, etc, etc
- The impact of the innovation can be **societal, environmental, technical, commercial, educational**, or anything that delivers a benefit to someone or addresses a need

11




European
IPR Helpdesk
Understand the landscape
Strategic Intelligence – to plan a route
WP and Call Challenges, Objectives & Topics
Market issues
Ethics, security, privacy
Regulations
Societal and environmental
Industry competitors
Other technologies or solutions
Standards
IPR
Existing knowledge and State of the Art
Related research projects
Research Competitors


European
IPR Helpdesk
Intelligence to IMPACT
1. Gather information to understand the landscape (market, technical, IPR, SOTA, Competitors, etc)
2. Analyse the information to obtain strategic intelligence... to allow you to:-
3. Justify the project objectives, which will address the challenges and maximise the expected impacts of the call.. and to:-
4. Plan to deliver – develop strategies and plans to develop the project outputs and get them used (exploited) for maximum impact:
▪ Strategy and plan to deliver the project results
▪ Strategy and plan for dissemination and exploitation

European IPR Helpdesk

Implementation
Managing the project

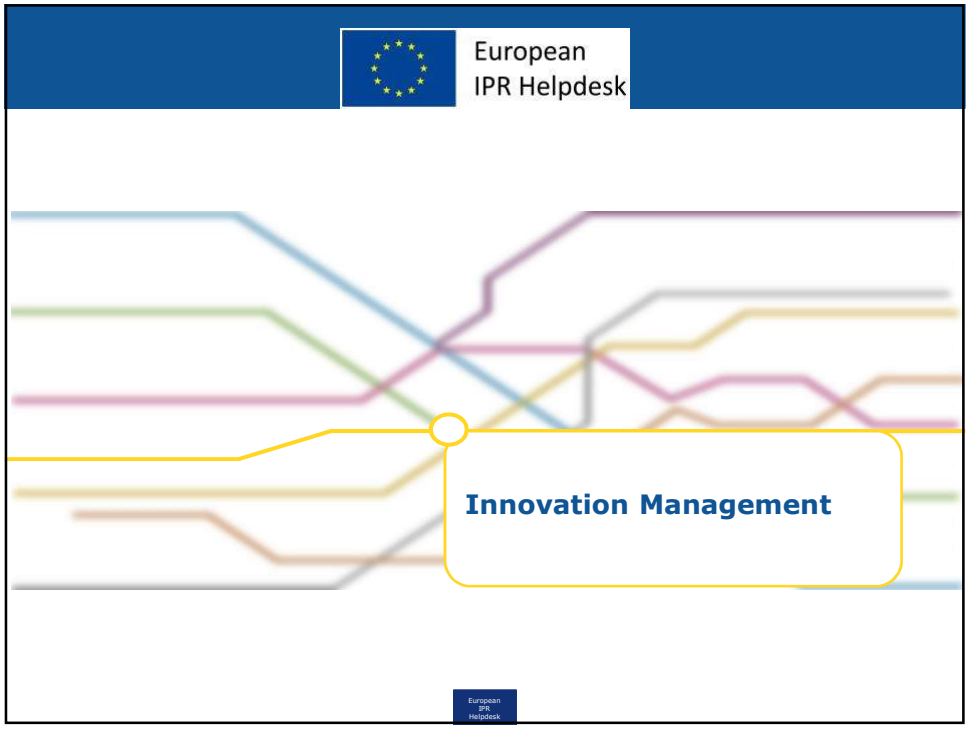
Management **structures and procedures** to:

- **Create, capture and manage the research results**
  - Establish good foundations and guiding principles/policies
  - The management framework (who is responsible)
  - The management procedures (how it will be done)
- **Disseminate (tell) and Exploit (use)**
  - Assess the opportunties
  - Dissemination and exploitation strategies and plans
  - Exploit/Extract value from research outputs

European IPR Helpdesk

Implementation
Extract from proposal template

- Give visibility in the work plan to **'dissemination and exploitation'**
- Describe how **effective innovation management** will be addressed in the management structure and work plan.
- If applicable, describe the **industrial/commercial involvement** in the project to **ensure exploitation of the results** and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project (in Impact Section).


European
IPR Helpdesk
Innovation Management
European
IPR
Helpdesk


European
IPR Helpdesk
Innovation management
is not
IPR Management
is not
Exploitation Management
is not
Dissemination Management
is not
Communications Management

European IPR Helpdesk

Innovation Management

EC Definition

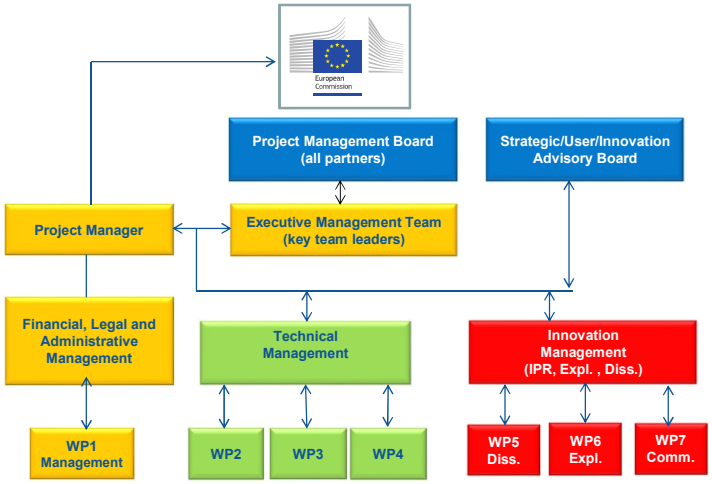
"Overall management of all activities related to understanding needs, with the objective of successfully identifying new ideas, and managing them, in order to develop new products and services which satisfy these needs.

Innovation management starts at the point of capturing the creative works and finishes when it a product or service is deployed."

Someone must be responsible for managing all innovation related activities from capturing, assessing, protecting and managing the IP; through dissemination and exploitation (use) of the IP; to market deployment.

European IPR Helpdesk

Typical Management Structure



European IPR Helpdesk

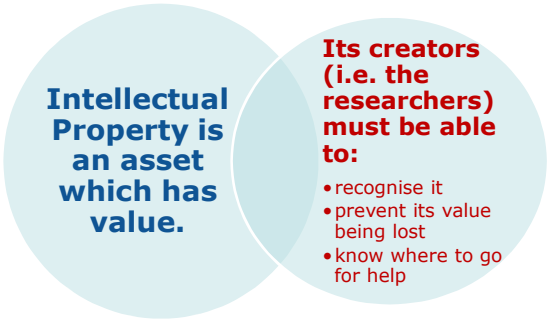
Key tasks and responsibilities

1. Secure the foundations
2. Capture the project outputs
3. Assess and protect the project outputs
4. Disseminate, exploit and communicate the project outputs

European IPR Helpdesk

Secure the foundations

- Ensuring researchers can **recognise** and **capture** IP (IP **awareness** training for participants)
- Ensure **good research practice** (including record keeping)



European IPR Helpdesk

Capture the IP

- Proactive monitoring of project outputs - regular reviews
- Facilitating disclosure/standard "disclosure forms"
- Initial Disclosure - **Key information needed**
  - Identify **ALL** relevant outputs (software, papers, know-how, etc)
  - **Clarify ownership/management** – particularly if 3rd parties involved
  - **Check for "hidden traps"** (publications, posters, etc.), which might affect patentability.

European IPR Helpdesk

Have you captured ALL the Project outputs?

- **Technical (Patentable)**
  - Process, Product, Manufacturing Apparatus
- **Protected by copyright**
  - Software
  - Reports
  - Engineering drawings
  - Manufacturing and user guides
- **Trademarks/brands**
- **Designs (design rights)**
  - Functional
  - Eye-appeal
- **Know how** (e.g. best way to implement)
- **Secrets** (e.g. secret formulas)

European IPR Helpdesk

Ownership and Management?

- Who owns what? (don't just quote default rules)
- How will relative contributions to the invention be agreed
- How will shares of costs and revenue be agreed?
- Who will manage the IP bundles?
- Who will manage the exploitation?

Does the Consortium Agreement address this?
Are there procedures in place?

Legal Ownership of EC Supported foreground IP is with the Institution – so **institution involvement is crucial** for issues such as ownership, management, access and use.

European IPR Helpdesk

Visitors?

Ensure project policies are agreed to by "non-staff" who might become involved in the project.

- Taught research students
- Visiting academics
- Advisory board members
- etc

European IPR Helpdesk

Hidden Traps

which can prevent patentability for technical inventions

- **Novelty (**Not previously described or publicly disclosed)
- **Inventiveness (not obvious)**
- Industrially Applicable or Useful

European IPR Helpdesk

Common inadvertent disclosures

Not only ..

- ✓ Publishing in the literature
- ✓ Posting information to the Internet

But also beware of ..

- Inclusion in a thesis deposited in a library
- Oral or written disclosure with a customer, at scientific meetings (including poster sessions), or in any circulated abstract
- Disclosing to visitors in a non-confidential manner, including posters and displays in corridors
- Leakage of information from experimental public trials or prototypes without taking precautions to avoid this
- Advertisement, sale, use or any form of commercial activity which is public (e.g. to try and "test the market")

European IPR Helpdesk

Inventiveness… Obviousness

European Patent Office Guidelines

"The term 'OBVIOUS' means that which does not go beyond the normal progress of technology but **merely follows plainly or logically** from the prior art i.e. something which does not involve the exercise of any skill or ability beyond that to be expected of the person skilled in the art"

European IPR Helpdesk

Published (or Public) Statements can Defeat Patents

- "Smith and Jones showed X. ***Therefore*** we decided to try Y"
- "Because of its structure, this virus seemed ***a likely choice*** as a vector of foreign epitopes"
- "***We predicted it*** would happen and these results have confirmed our prediction"
- "***Logic dictates*** that..."

Avoid statements that make it sound obvious to try and obvious that it will succeed – including after filing a patent.

European IPR Helpdesk

Establish Good Practice

- IP awareness training for participants
- Encourage Good Research Practice to record research activity and results (to secure proof of creation)
- Procedures for pre-publication review
- Procedures to manage other public disclosures such as in emails, posters, internal seminars
- Procedures for visitors and visiting researchers

Project outputs (IP) are valuable assets, so look after them well!!

European IPR Helpdesk

Assessing the project outputs

- What and where are the **(market) opportunities?**
- Are there **alternative technologies/solutions?**
- Is there a **business case?**

European IPR Helpdesk

How do you predict the future?

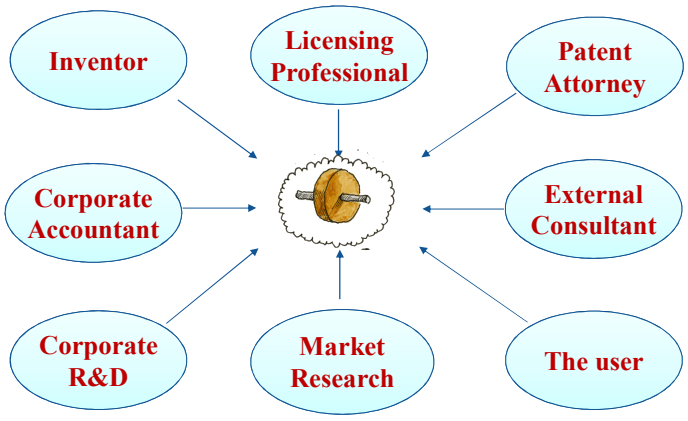
The challenge of assessing **future** markets for **new** technologies is to:-

- determine the demand for products that don't yet exist
- from customers who don't yet know about them

" Prediction is difficult, especially when it's about the future"
Niels Bohr (Nobel Prize winner)

European IPR Helpdesk

Who should you ask?



European IPR Helpdesk

How do investors decide?

- Ask everyone!
- Different inputs are needed to assess project outputs and plan exploitation
- Assessing new technologies and markets is always difficult
- Risks cannot be avoided - but they can be managed

European IPR Helpdesk

What should be assessed?

- **IPR** Issues
  - What is the potential for protection AND Freedom to Use issues?
  - Will protection help exploitation?
- **Markets** (sectors, competition, growth, value chain, etc.)
- **Opportunities** (where are the unmet needs where project outputs could make a difference, and how much?)
- Is there a viable **business case**?
- How easy will it be to **transfer** outputs?
- Will there be a need for pre- and post- deal **support**?

All must be considered together

European IPR Helpdesk

Protecting the IP

- **If** protection of the project results could support commercial exploitation?
- **Then invest** in protecting and securing foreground IP as appropriate (**an eligible cost in H2020**)
- Think of IP protection as **an investment NOT a cost!)**

Assessment and protection must be considered together

European IPR Helpdesk

Summary

- **Plan to maximise impact**
  - Understand the **whole landscape**
  - Obtain **strategic intelligence**
    - Users, Markets, Barriers, Competition, Value Chains, Exploitation Routes, etc, etc
- **Manage to maximise impact**
  - **Create, capture, assess** and **protect results**
  - **Tell all the right people (dissemination)**
  - **Get the results are used (exploitation)**

"Your plan for the dissemination and exploitation of the project's results is key to maximising their impact."

(from H2020 proposal template)


European
IPR Helpdesk
© European Union (2011-2015)
Presentation produced by Dr. Eugene Sweeney, Iambic Innovation Ltd.
Credits
© istockphoto.com/maridav (slide 1)
© Iambic Innovation Ltd (slide 13)
Disclaimer/Legal Notice
The information and advice contained in this presentation is not intended to be comprehensive and attendants are advised to seek independent professional advice before acting upon them. The European IPR Helpdesk is not responsible for the consequences of errors or omissions herein enclosed. Re-use of information contained in this presenation for non-commercial purposes is authorised and free of charge, provided the source is acknowledged. The use of images – other than in the mere reproduction of this presentation – is prohibited. The European IPR Helpdesk is not responsible for any impact or adverse effects on third parties connected with the use or re-use made of the information contained in this presentation.
The European IPR Helpdesk is managed by the European Commission's Executive Agency for Small and Medium-sized Enterprises (EASME), with policy guidance provided by the European Commission's Enterprise and Industry Directorate - General. Even though this leaflet has been developed with the financial support of the EU, the positions expressed are those of the authors and do not necessarily reflect the official opinion of EASME or the European Commission. Please see our full disclaimer at www.iprhelpdesk.eu.