AESIS
NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

META
knowledge to market

10/12/2021

How to increase the strength of your Horizon Europe application through the D&E plan

Andrea Di Anselmo
9.00 – 9.50

META: 25+ years of experience in «Knowledge To Market»

The DG RTD

main contractor to support funded projects with Exploitation and dissemination services

HORIZON RESULTS BOOSTER

An initiative of the European Commission

https://www.horizonresultsbooster.eu/

- **bringing knowledge to market**, helping researchers and entrepreneurs in exploiting the results of their project and commercialising their ideas
- **running European research-support services** as **Horizon Results Booster, IP Booster**, ESIC, SSERR and CSSERR framework contracts (DG RTD)
- **training** & **coaching** on how to communicate and pitch research **results**
- **engaging** with a variety of **stakeholders** from Public agencies to early-stage investors across Europe

Framework contractors of DG RTD since 2012

1’300 research consortia supported in exploiting research results

More than 15’000 R&D projects participants coached and tutored

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Goals for the day

- **Clarify** links between:
  - **impact** and **KERs** (Key Exploitable Res.)
  - **impact** and **use of** KERs
- **Understand** how maximise impact with exploitation and dissemination in **HE**
- **Introduce** few tools

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Background

- Thousands of R&D **projects** funded by the EC and other donors ended or will approach their end in the years to come.
- Only very few **results** from such projects are **used** or **reach** the market.
- **Transforming** results into **benefits** for the society, **maximising** the scientific, social, economic, technological and policy **value** of public funding, **is a must**.
- This transformation passes through the successful **implementation** of **Dissemination** and **Exploitation** (D&E) activities.

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No use no impact!

Some examples to discuss

As a result of some research involving people experiencing homelessness, a university researcher was invited to present the research to a Parliamentary Group.

Example from Coventry University

What is it?
Is it impact?

No, not yet. It's "dissemination".

A researcher has carried out extensive research into tyre testing methods. As a result, a large automotive company adopt the new methods, resulting in considerable efficiency savings.

Example from Coventry University

What is it?

What do you need to know to answer?

a) Outcome (as it is described)

b) It would be impact if energy savings in the long term will be as expected or better

Following their extensive research into exhaust system design, a university researcher has set up and led a Special Interest Group, which has involved regular meetings attended by policy makers and industrial partners.

Example from Coventry University

What is it?
Is it impact?

NO, it is part of dissemination activities to reach out early adopters and stakeholders after project ends.

A researcher's findings have attracted media interest. There have been newspaper articles in a number of broadsheet newspapers, local newspapers and an interview on local radio.

Example from Coventry University

What is it?
Is this impact?

No this is communication!

Research into musculoskeletal modelling has revealed that current practice for extracting casualties from crashed vehicles is not the best method. As a result, the National Fire Service changes safety protocols and these are implemented across the UK.

Example from Coventry University

Is this impact?

No!

It does not identify the wider long-term effects on society, economy and/or science. It is an outcome!

A researcher at the university has developed a novel algorithm with broad potential for real world applications. As a result, a spin-out company has been established with 5 employees.

Example from Coventry University

Is this impact?

NO, It is part of the exploitation actions. It is still not an "enabler" for impact – so it can not be considered an outcome.

Usable R&D results are not mythological creatures

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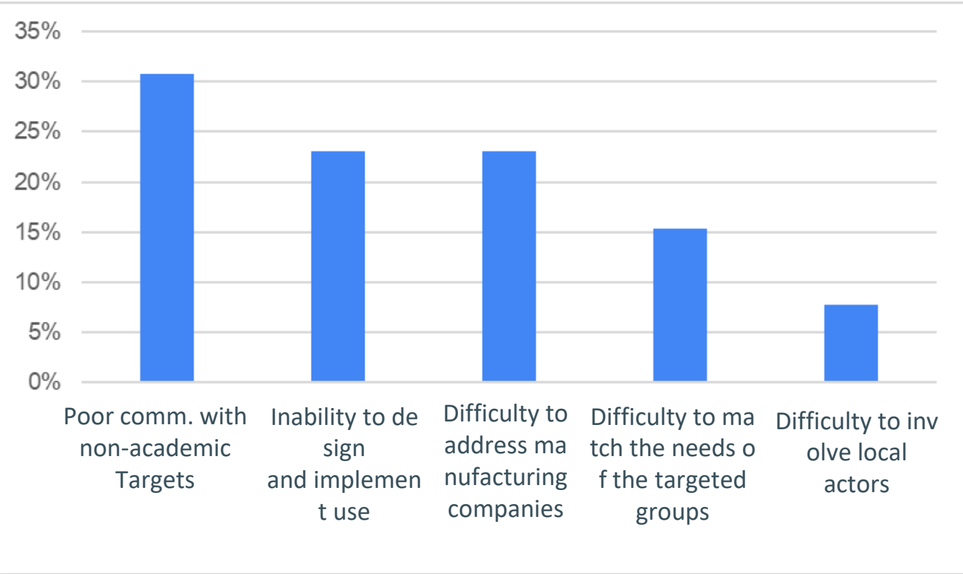
USE of R&D results in SSH
(Case study – University of Macerata (September 2021)

Among researchers in SSH there seems to be resistance to seeking "non-academic" impacts of their research*.

** The output and impacts of social sciences and humanities research*, Eric Archambault.



Misunderstanding of the use potential of a result beyond informing stakeholders

Responses show a bias towards technological results

Survey on «Use and impact of R&D results in SSH - feedback from researchers - University of Macerata Settembre 2021.

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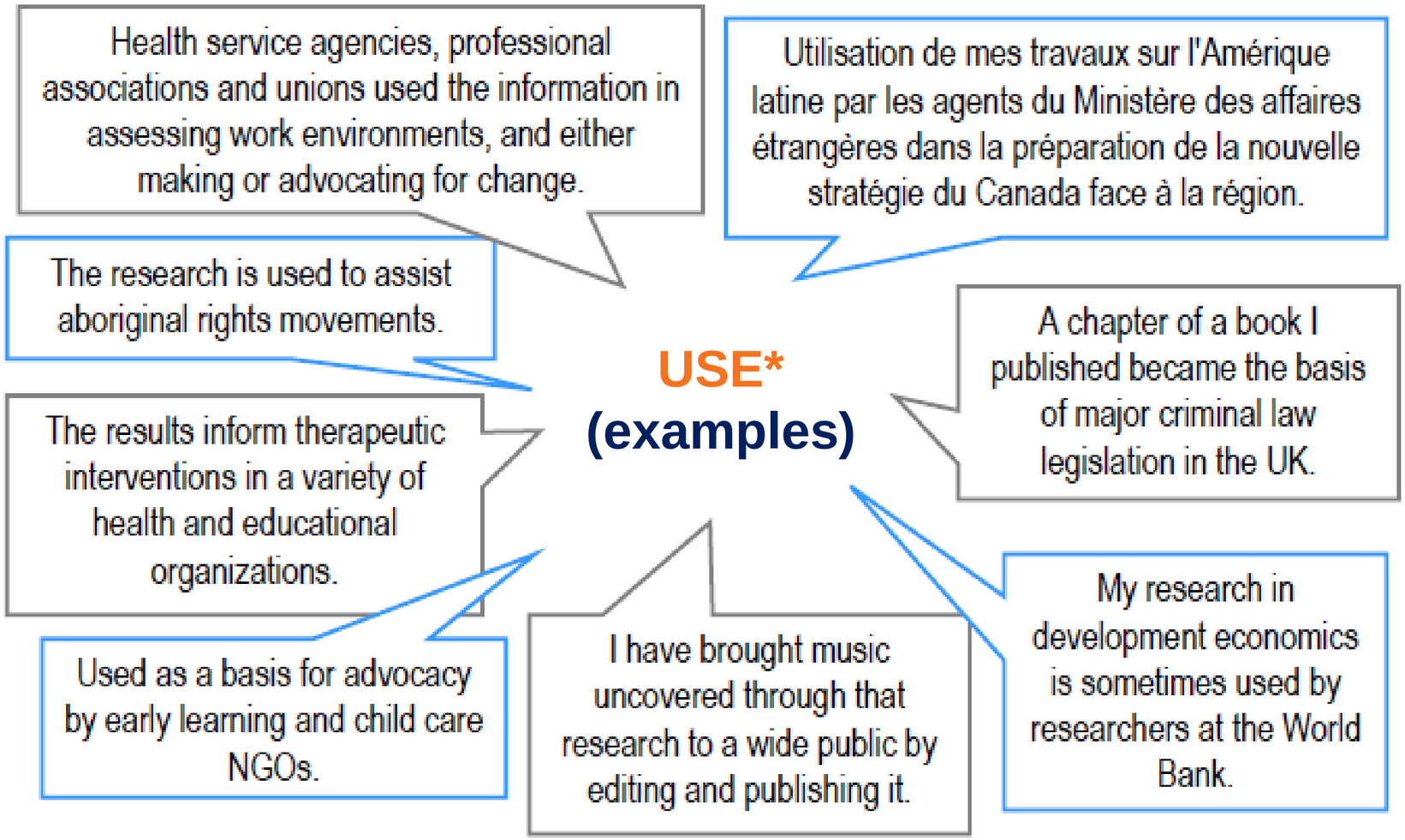

** The output and impacts of social sciences and humanities research*, Eric Archambault.

Impact areas - SSH

SSH* examples - cont

WORKALO (2001-2004) - Creation of new occupational patterns for cultural minorities: The Gypsy Case" **generated effective partnerships** between researchers and other stakeholders in improving employability.

Their labour insertion was more successful in comparison to other courses, with an **80%** success rate, whereas these types of programme usually do not achieve more than a **20%** rate for labor market inclusion.

**State of the art in the Scientific, policy and social impact of SSH research and its evaluation, IMPACT-EV*

Why it does not happen - lessons learned from H2020 on impact

What to avoid when preparing a proposal!

(Based on lesson learned from H2020)

D&E = Tick boxes, and not real work	Focus on excellence vs. users' needs	Lack of competences (or interest) to share results
Not highlighting D&E opportunities (problems, market ..)	Impact not truly part of the project design from the start	D&E sold as an "after-project" activity

What to have in **mind** when **designing** a project proposal in **HE**:

Impact is linked to outcome - results - use of results

The **meteorite** is the “**KER**”

The **planet** is the “**destination**“ (transformation to be fostered, economic, societal, etc.)

“**impact**” is the **long** term “**effect**” **enabled** by the “**outcome**” (thanks to the **USE** by the “**target groups** of **KERs** ”)

“**Effect**” is the “**benefit**” derived from the “**USE** of a KER thanks to the implementation of a **pathway** to impact”

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Maximising impact: exploitation – dissemination

Exploitation

- How to achieve impact!

Dissemination

- is how to reach out problem owners, “customers”

CAREFUL!

«AMAZING» PROJECT **RESULTS**

≠

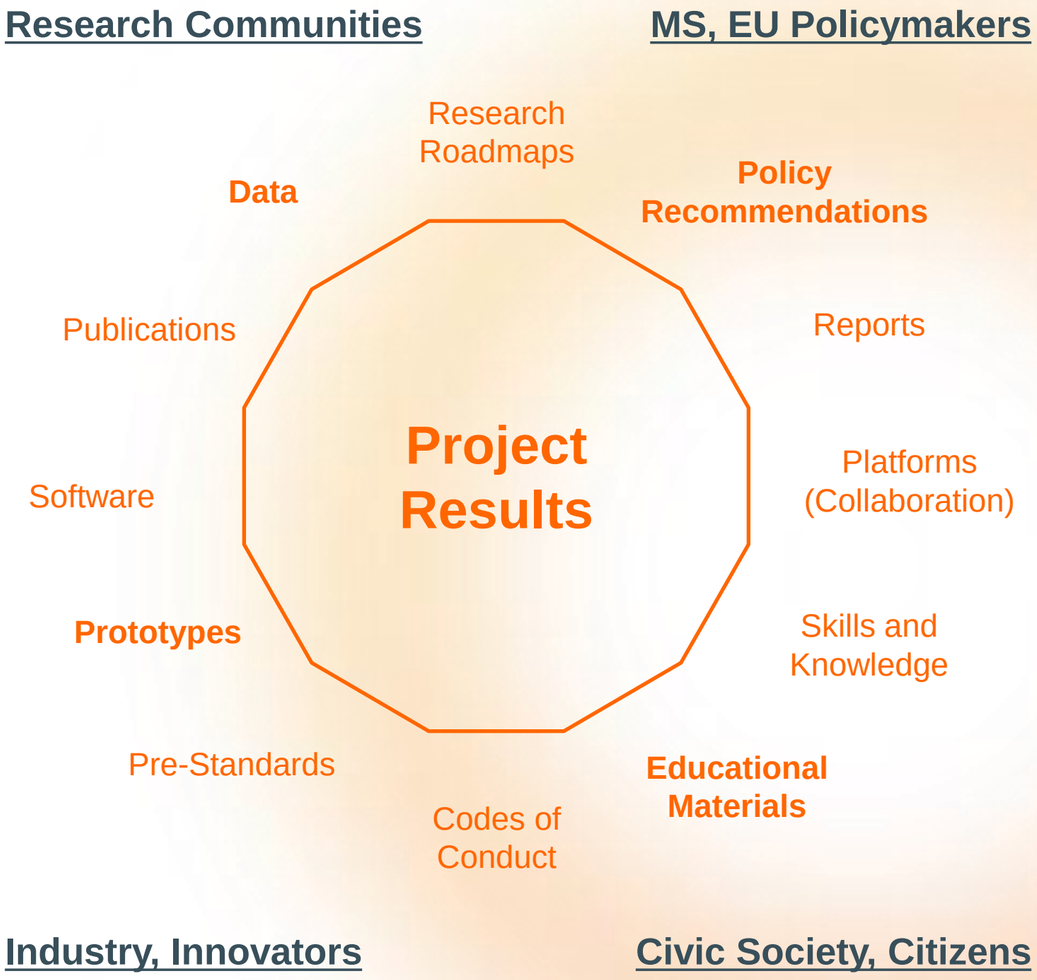
«AMAZING» **IMPACT**

No use no impact!

Results

Results' means any **tangible or intangible effect of the action**, whatever its form or nature, whether or not it can be protected, as well as any attached rights

Project results can be **reusable** and **exploitable as such**, or elements (knowledge, technology, processes, networks) that have potential to **contribute for further work** on research or innovation



Source EC

Meteorite: not just a result but the key exploitable result (KER) which can be used and create impact

- Responding to specific **needs,** to the demand of a well-defined group of **“customers”**

- Selected by the partners for **use** and/or **market** introduction

- A prototype (product or process…)
- A new service…
- input for standard…
- Input for policy measures
- New training courses…
- Input for a new project…

- **It is not a patent**…

USE

USE can be

commercial, societal, political or for

improving public knowledge and **action**

Partners can:

exploit KERs themselves

or

facilitate their use by third parties

USE - can be direct or indirect (both?)

Direct – by themselves:

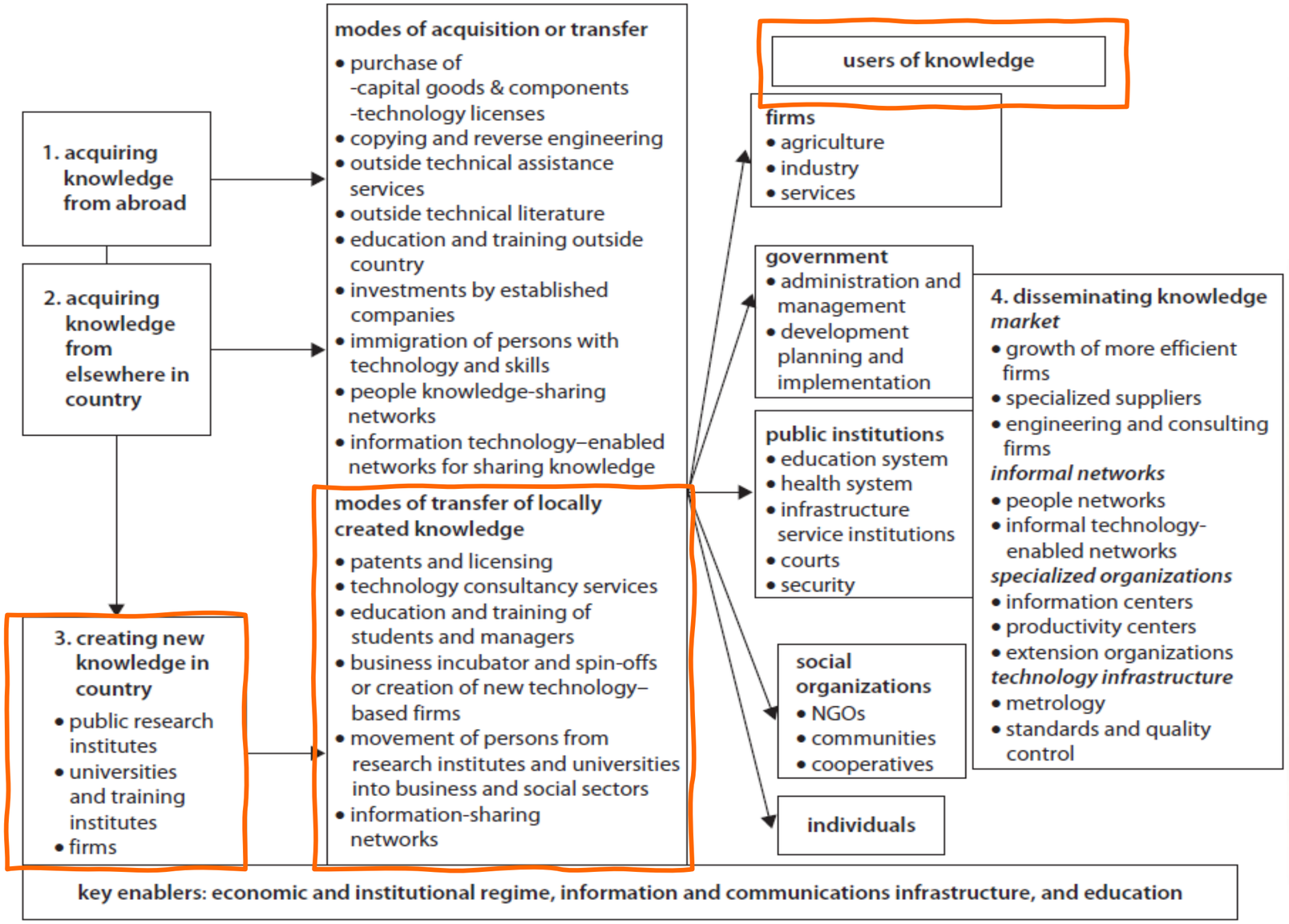
- Background in **further research** activities (low TRLs);
- developing and selling a product or process (high TRLs);
- **providing** services (consultancy – **contract research**);
- using results in **standardisation** activities;
- new **policy** measure (if the partner is a policy maker)

Indirect - by third parties:

- **transfer** of results;
- **licensing**;

A spin-off is always linked to an indirect use

SSH - Use of knowledge



Fonte: *Innovation Strategies of the BRICKS: Brazil, Russia, India, China, and Korea Brazil, Russia, India, China, and Korea: Different Strategies, Different Results* – Carl J. Dalhman - 2008

EXPLOITATION

IS NOT

IT IS

how to achieve **impact**
with
long term sustainability

Exploitation - make use of – a sustainable «**value**» driven **process**

"Value/benefit" can have different meanings:

- **Revenues** (**commercial** use with customers ready to pay);
- **Fulfilling an existing gap** (**not for profit**, better services, improved delivery processes, policies);
- Increase of the **intangible assets** in the organization/community (distinctive skill set, standards, etc.)

Contractual obligation

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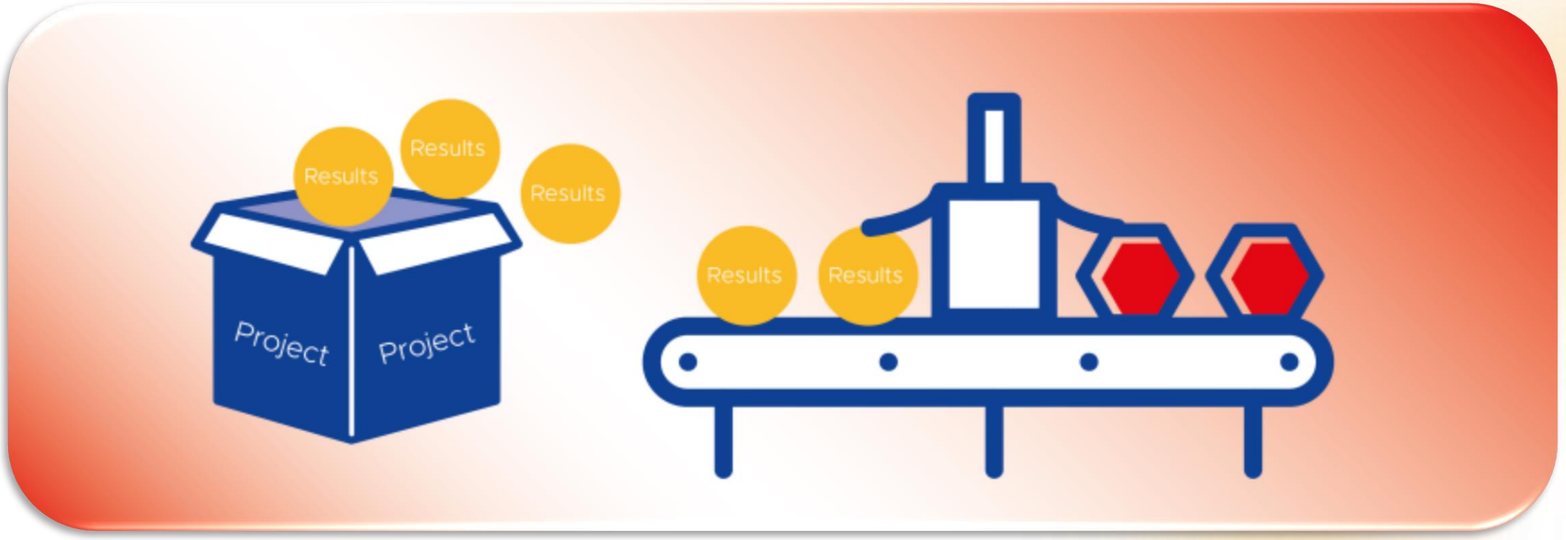
Proposal stage: focus on the pathway to impact

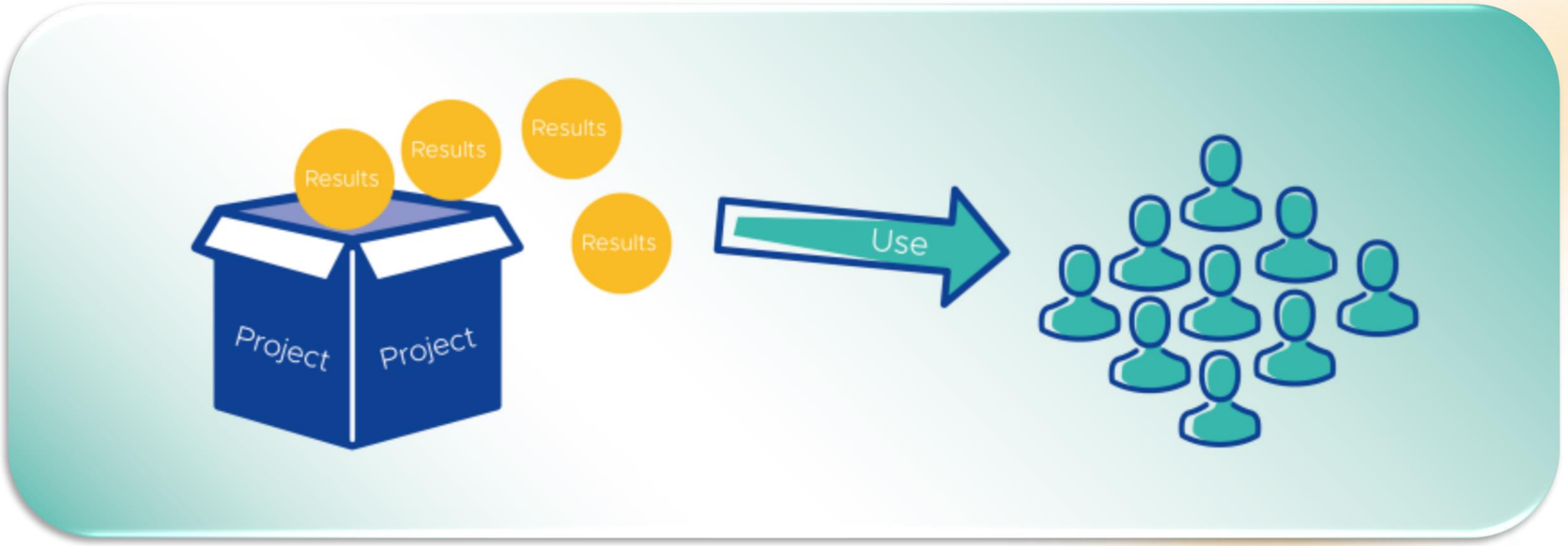
- *"**Logical steps** **towards the achievement of the expected impacts** over time, in particular beyond the duration of a project".*
- *A pathway begins with the **projects' results**, to their **dissemination, exploitation and communication**, contributing to the **expected outcomes** in the work programme topic, and ultimately to the **wider scientific, economic and societal impacts** of the work programme **destination.**"*

Exploitation focusing on early adopters and use model



The **use** of **results** in further research and innovation activities other than those covered by the action concerned, including among other things, commercial exploitation such as developing, creating, manufacturing and marketing a product or process, creating and providing a service, or in standardisation activities.

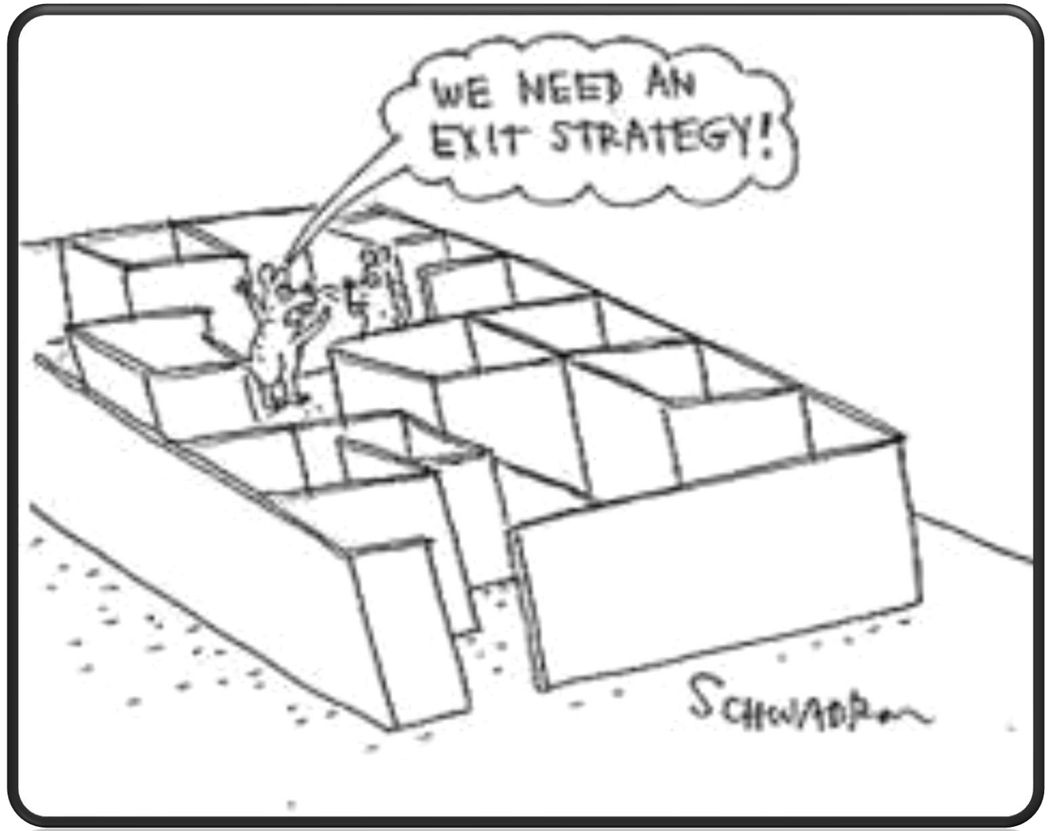
Dissemination focusing on early adopters (problem owners) and channels



The **public disclosure of the results by appropriate means**, other than resulting from protecting or exploiting the results, including by scientific publications in any medium.

Communication targeting general public, stakeholders

Communication measures should promote the project throughout the full lifespan of the project. The aim is **to inform and reach out to society and show the activities performed, and the use and the benefits the project** will have for citizens.



Exploitation

is not

Dissemination

is not

Communication

For proposal writing: dissemination vs exploitation

Dissemination	Exploitation
Describing and **making available results** so that they can be used	**Making use of results**, for scientific, societal or economic purposes
Audiences that **may make use** of results	Groups and entities that **are making concrete use of results**
All results which are not restricted due to the protection of intellectual property, security rules or legitimate interests	**All results generated during project** Participant shall make best efforts to exploit the results it owns, or to have them exploited by another legal entity

Making results available

- Scientific publication
- Policy brief/marketing materials
- Workshops, demonstrations
- Trade fairs
- Online repository/portals
- Pitching events
- Standardisation committees

Facilitating further use of results

- Innovation management
- IP Management
- Data Management plan
- Business plan
- Patent
- License agreement

Making use of results

- PhD thesis/ post
- Spin-off/ Start-up
- Further R&D
- Manufacturing
- Service provision
- Contract research
- Direct sales
- Educational activities
- Policy making - standard

For proposal writing: communication vs dissemination

Communication	Dissemination
About the **project** and **results**	About **results only**
Multiple audiences Beyond the project‘s community (include media and the public)	**Audiences that may use the results** in their own work, e.g. peers (scientific of the project´s own community), industry and other commercial actors, professional organisations, policy makers
Inform and **reach out to society**, show the benefits of research	**Enable use** and **uptake of results**

Newsletter

Press release

Project factsheet, brochures

Project website

Social media

Videos

Articles in magazines

Event presentation

Project website

Online repository

Scientific publication

Policy brief/roadmap

Workshops demonstration

Exhibitions/open days/guided visits

Participation to trade fairs

Something to be considered for dissemination – the pitch

To secure **resources** it is key to convince the director of our department or division or an investor.

Consider to present your KERs and **rise interest** in a very short time.

Prepare a pitch **avoiding science**, highlighting **novelty** and **added value**, showing confidence and **facts**.

Validation tasks will be key to collect data for your pitch and UVP

Please take a 10 minutes break…

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The impact section

Andrea Di Anselmo
10.10 – 11.00

Let’s keep in mind HE’s novelties compared to H2020

D&E = gained importance under HE

From the proposal, EC asks beneficiaries to think about D&E

The proposal form has been redesigned to identify the role of each partner

Increased availability of tools during and after the grant

Horizon Results Booster provides guidance to beneficiaries

HRP TV
Increased trainings and webinars

Working on the proposal – IMPACT SECTION (section 2)

Project's pathways towards impact (2.1)

- a narrative explaining how the project's **results** are expected create a **benefit beyond** the project timeline, with its unique contribution towards:
  - the **outcomes**
  - the **wider impacts** (scientific, economic/technological, societal)
- the **target groups** – specific and detailed
- **requirements** and potential **barriers**

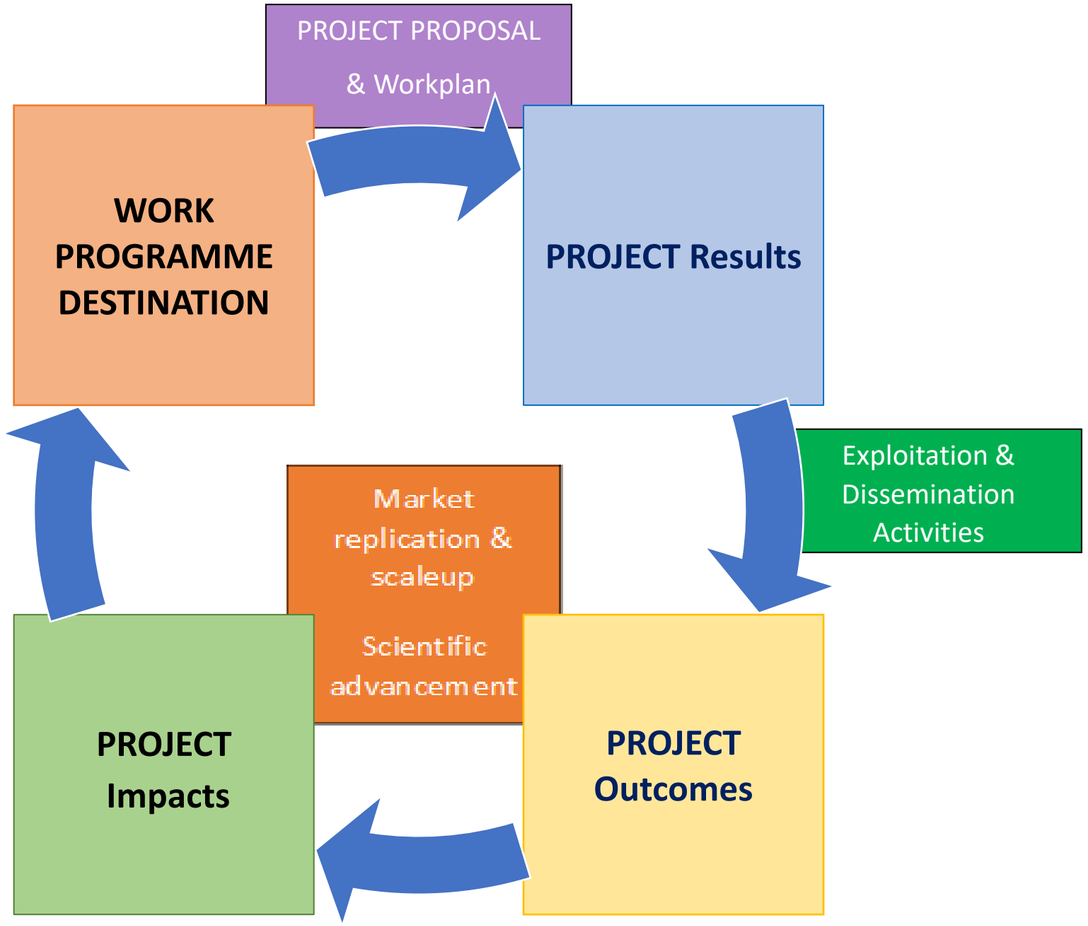
Measures to maximise impact – C&D&E (2.2)

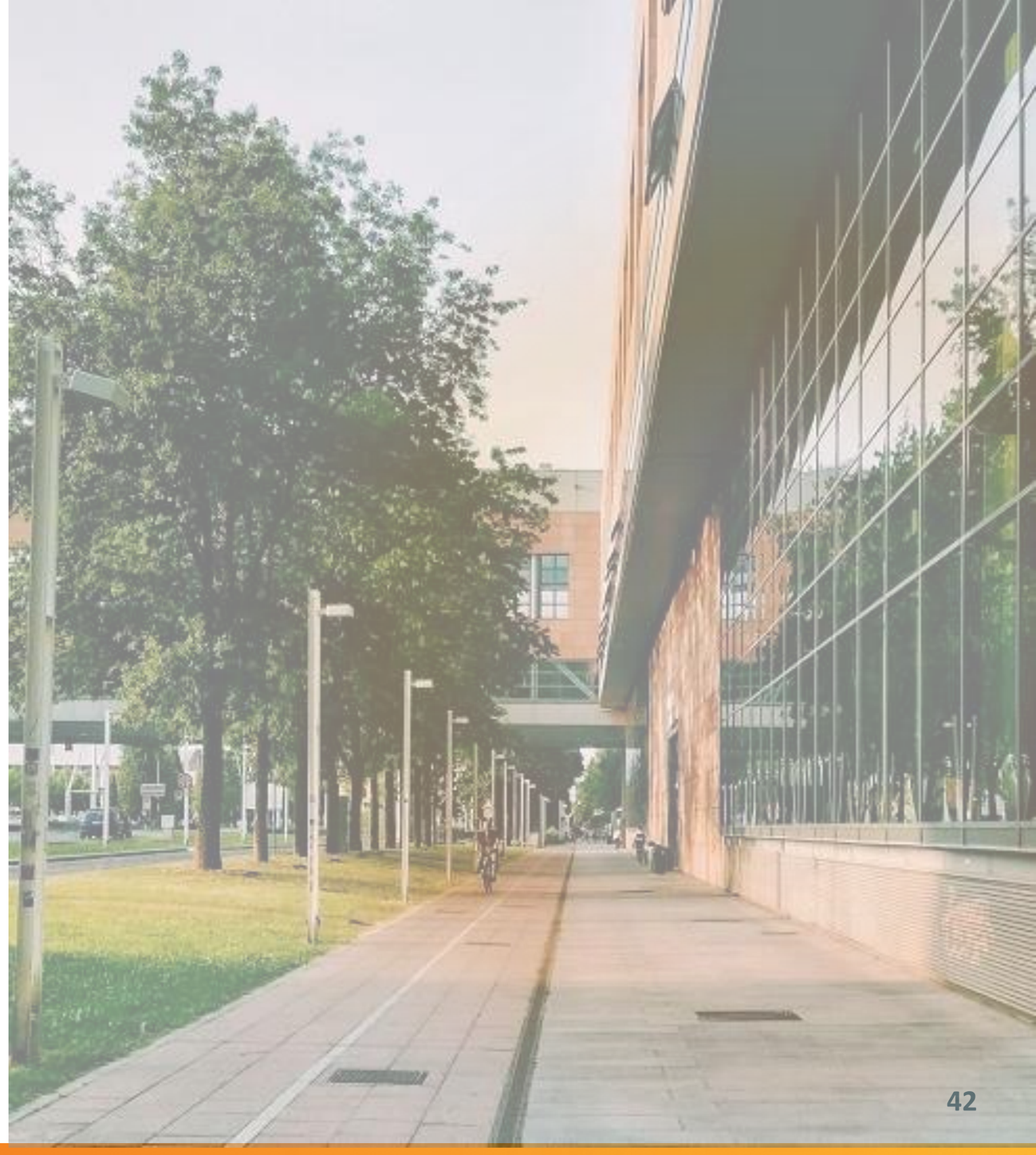
- **Planned measures** - a first version of the 'plan for the dissemination and **exploitation**" including communication activities (keep in mind **differences** and highlight **KPIs**).
- Outline the **strategy** for the management of **intellectual property**

Impact Canvas (2.3)

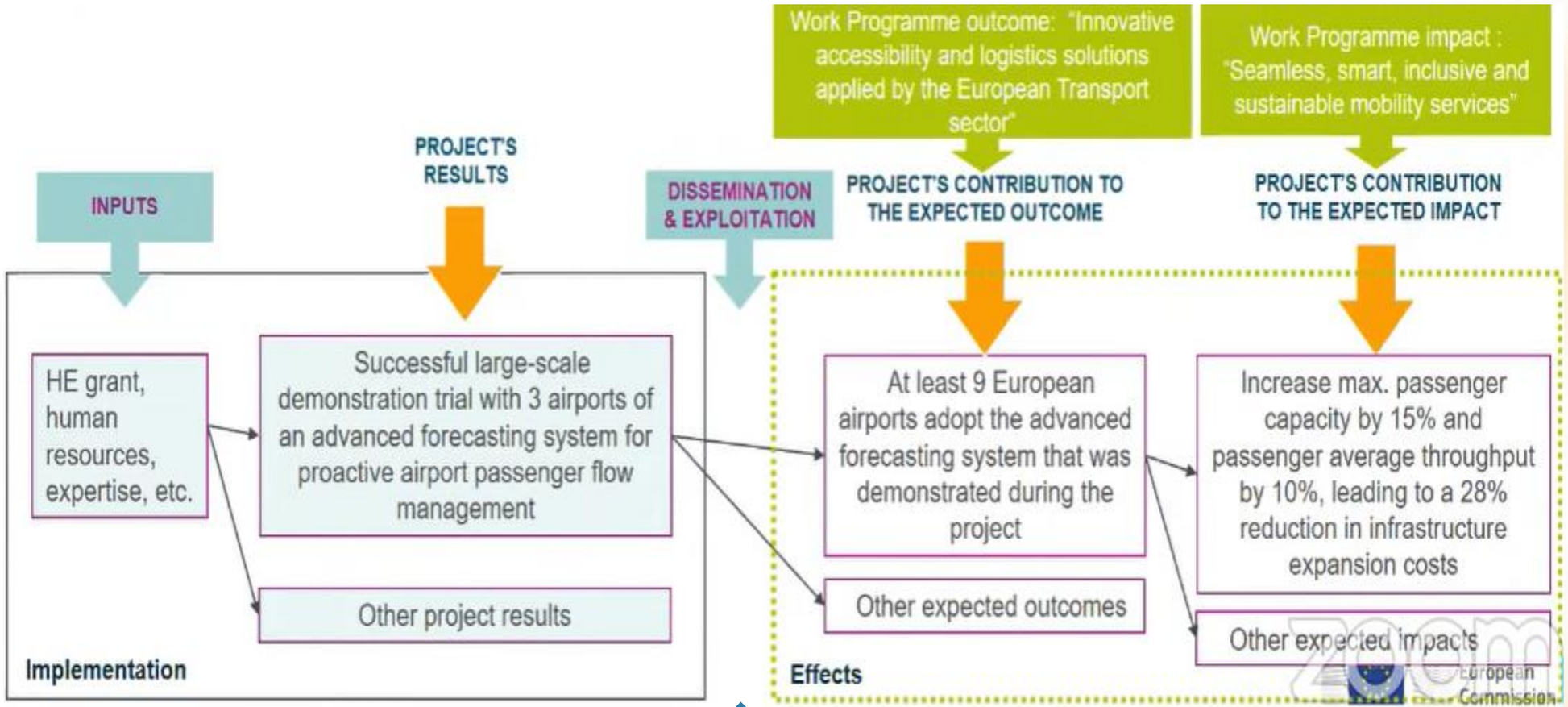
- **Summary** of the **key elements** of the project impact pathway and of the measures to maximise its impact.

2.1 – the impact cycle tool





Overall picture on impact - an example from the Commisison



Source EC

Dissemination and **exploitation** **bridge** implementation and effects

Outcomes enable expected **impact**

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Outcomes - igniting long term impact

Outcomes

The expected effects, over the short-medium term, of a project**.**
Results contribute to outcomes, fostered by the **dissemination** and exploitation **measures** (uptake, diffusion, deployment, and/or use of the project's results by **direct target groups**).

Outcomes generally occur **during or shortly after** the end of the project.

Pathway to impact

Logical steps towards the achievement **of the expected impacts**

A pathway begins with the **projects' results, to their dissemination, exploitation and communication.**

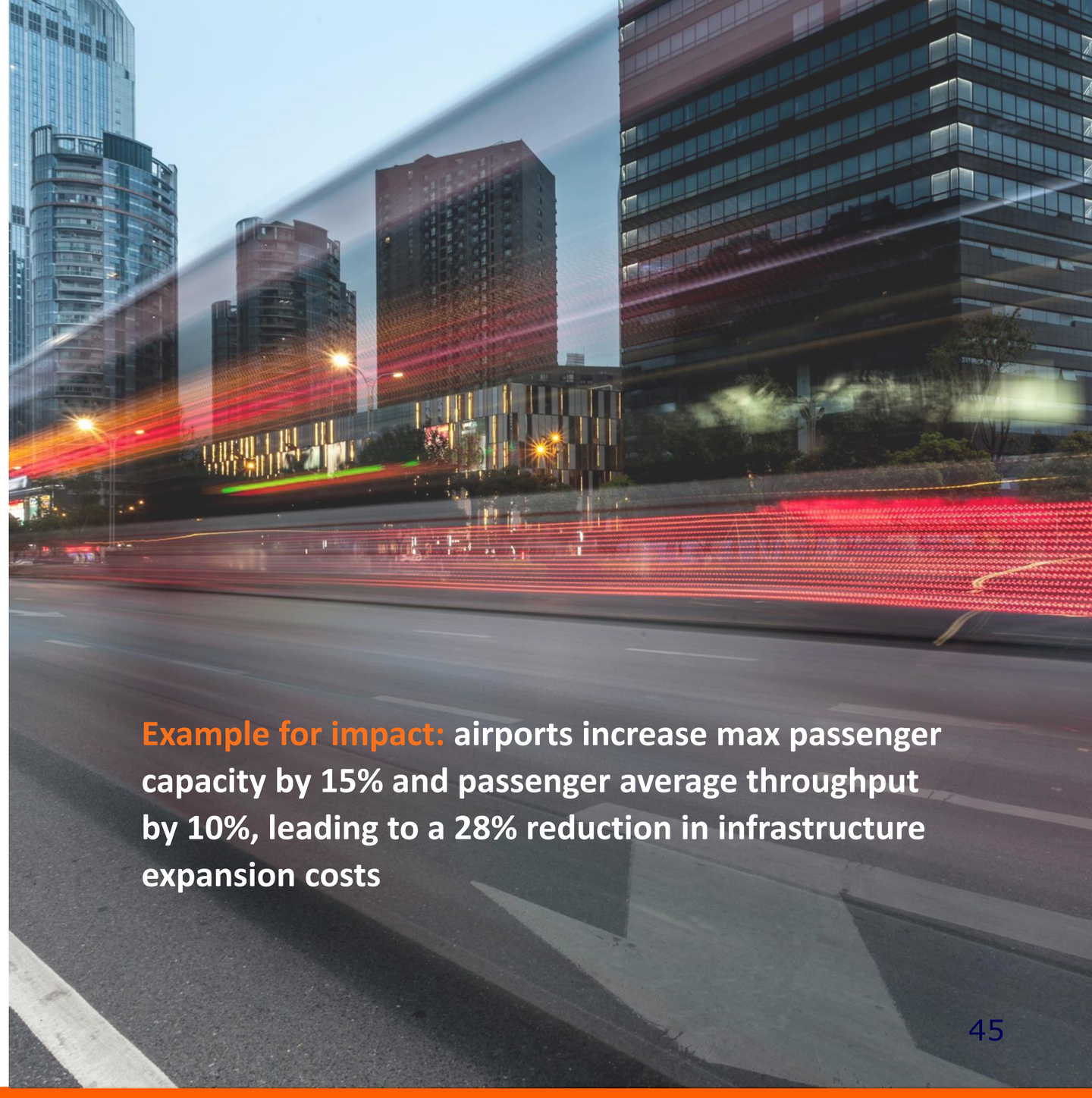
Impact in Horizon Europe

Impact

Wider long term effects on society (including the environment), the economy and science,

It refers to the **specific contribution** to the work programme's expected impacts described in the destination.

Impact is enabled by the outcomes of R&I investments and generally **occurs some time after the end** of the project.



Example for impact: airports increase max passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs

2.2 – describe measures to maximise impact

Dissemination, exploitation and communication

To include a draft plan in proposal is an admissibility condition, unless the work programme topic explicitly states otherwise.

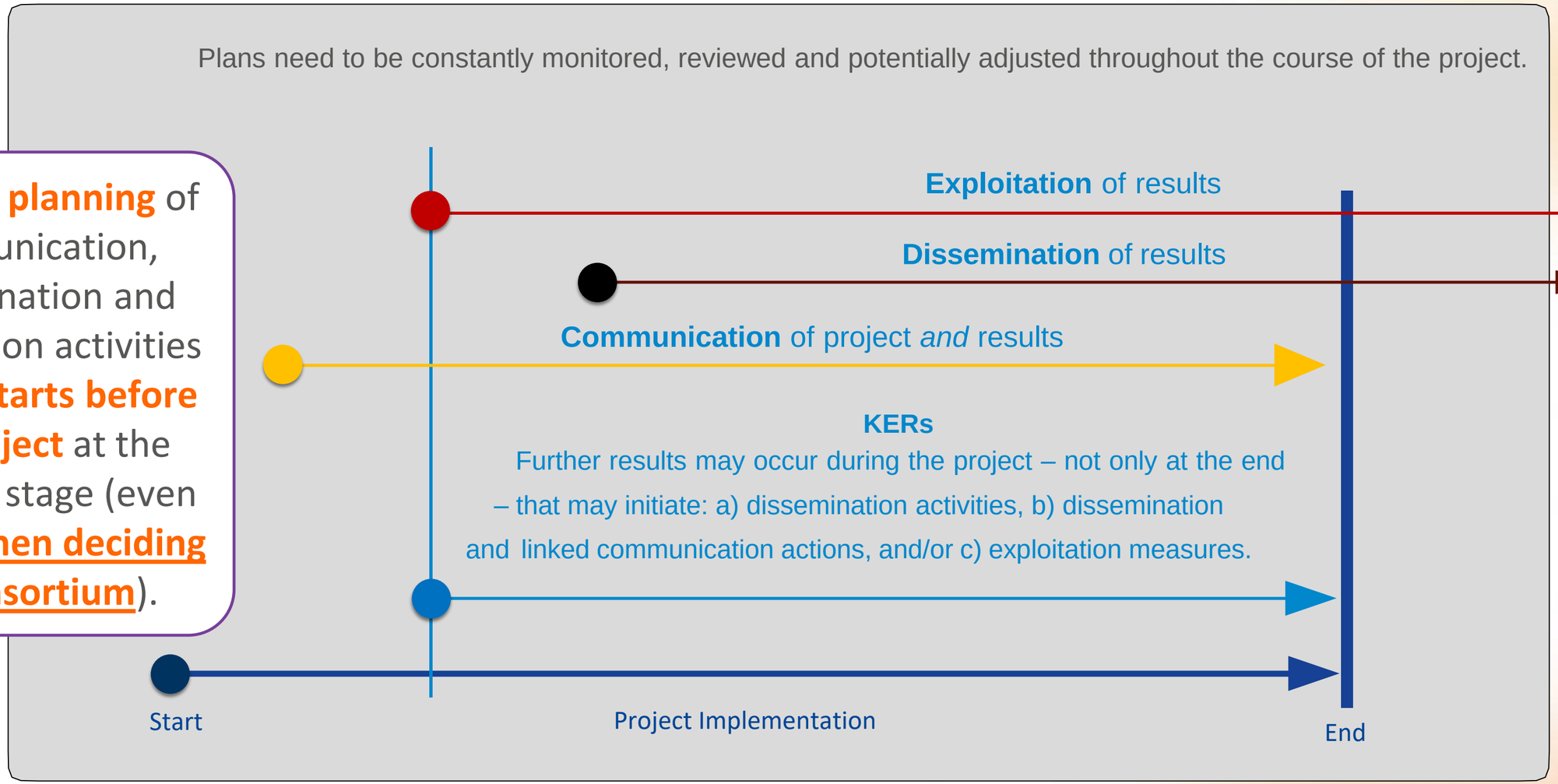
All measures should be **proportionate** to the scale of the project, and should contain **concrete actions** to be implemented both **during and after** the end of the project

Elements of the D&E&C plan

- **Planned measures** to maximise the impact of projects
- **Target groups** (e.g. scientific community, end users, financial actors, public at large) and **proposed channels** to interact
- **Communication measures** for promoting the project and its findings throughout the full lifespan of the project
- **Policy feedback** measures to contribute to policy shaping and supporting the implementation of new policy initiatives and decisions
- Follow-up plan to foster **exploitation/uptake** of the results

Measures to maximise impact - Timing

Strategic planning of communication, dissemination and exploitation activities already **starts before the project** at the proposal stage (even earlier **when deciding on consortium**).



Actions planned during the project and performed **after the project ends**

2.3 Impact canvas

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
What are the specific needs that triggered this project? **List here the needs you are addressing among the ones presented in the DESTINATION part of the call.**	What do you expect to generate by the end of the project? **List Here the Key Exploitable results (KERs) you are planning to develop by the end of the project, to respond to the call.**	What dissemination, exploitation and communication measures will you apply to the results? ▪ **Exploitation:** describe here how you are planning to use the KERs. For example: Are you using them internally or outside the partnership? ▪ **Dissemination:** Have you already an idea how to disseminate KERs? ▪ **Communication:** Have you an idea how to communicate the project.
TARGET GROUPS	**OUTCOMES**	**IMPACTS**
Who will use or further up-take the results of the project? Who will benefit from the results of the project? Provide a first list of potential "**customers**" of the expected KERs, considering how you are planning to bring them into use.	*What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?* ▪ List here	What are the expected wider scientific, economic and societal effects of the project contributing to the expected impacts outlined in the respective destination in the work programme? ▪ List Here having in mind the outcomes.

No use no impact

Tools

Characterisation Table

- A tool to **define information** for each KER
- It summarises the **main features of a KER** and on the proposed exploitation route.
- It follows a problem oriented (demand driven) logic, it does not focus on the **scientific** dimension of the KER but offers a snapshot of the key elements to be considered when dealing with **use**.
- Information summarised in the characterisation table is the **base for** the **D&E plan**/business plan for the result.

Characterisation Table

- problem addressed and alternative solutions
- unique value proposition
- description of the KER.

Profiling Key Exploitable Results (KERs) 1/3

KER - Problem	The problem you are addressing (the problem your "**customer**" has). “Customer” is meant here as the people, companies, organisations, etc. who **own** the problem and will **use**/adopt the result.
KER - Alternative solution	How your customer, the problem owner, has **solved** the problem so far or is attempting to solve it today.
KER – UVP, USP	The **competitive advantages**, what your solution/finding does better (innovative aspects), what distinguishes it from the competition/current solutions?
KER - Description	Your solution/finding (i.e. product, service, process, standard, course, policy recommendation, publication, etc.). Illustrate how your solution solve “customers” problem/s.

Profiling Key Exploitable Results (KERs) 2/3

Market – Target market	The market in which your solution (product/service/finding) will be used/can "compete", answer the following questions: - What is the size? - Who are the **customer segments**?
Go to Market – Use model	Explain what is your “business model”, **how the KER will be put in use** (made available to generate an impact).
Market - Early adopters	Who might be the **early adopter** (those you might address first). The ones who fill the problem harder.
Market - Competitors	Who are your "**competitors**" (note: they are the ones offering "alternative solutions)? What are their strengths and weaknesses comparing to you?

Profiling Key Exploitable Results (KERs) 3/3

Go to Market – IP	What is the **Background** (type/partner)? Provide information considering also what already agreed in the Consortium Agreement.
Go to Market – IP	What is the **Foreground** (type/partner)? Provide information considering also what already agreed in the Consortium Agreement. Need to sign further agreements?
Go to Market – Timing	What is the time to market?

OUTCOME TABLE

Use model	Early adopters	Partner(s)	Expected outcomes	Project outcomes	Linked WP
KER 1					
KER 2					
KER 3					

IMPACT TABLE

Impact category	Expected IMPACTS	PROJECT contribution	Target groups
Economic			
Scientific			
Societal/ environmental			

Paving the way to sustainability - Roadmap

- The highest risk a consortium faces is not being able to **implement** the exploitation and dissemination plan and **increase the TRL or** go to **market**, due to lack of resources.
- The exploitation roadmap is designed to mitigate this risk and focus on the "**pathway**" to pave to way toward **use** and a stronger **impact**.
- The roadmap **helps** the consortium to identify **actions** and their **planning** after the **end** of the project.

Exploitation roadmap

KER 1	
Actions	Briefly describe actions planned to be executed 3-6 months after the end of the project.
Roles	Roles of partners involved in the actions defined above.
Milestones	List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.
Costs	Costs estimated to implement actions. They should be defined considering two timelines: ▪ Time spanning between the End of the project and the Go to market. ▪ First invoice – scale up (Fixed C + Variable C).
Revenues	Projected revenues and eventual profits once the KER will be used. Revenues should be defined considering: ▪ Time spanning between the End of the project and the Go to market (no revenue). ▪ Go to market (revenues coming and increasing).
Financial coverage	Resources needed to bridge the investment needed to increase TRL and ensure the result is used.

HE – Workplan: Key documents/information related to impact 1/2

- A '**plan for D&E&C activities**' to be provided (mandatory project deliverable) **within 6 months after signature** date. It shall be periodically updated with the project's progress.
- Outline of the **strategy for IP management**, foreseen protection measures (patents, design rights, etc.), and how these **will be used to support exploitation (use)**.
- Appropriate **consortium agreement** to manage **ownership** and **access** to key knowledge (IPR, research data etc.).
- **Must indicate** the **owner**(s) of the results (results ownership list) in the **final** periodic **report.**

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HORIZON RESULTS BOOSTER

The Horizon Results Booster

An initiative of the European Commission

HORIZON RESULTS BOOSTER

An initiative of the European Commission

- Services for **FP7, H2020 and HE projects** (ongoing and closed) **free of charge,** supported by the European Commission
- Services can be requested "**à la carte**“
- **Access** from the platform https://www.horizonresultsbooster.eu

3000 services available until end of 2024

META is the main contractor for the service delivery

Horizon Results Booster - Services

HRB provides a set of **support services free of charge** to boost impact of EU projects:

Dissemination

- **PDES-A**: create a Project Group (PG) and a portfolio of results for joint dissemination.
- **PDES-B**: prepare a joint dissemination plan and video.

Exploitation

- **PDES-C**: define/improve the exploitation strategy.
- **BPD**: draft/finalize the business plan.

Go to Market

- **Pitching**
- **IPR support**
- **Innovation Management**
- **Exploitation options**
- **Business services** (commercialisation plan, business plan evaluation, start-up creation)
- **Access to non-EU funding**

Info at https://www.horizonresultsbooster.eu

Thanks for your time

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www.meta-group.com

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