

European IPR Helpdesk

Impact & Innovation in H2020 IP Management & Exploitation



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Get your ticket to innovation.

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- 36 years experience of commercialising IP/research and new technology
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- Member of International (ISO) and European (CEN) Standards Technical Committees on Innovation Management
- Member of The Licensing Executives Society (LES)

Horizon 2020...

*"The European Union Commissioner for Research, Science and Innovation, Máire Geoghegan-Quinn, emphasised **Europe's determination to link science and research and innovation to market** "*

Brussels, 18th February 2010

Roadmap

Impact and Innovation in H2020 proposals

- Getting the information for the proposal
- Developing the proposal to maximise impact
 - **Excellence**
 - **Impact**
 - **Implementation**



Objectives

- To understand the road from research to exploitation
- To understand the practical steps needed to recognise, capture, manage, protect and exploit project outputs
- To better steer projects as they progress



Intellectual Property (IP)

- Products of the mind
- Products of research, experimentation and creativity
- Intellectual Property, like Physical Property can be a **valuable asset**.
- Like physical property, intellectual property is an **asset which can be traded**

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 (appearance)
- Database Rights (creation and arrangement of data)
- Trade marks
- Plant Breeders Rights
- Utility Models/petty patents
- etc

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

- National rights
- Time limited rights

- **NOT ONLY PATENTS**

Intellectual Property Rights (IPR)

WHY?

- To promote innovation by encourage invention and creativity, and thereby benefit society

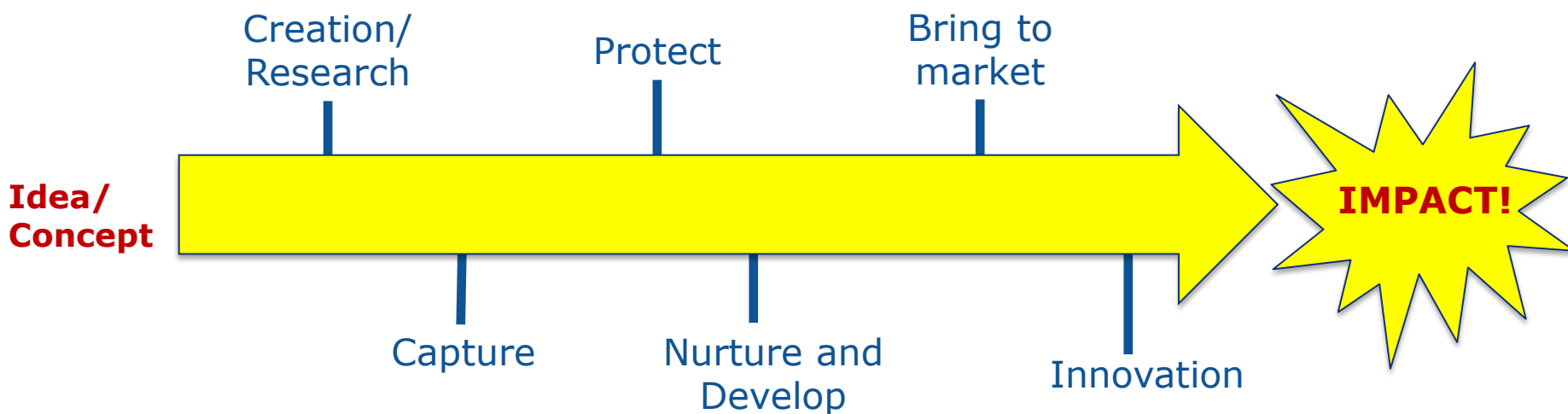
HOW?

- The state grants a **limited monopoly** in return for **publishing** the invention
- The state benefits by avoiding secrecy, thus **stimulating further innovation**, and thus enriching society
- The creator benefits by **preventing unauthorised use** by others, unless they come to an agreement (usually financial!)

Impact and Innovation in H2020

- H2020 is based on:
 - An **impact orientated** approach
 - Delivering strategic technologies that can **drive competitiveness and growth**

Idea to Impact!



Innovation Potential

- How much benefit?

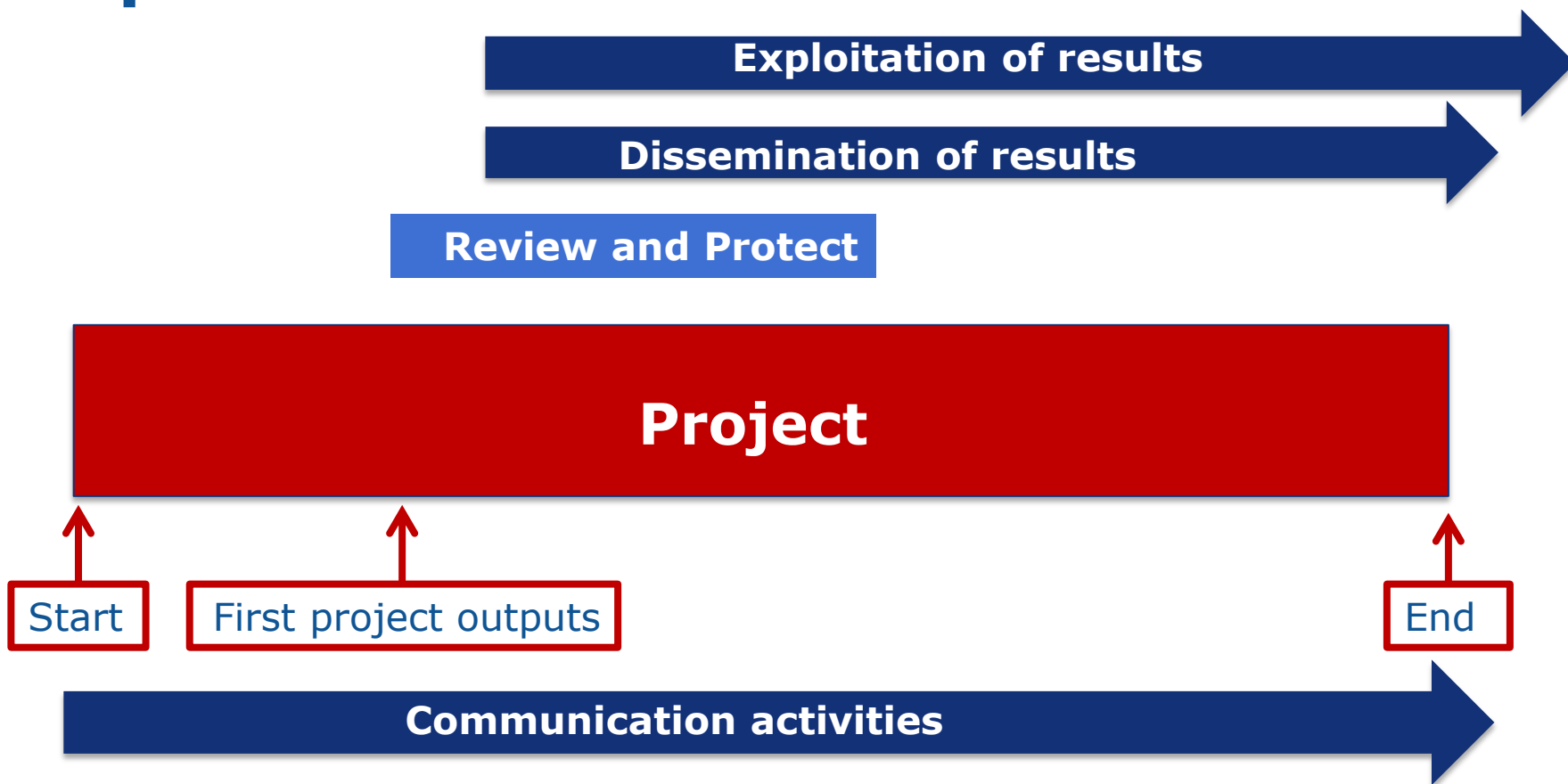
Innovation Capacity

- Can the invention/new creation/design be used to develop other innovations?

Exploitation and Dissemination

- Exploitation can be **commercial** or **research**
- Dissemination (or publishing) stimulates further research and development (the rationale for IPR)

Communication, Dissemination and Exploitation





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Addressing Impact & Innovation in 2020

Impact and Innovation in H2020

- Impact and Innovation must be addressed in all sections of a proposal, **NOT JUST** the impact section
- Impact and Innovation must be managed in all stages of a project, **NOT JUST** during exploitation

Proposals for all Actions

(RIA, IA, SME, etc)

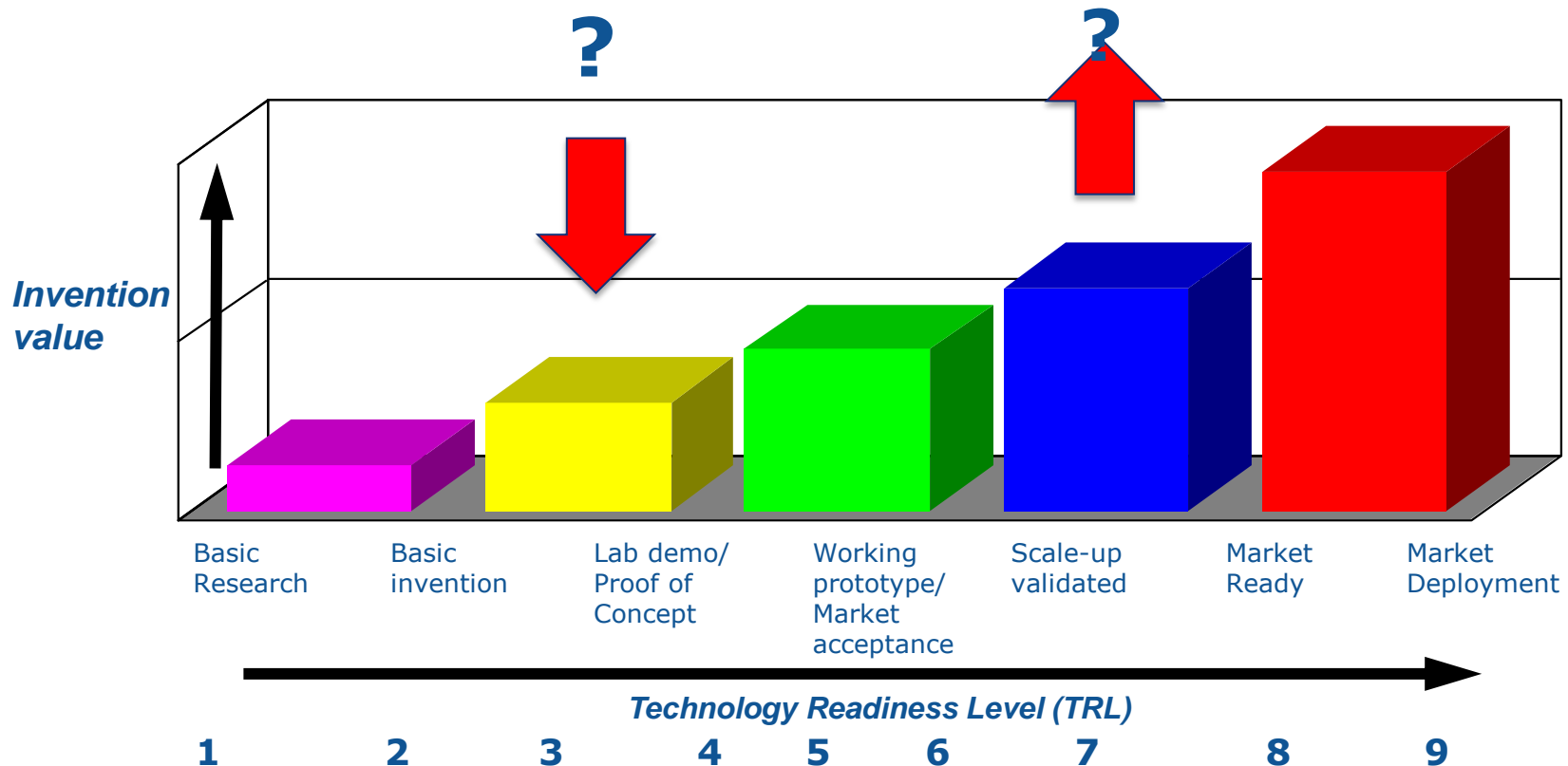
- **Demonstrate an understanding** of the technology and market environment
- **Justify** the project objectives
- Presenting a **credible and viable methodology** and **plan** to achieve the project objectives
- **Demonstrating capability to deliver what is planned**, including governance, policies, systems, structures, operational processes and risk management.
- Demonstrate and justify the potential impact and **how it will be achieved**

For Innovation & SME Actions

- Focus on the **business opportunity**
- Include the **concept for commercialisation**
- Ensure good level of **innovation**, i.e. develop something new
- Analyse **competing solutions** and explain **why you will succeed** and not your competitor

Technology Readiness Levels

Where are you starting from and where do you want to go?



Not adequately addressed!

Observations from evaluations

- Innovation management
- Management of IPR
- Innovation potential
- Enhancing Innovation Capacity
- Integration of new knowledge
- Draft exploitation strategies and plans
- Contributions to the expected impacts of the call
- Barriers/Obstacles (i.e. patent/IPR search, standards)

SME Instrument

6 lessons learnt from the first evaluation (EASME)

- Too much focus on the project and **not enough on the business opportunity**;
- Not convincing when **describing the company** (you have to explain why **your company** will succeed and not your competitor);
- Not providing enough information on **competing solutions**;
- Having a too **low level of innovation**, planning to develop a product that already exists on the market;
- Proposing just an idea **without any concept for its commercialisation**;
- Just **trying their luck** (the SME Instrument is not a lottery!).

Evaluation Criteria - Excellence

- Clarity and pertinence of the objectives
- Soundness of the concept, including trans-disciplinary considerations, where relevant
- **Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches)**
- Credibility of the proposed approach

Evaluation Criteria - Impact

- The **expected impacts** listed in the work programme under the relevant topic
- **Enhancing innovation capacity** and **integration of new knowledge**
- Strengthening the competitiveness and growth of companies **by developing innovations** meeting the needs of European and global markets; and, where relevant, **by delivering such innovations to the markets**
- Any other environmental and socially important impacts (not already covered above)
- Effectiveness of the **proposed measures to exploit** and disseminate the project results (including **management of IPR**), to communicate the project, and to manage research data where relevant

Evaluation Criteria - Implementation

- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources
- Complementarity of the participants within the consortium (when relevant)
- Appropriateness of the management structures and procedures, including risk and **innovation management**

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What to look for in a good proposal?

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***Gathering the information to
prepare the proposal***

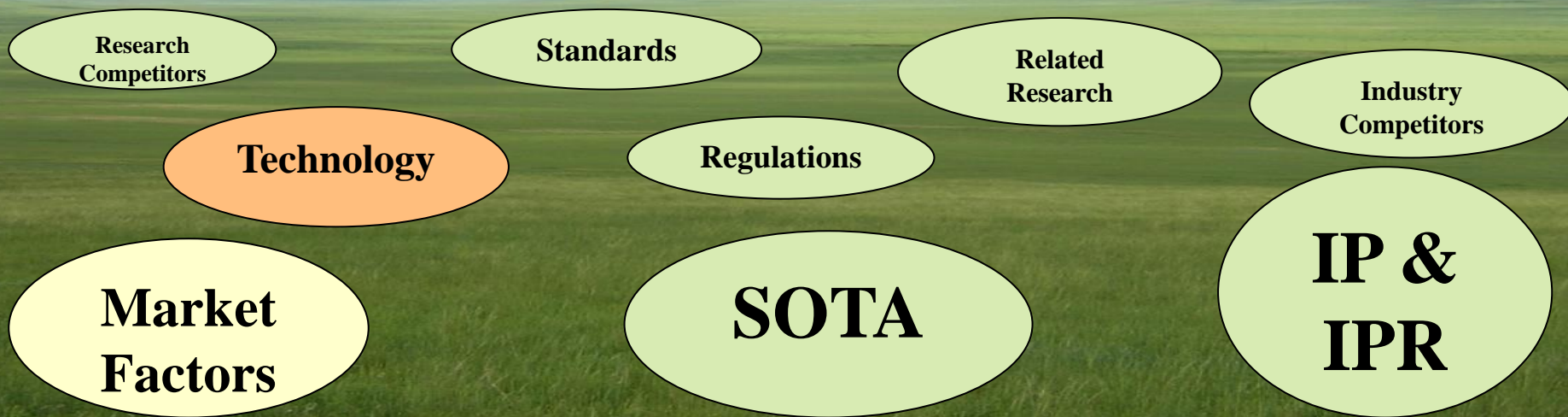
Strategic Intelligence to Action Plans

- **Gather information** to understand the landscape (market, technical, IPR, SOTA, Competitors, etc)
 - **Analyse** the information to obtain **strategic intelligence**... to allow you to
 - **Justify** the project objectives ... and to
 - **Plan** the a route to get there, resulting in:
- **Realistic, credible, achievable and measurable** strategies and plans, based on a **sound analysis** and **quantitative** information where possible

Understand the landscape

Strategic Intelligence – to plan a route

WP and Call Challenges,
Objectives & Topics



Data > Intelligence > Plans > Action

- **Study and Analyse the landscape** with respect to WP Topics, SOTA, IP, market environment, barriers, risks, etc.
- **Elaborate and Justify** project objectives, considering consortium expertise, capabilities and proposed resources
- **Plan to deliver** – developing strategies and plans to maximise impact and exploitation:
 - R&D strategy and delivery plan
 - Research result dissemination strategy and plan
 - Commercial exploitation strategy and plan

Data > Intelligence > Plans

- **State of the Art** (**how will you go beyond it – what new IP?**)
 - Academic papers
 - Patents and other registered IP
- **Market:** size, segmentation, distribution, growth, “needs and wants”
(what will you target, and how will you be positioned?)
 - Market reports
 - Industry partners
 - Patents and other registered IP

Data > Intelligence > Plans

- **Competitor Intelligence:** market share, technologies, current and future plans
(Where will you be positioned; what will your key differentiators/USP's be?)
 - Company websites, annual reports (incl. financial)
 - Market reports
 - Patents and other registered IP
- **Technologies:** other technical solutions which can address the objectives; their status, strengths and weaknesses
(Why will your technical solution be better, and in which areas?)
 - Technical reports
 - Industry partners
 - Patents and other registered IP

Data > Intelligence > Plans

- **Potential Barriers/Obstacles:** IPR's (freedom to use), statutory requirements, industry standards, health & safety requirements
 - Statutes
 - Standards
 - Patents and other registered IP
- **Standards:** prescriptive, advisory, best practice (barriers or opportunity)
 - www.iso.org
 - www.cen.eu

Standards

- Standardization is identified in Horizon 2020 as one of the measures that will support market take-up of research results and innovation.
- Help on addressing standardization in Horizon 2020 projects is available from CEN-CENELEC.
- For more information see:
<http://www.cencenelec.eu/research/tools/horizon2020/>
- Download guide from:
http://www.cencenelec.eu/research/news/publications/Publications/Standards_Horizon2020.pdf



STOP

*Implementing the project
**Governance, Structures &
Processes (Management)***

Implementation

Management **structures and procedures** to:

- **Create, capture and manage the research results (IP)**
 - The management framework (who is responsible)
 - The management procedures (how it will be done)
 - Establish good foundations and guiding principles/policies
 - IP management and protection strategies and procedures
- **Exploit the research results (IP)**
 - Assess the opportunities
 - Exploitation strategies and plans
 - Exploit/Extract value from research outputs
 - Dissemination and communication of research outputs

Management Structure & Work Plan

(related to impact and innovation)

Management

Top level management
(e.g. Project board, Project Manager)

Tasks and Processes

- Consortium Agreement
- Access and usage rights (foreground, background, during and after project)
- Ownership of foreground
- Management of foreground
- Exploitation of foreground
- Cost and Revenue sharing
- IP Policy
- IP awareness (training for researchers)

Management Structure & Work Plan

(related to impact and innovation)

Management	Tasks and Processes
Exploitation Management (e.g. Innovation Manager, Exploitation Manager)	<ul style="list-style-type: none">• Commercial exploitation strategy, plan and implementation• Scientific exploitation strategy plans and implementation• Business Plan• Project result dissemination as appropriate to support exploitation objectives
Communication/ Dissemination Management (e.g. Communications Manager)	<ul style="list-style-type: none">• Project dissemination strategy, plan and implementation• Support to exploitation communication activities• Community building• Public awareness

Management Structure & Work Plan (related to impact and innovation)

Management

Research Management
(e.g. Project Manager, WP
Manager, Technical
Managers)

IPR Management
(e.g. IPR Manager,
Innovation Manager)

Tasks and Processes

- Good research practice
 - Record Keeping
 - Recognising and capturing IP
 - IP disclosure to IPR Manager
-
- Assessment and protection of IP
 - Pre-publication reviews
 - Access and usage rights (foreground, background and 3rd party), during and after project)

Evaluation Criteria - Implementation

- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources
- Complementarity of the participants within the consortium (when relevant)
- **Appropriateness of the management structures and procedures, including risk and innovation management**

(What is Innovation Management all about?)



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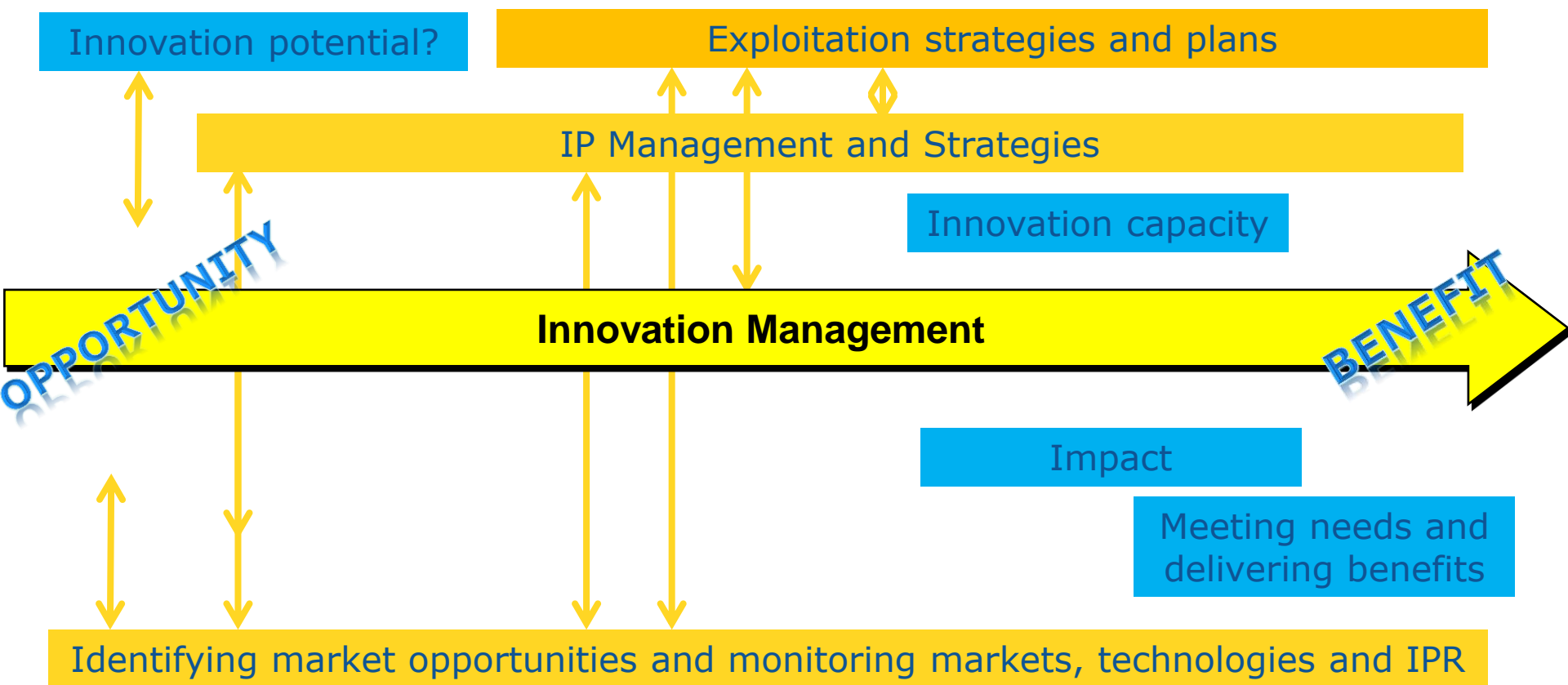
Innovation Management

Innovation Management

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.

Idea to Innovation



Key Issues

- Innovation Management
- IPR Management (including ownership)
- Exploitation Management
- Addressing Barriers/Obstacles (i.e. freedom to use)
- Standards/regulations
- Enhancing Innovation Capacity

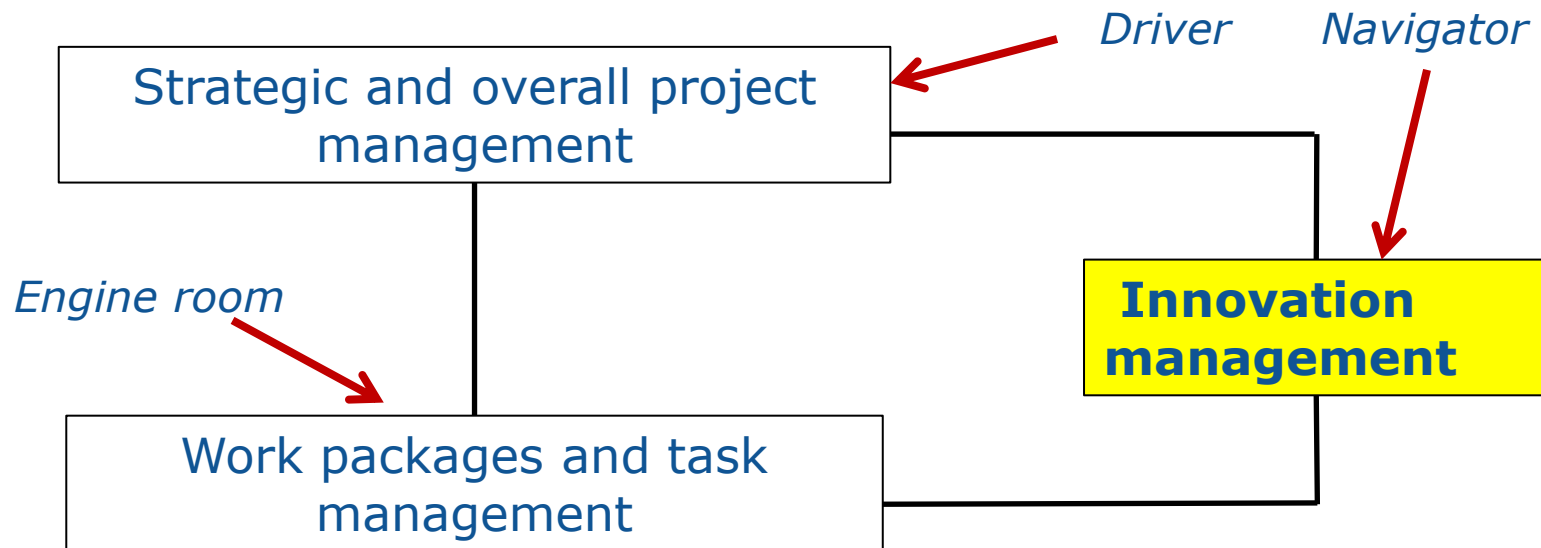
Innovation Management

From Opportunity to Benefit

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.

The management framework



Someone must be responsible for managing all activities related to innovation, from market need through capturing the IP, to market deployment

Securing the foundations

(at the start of the project)

- Consortium agreement
- Agree IP access, usage rights and policies (foreground, background, during and after project)
- Agree IP exploitation policies
- IP awareness training for participants (to avoid IP value leakage)
- Ensure good research practice (GRP) training and procedures in place

Processes to Capture the IP (during the project)

- Record Keeping (part of GRP)
- Help researchers to recognise and capturing IP
 - Regular reviews/training/feedback
- Facilitate IP disclosure (to IPR Manager)
 - Standard “disclosure forms”
- Pre-publication review procedures
- Ensure appropriate access and usage rights (foreground, background and 3rd party). Processes to manage.

**Capturing the IP
is only the start!**



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Exploitation Management

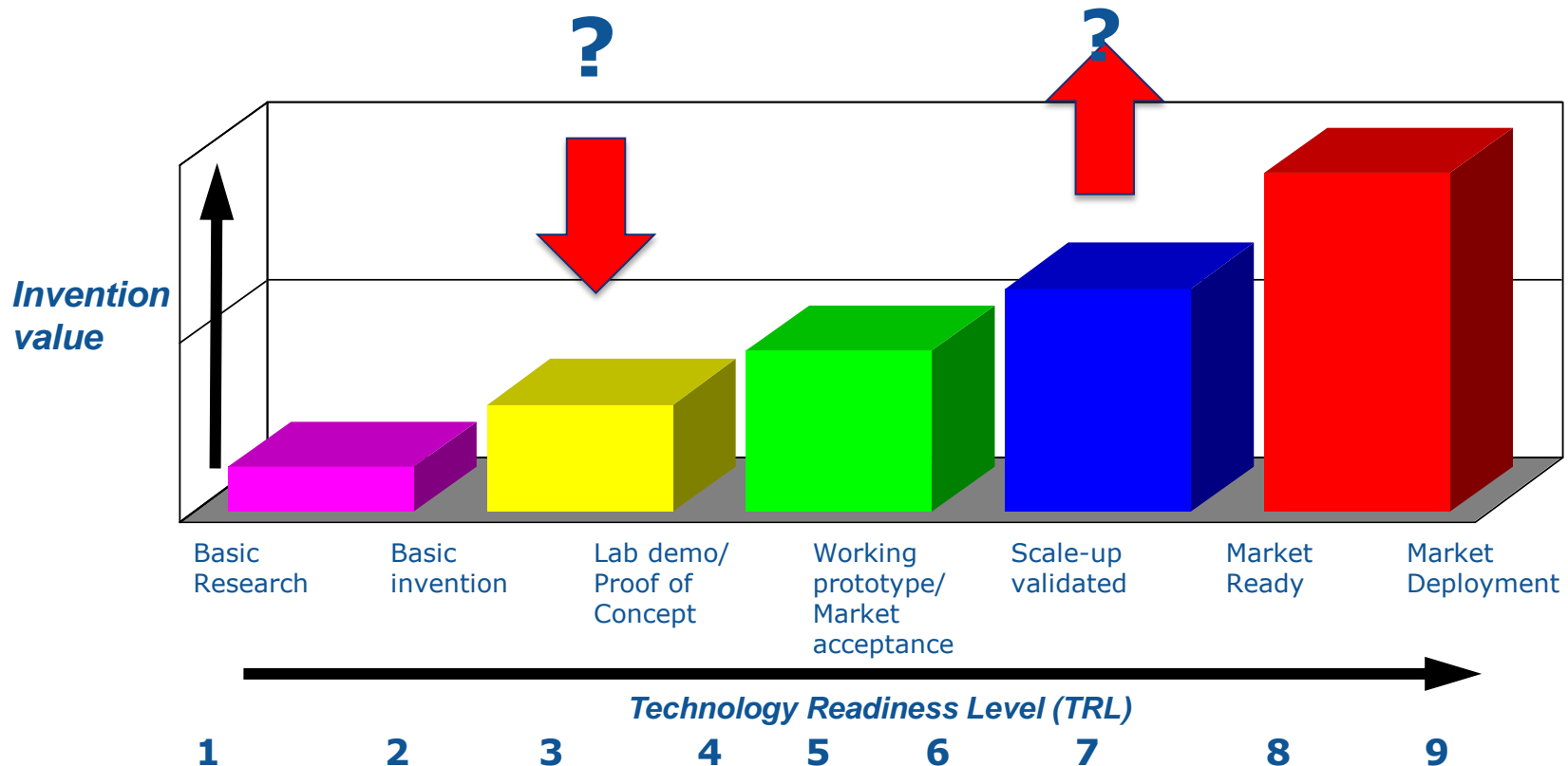
Exploitation Management

Policies and strategies – the exploitation roadmap

- Exploitation might be **commercial or research**
- Preparation of exploitation and commercialisation strategies (and plans, if appropriate) - **including the project results as a whole**
- Coordination of individual partner's exploitation plans to avoid conflicts
- Preparation of more detailed strategies and plans during the project
- Adapting to changes and trends in market and technologies

Technology Readiness Levels

Where are you starting from and where do you want to go?



Exploitation Management

Practicalities to address

- How far down “TRL” road to go?
- Expected business models (licence, start-up, JV, etc)
- Do you need to licence in 3rd party components, etc?
- Prepare a draft business plan or investment proposition, if appropriate (with financials)
- Prepare a marketing (communication/dissemination) campaign to support exploitation
- Might more investment needed?
 - what for (PoC, scale-up, company start, etc)
 - how much, where from

Nothing in isolation!

- IPR, Exploitation, Dissemination management are all closely interdependent
- They are all an integral part of innovation management – but are different activities.
- They rely on understanding the IP, technical and commercial landscapes

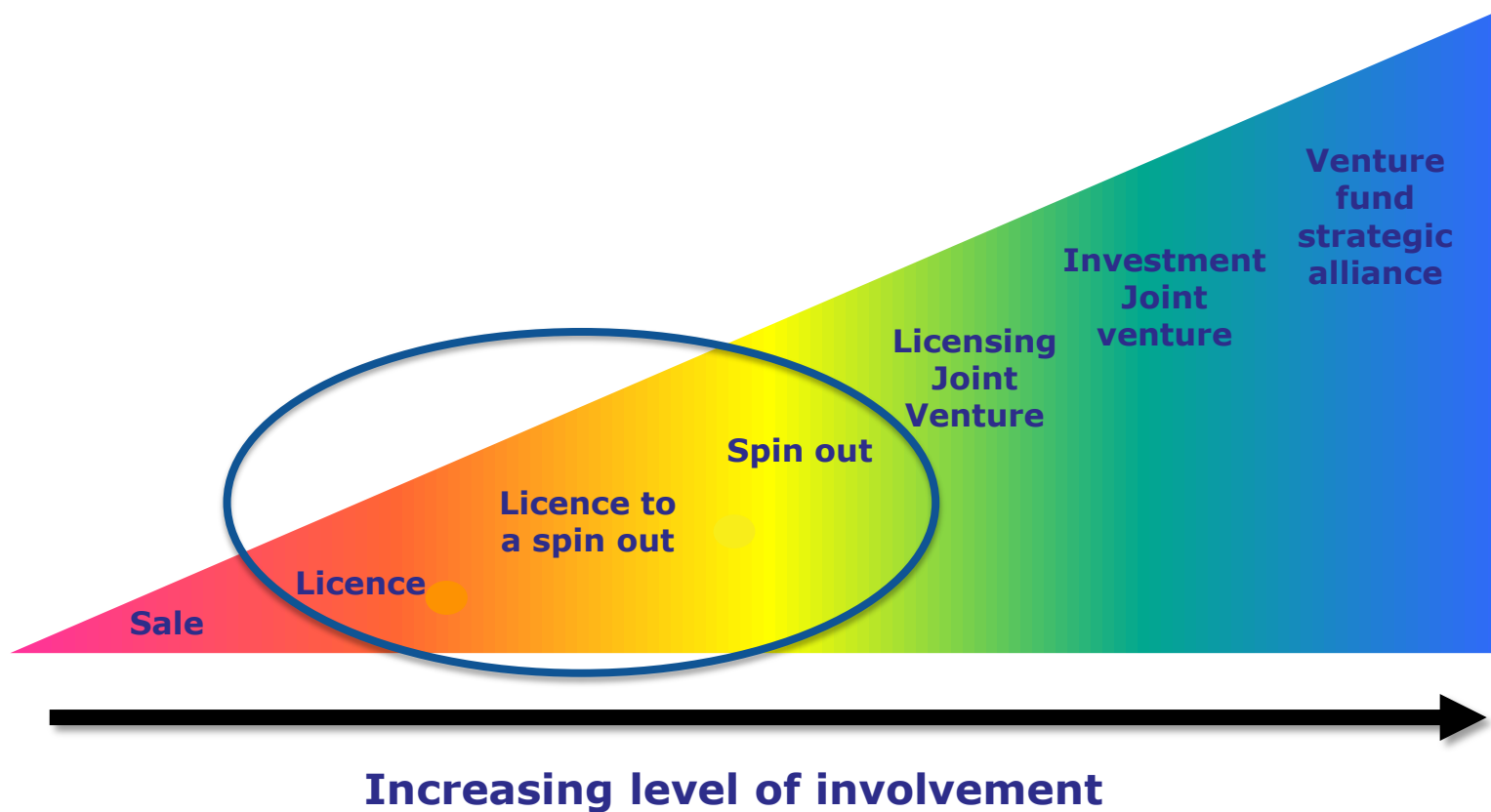


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***Choose the best exploitation
route(s)***

Many Different Business Models



What exploitation route?

- Sale?
- **Start a new company?**
- **Licence to an existing company?**
- Joint Venture?
- **Further research?**

Licence or Start-up?

Market & Technology

Licence	Start-up/Spin-out
Established markets and suppliers	New market for new suppliers
Evolutionary/incremental technology	Revolutionary or platform technology
The IP fits a gap in someone else's portfolio	The IP can deliver a unique and independent business advantage
The IP is a one-off stand-alone invention	There is a pipeline of potential products

Licence or Start-up?

Finance and return on investment

Licence	Start-up/Spin-out
Low financial commitment	More capital more risk
Can have early returns	Returns take longer (via IPO or trade sale)
Licensee might fund further R&D with inventors	Company will need to finance further R&D
The inventors have no interest in a commercial role	The inventors are interested in a commercial role

Summary

- Impact and Innovation needs to be addressed in **all 3 sections** (excellence, impact and implementation) of a proposal
- Proposals must demonstrate an understanding of **all aspects of the “landscape”** (market, technical, IPR, SOTA, Competitors, etc), and analyse it to obtain **strategic intelligence..**
- ..to **select and justify** the project objectives and to **plan** the best route for achieving them (strategies, methodologies and plans)
- The implementation plan must ensure that there the management **structures, processes and governance** are appropriate and sufficiently comprehensive (for IP) to ensure project results are effectively **captured, managed, protected and exploited**

Thank you. Questions?

For further questions and general IP advice, please contact our Helpline team:

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