



# HORIZON EUROPE

THE EU  
RESEARCH &  
INNOVATION  
PROGRAMME 2021 – 27

RESEARCH  
AND  
INNOVATION



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PROPOSAL WRITING CAMP

# Session 5\_2: Impact

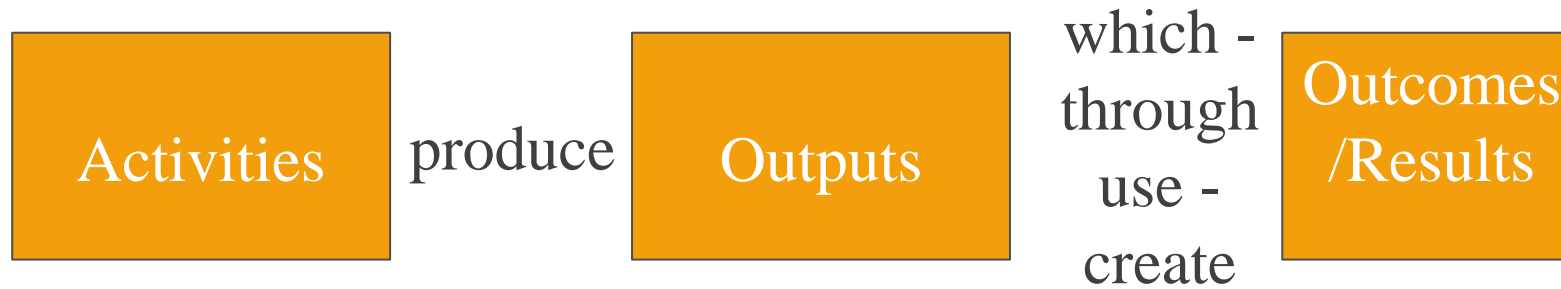


# Session overview: Impact

1. General information on impact
2. Impact in Horizon Europe
3. Group work: Define the impact of your proposal

# 1. Impact: General information

# From Activities to Impacts



OUTCOME/RESULT = what happens, if our **target group uses** our outputs!

- they become more knowledgeable (enlightenment!) or
- produce better products or
- reduce the ecological footprint

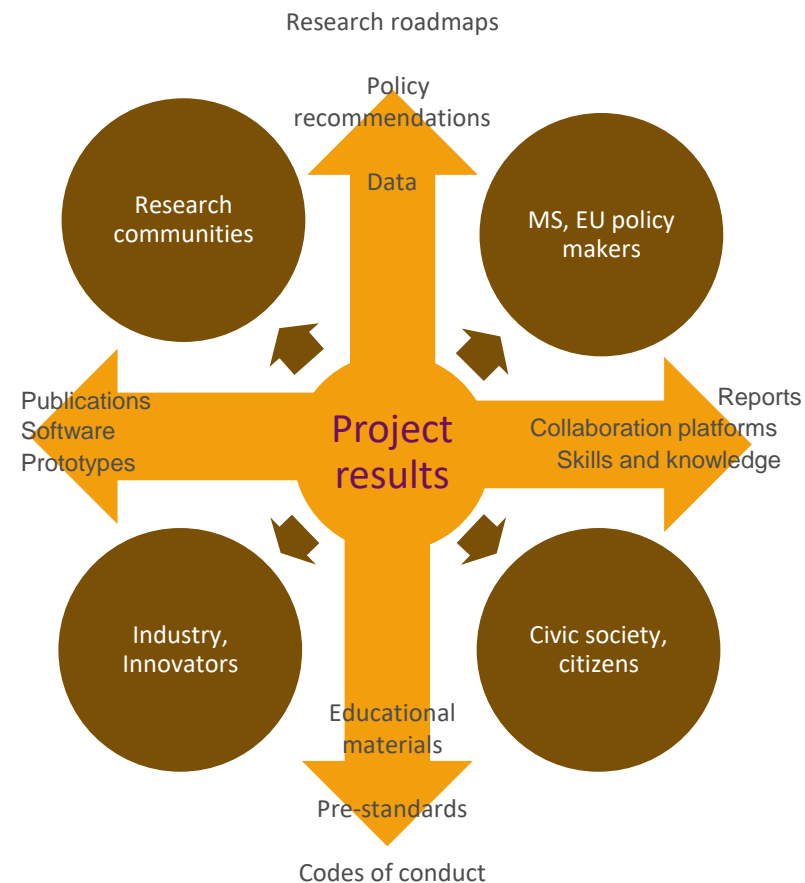
IMPACT = what happens **by use or non-use** of others than our primary target group (i.e. a 'secondary' or even 'not-intended audience')

# What are project results?

## Results

Any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected.\*

- Key exploitable results are the **outputs generated during the project which can be used and create impact**, either by the project partners or by other stakeholders
- Project results can be reusable and exploitable (e.g. inventions, prototypes, services) as such, or elements (knowledge, technology, processes, networks) that have potential to contribute for further work on research or innovation



\*[http://ec.europa.eu/research/participants/portal/desktop/en/support/reference\\_terms.html](http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html)

# Types of effects / impacts

- **Results-oriented impacts:** usually quantitative measurable results (e.g. creation of jobs, new publications, patents, reduction etc.)
- **Behavioural impacts:** changes in the (social, economic, ...) behaviour (e.g. changes concerning innovative behaviour, change of environmental behaviour, change of images & awareness etc.)

# Various categories of impacts

- **Scientific/Academic/Research:** This avenue generally focuses on the possible **publications, conferences**, or any other opportunities that can arise as a result of this project to **promote the research field**.
- **Socio-economic:** Here, researchers often touch on the **new possibilities for job creation**, important **policy outputs**, and overall **social benefits** of their project.
- **Environmental:** Such applications mostly refer to **policy papers** or **guidance documents** produced as a result of the research project.
- **Public engagement:** In this selected avenue, researchers describe **varying ways to publicly engage** through communication strategies, education, media or social media outlets, and user groups.



# Eleven dimensions of the impacts

## Science impacts:

Knowledge, Research activities, Training

## Technology impacts:

Products, Processes, Services, Know-how

## Economy impacts:

Production, Financing, Investments,  
Commercialisation, Budget

## Culture impacts:

Knowledge, Know-how, Attitudes, Values

## Society impacts:

Welfare, Discourses and actions of groups

## Policy impacts:

Policymakers, Citizens, Public programs,  
National security

## Organization impacts:

Planning, Work organization, Administration,  
Human resources

## Health impacts:

Public health, Health systems

## Environment impacts:

Management of natural resources and the  
environment, Climate and meteorology

## Symbolic impacts:

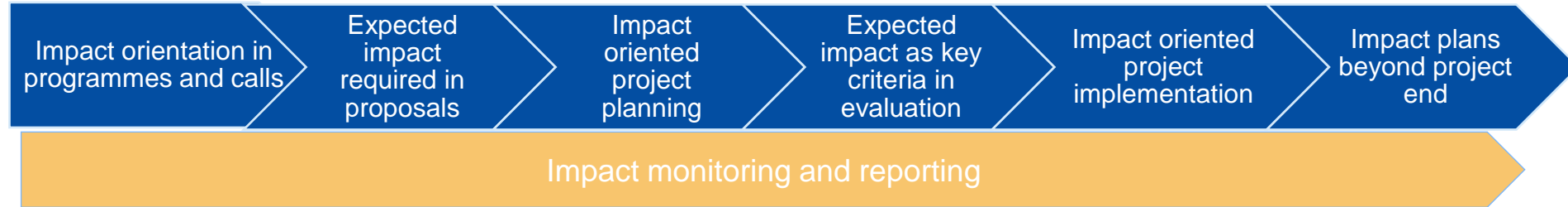
Legitimacy/credibility/visibility

## Training impacts:

Curricula, Pedagogical Tools, Qualifications,  
Graduates, Insertion into the job market,  
Fitness of training/work, career, use of acquired  
knowledge

Source: Godin and Doré, 2006

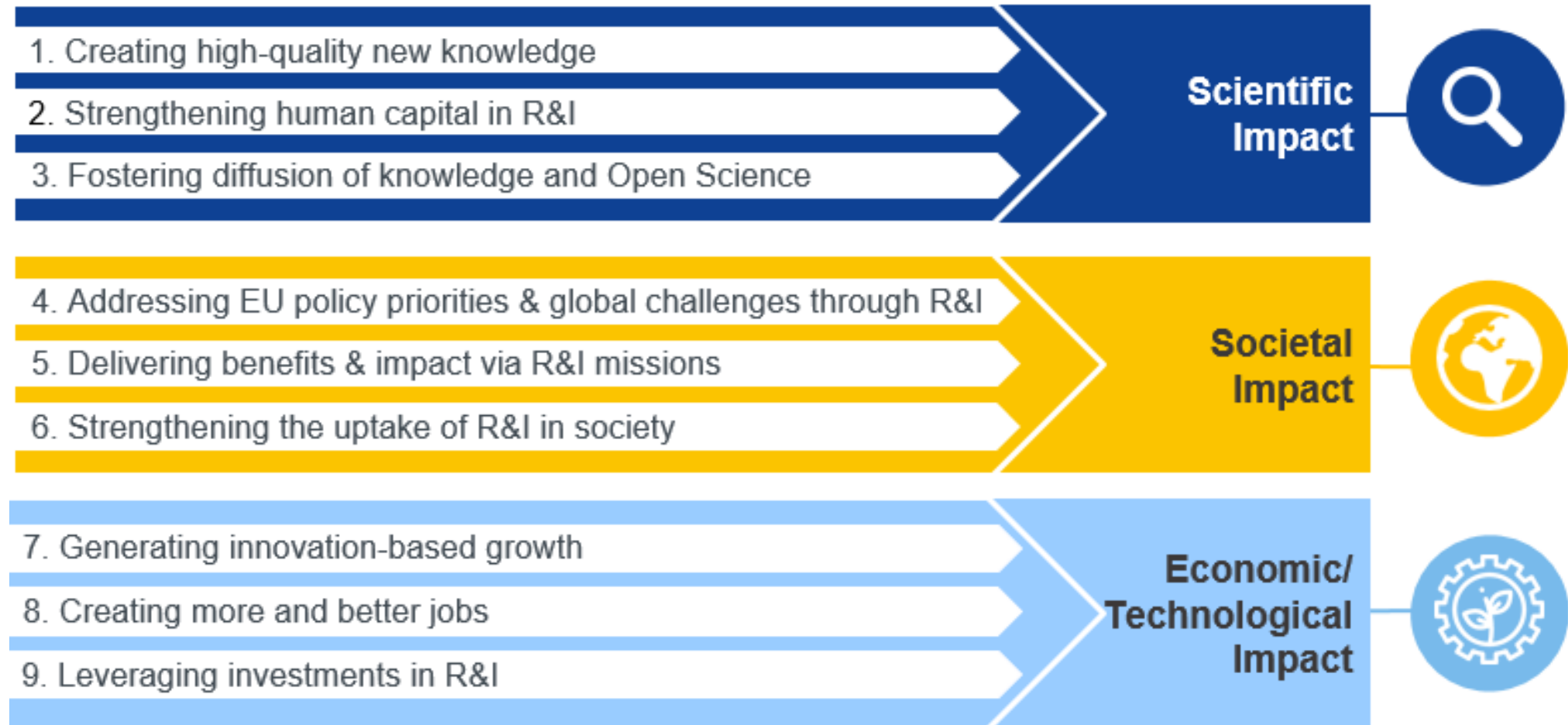
# Impact orientation in all stages



- Most programmes have an impact-oriented approach
- Horizon Europe **balances research and innovation** and aims to **drive competitiveness/growth** and to **tackle societal challenges** (e.g. through missions)
- Many programmes encourage **collaboration between different stakeholders** (researchers, industry including SMEs, public sector organisations and citizens)
- Expected impacts are crucial for successful proposals and projects
- Aspects of the project (activities, partnership, open access of results, etc.) intend to maximise potential impacts

## 2. Impact in Horizon Europe: a brief overview

# Impact pathways in HE - EXAMPLES



Source: EC

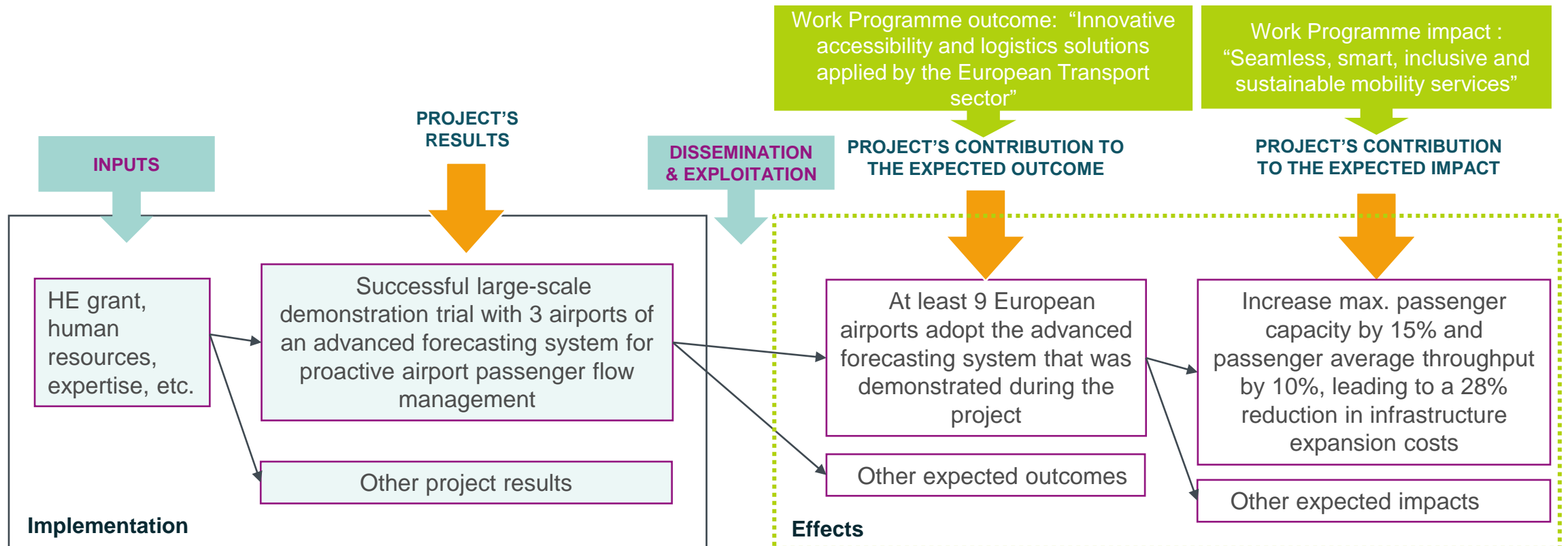
# The 5 targets for the EU in 2020: Example of framework conditions for impact

- 1. **Employment**
  - 75% of the 20-64 year-olds to be employed
- 2. **R&D**
  - 3% of the EU's GDP to be invested in R&D
- 3. **Climate change and energy sustainability**
  - greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990
  - 20% of energy from renewables
  - 20% increase in energy efficiency
- 4. **Education**
  - Reducing the rates of early school leaving below 10%
  - at least 40% of 30-34-year-olds completing third level education
- 5. **Fighting poverty and social exclusion**
  - at least 20 million fewer people in or at risk of poverty and social exclusion



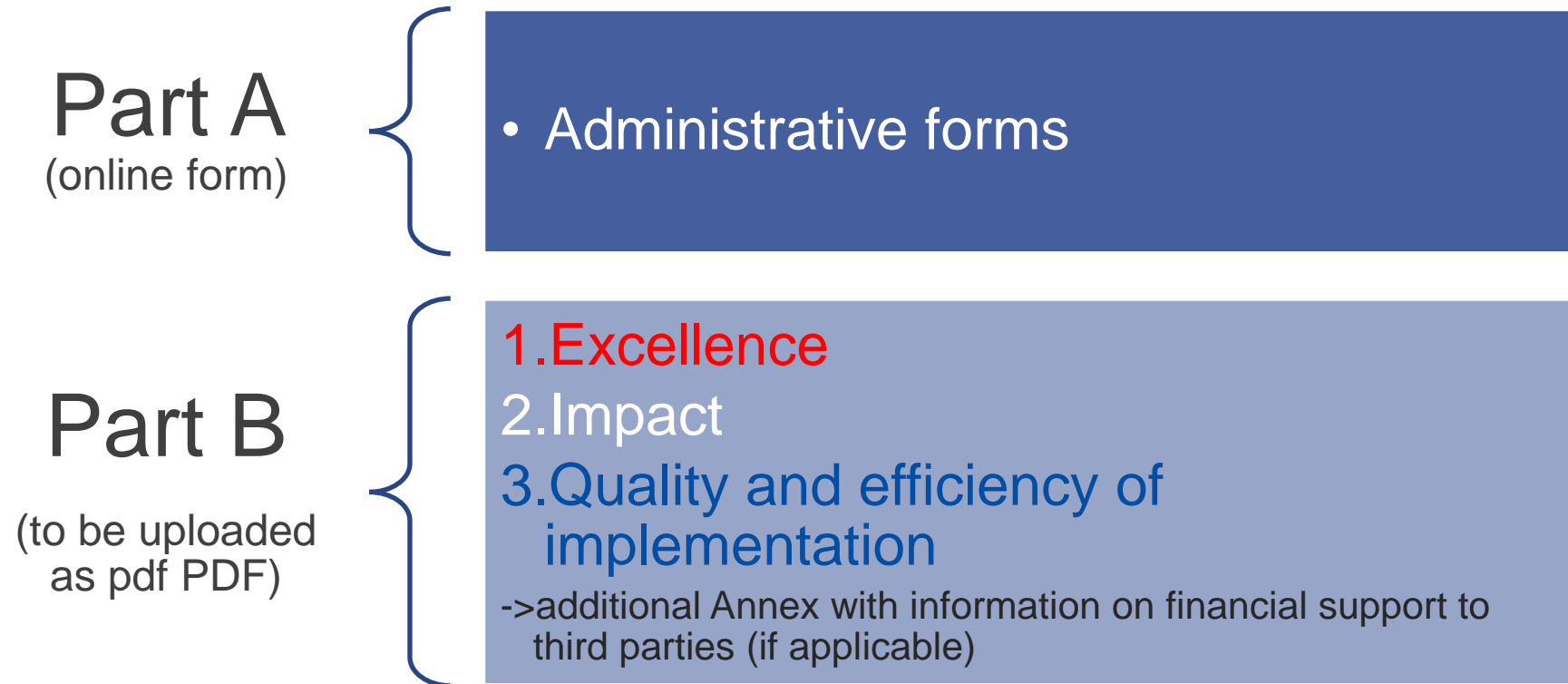
## Project's pathway towards impact

...by thinking about the specific contribution the project can make to the expected outcomes and impacts set out in the Work Programme.



Source: EC

## Example: structure of a HORIZON EUROPE - RIA (Research & Innovation Action)



## **RIA (Part B)**

### 1. Excellence

#### 1.1 Objectives and ambition

#### 1.2 Methodology

## **2. Impact**

### **2.1 Project's pathways to impact**

### **2.2 Measures to maximise impact Dissemination Exploitation and Communication**

### **2.3 Summary**

### **3. Quality and efficiency of the implementation**

#### 3.1 Work plan and Resources

#### 3.2 Capacity of participants and consortium as a whole



# What evaluators of Horizon EUROPE proposals are looking for

The evaluators pay particular attention to:

- **Expected impacts described for the topic** of the project
- **Key performance indicators (KPIs)** including target values
- **Enhancing innovation capacity** and integration of new knowledge
- **Strengthening competitiveness and growth** of industrial partners by developing and delivering innovations meeting **market needs**
- Other environmental or social impacts...

They evaluate **effectiveness of the proposed measures to exploit and disseminate the project results** (including management of IPR), to communicate the project...

# B2. IMPACT

2.1 Project's pathways to impact (4 pages)

2.2 Measures to maximise impact Dissemination  
Exploitation and Communication (5 pages)

2.3 Summary

## *Impact – aspects to be taken into account.*

- ✓ Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- ✓ Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

## B2.1 Project's pathways towards impact

Provide a narrative **explaining how the project's results are expected to make a difference in terms of impact, beyond the immediate scope and duration of the project.** The narrative should include the components below, tailored to your project.

- Describe the unique contribution your project results would make towards (1) the outcomes specified in this topic, and (2) the wider impacts, in the longer term, specified in the respective destinations in the work programme.

## B2.1 Project's pathways towards impact (2)

- Give an indication of the scale and significance of the project's contribution to the **expected outcomes and impacts**, should the project be successful. Provide quantified estimates where possible and meaningful.
- Describe **any requirements and potential barriers** - arising from factors beyond the scope and duration of the project - that may determine whether the desired outcomes and impacts are achieved. These may include, for example, other R&I work within and beyond Horizon Europe, etc. Indicate if these factors might evolve over time. **Describe any mitigating measures you propose, within or beyond your project, that could be needed should your assumptions prove to be wrong, or to address identified barriers.**

## B2.2 Measures to maximise impact - Dissemination, exploitation and communication

- Describe the planned measures to maximise the impact of your project by providing a first version of your **'plan for the dissemination and exploitation including communication activities'**.
- Describe the dissemination, exploitation and communication **measures** that are planned, and the **target group(s)** addressed (e.g. scientific community, end users, financial actors, public at large).
- Outline your strategy for the **management of intellectual property**, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.



## Dissemination, exploitation and communication

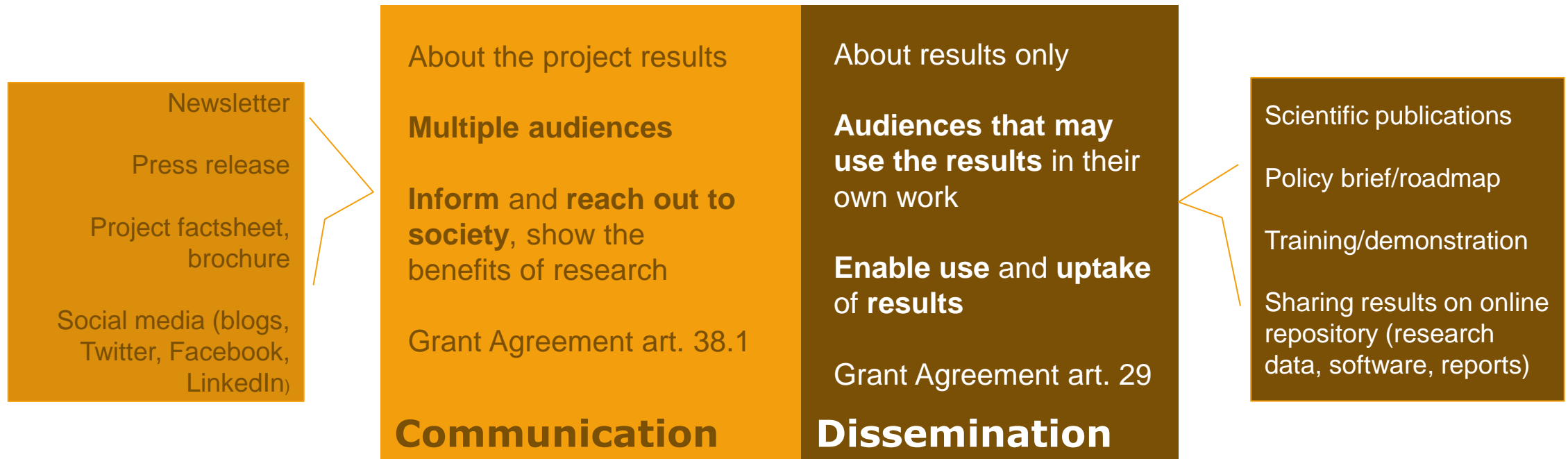
To include a draft plan in the proposal is an admissibility condition, unless the work programme topic explicitly states otherwise.

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

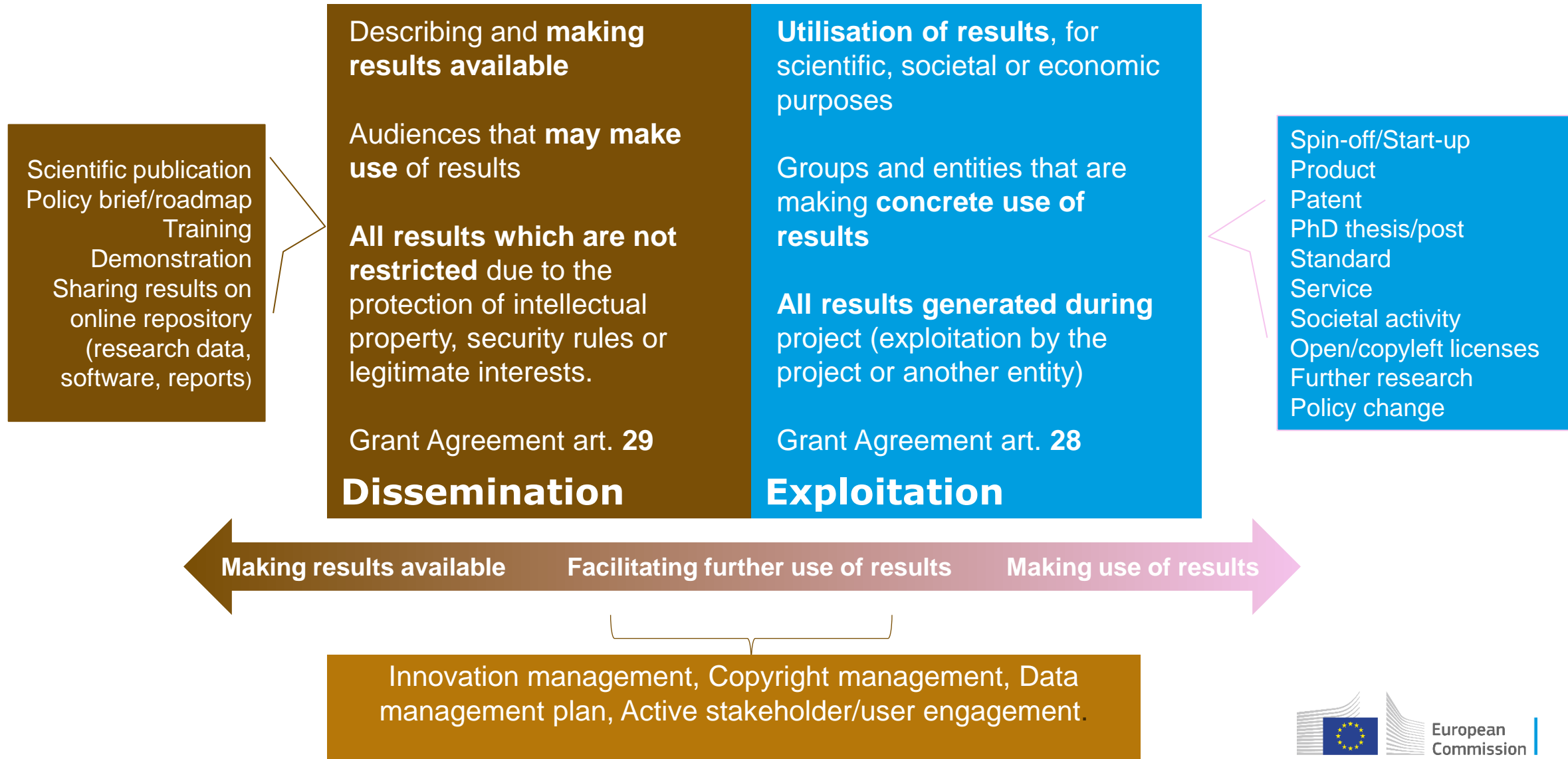
- **Planned measures** to maximise the impact of projects
- **Target groups** (e.g. scientific community, end users, financial actors, public at large) and **proposed channels** to interact
- **Communication measures** for promoting the project and its findings throughout the full lifespan of the project
- **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
  - Comprehensive and feasible strategy for the **management of the intellectual property** (the provision of a results ownership list is mandatory at the end of the project)
  - If exploitation is expected primarily in non-associated third countries, give a convincing justification that this is still in the Union's interest.

# What is the difference Communication - Dissemination?



Project website, videos, interview, articles in magazines, exhibitions/ open days, guided visits, conference, presentation and workshops.

# What is the difference Dissemination - Exploitation?





## B2.3 Summary

- Provide a summary of this section by presenting in the canvas below the key elements of your project impact pathway and of the measures to maximise its impact.

# B2.3 Summary

## KEY ELEMENT OF THE IMPACT SECTION

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
<p><i>What are the specific needs that triggered this project?</i></p> <p><b>Example 1</b> Most airports use process flow-oriented models based on static mathematical values limiting the optimal management of passenger flow and hampering the accurate use of the available resources to the actual demand of passengers.</p> <p><b>Example 2</b> Electronic components need to get smaller and lighter to match the expectations of the end-users. At the same time there is a problem of sourcing of raw materials that has an environmental impact.</p>	<p>What do you expect to generate by the end of the project?</p> <p><b>Example 1</b> <b>Successful large-scale demonstrator:</b> Trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.</p> <p><b>Algorithmic model:</b> Novel algorithmic model for proactive airport passenger flow management.</p> <p><b>Example 2</b> Publication of a <b>scientific discovery on transparent electronics.</b></p> <p><b>New product:</b> More sustainable electronic circuits.</p> <p><b>Three PhD students trained.</b></p>	<p>What dissemination, exploitation and communication measures will you apply to the results?</p> <p><b>Example 1</b> <b>Exploitation:</b> Patenting the algorithmic model.</p> <p><b>Dissemination towards the scientific community and airports:</b> Scientific publication with the results of the large-scale demonstration.</p> <p><b>Communication towards citizens:</b> An event in a shopping mall to show how the outcomes of the action are relevant to our everyday lives.</p> <p><b>Example 2</b> <b>Exploitation of the new product:</b> Patenting the new product; Licencing to major electronic companies.</p> <p><b>Dissemination towards the scientific community and industry:</b> Participating at conferences; Developing a platform of material compositions for industry; Participation at EC project portfolios to disseminate the results as part of a group and maximise the visibility vis-à-vis companies.</p>

# B2.3 Summary

TARGET GROUPS	OUTCOMES	IMPACTS
<p><i>Who will use or further up-take the results of the project? Who will benefit from the results of the project?</i></p> <p><b>Example 1</b> <b>9 European airports:</b> Schiphol, Brussels airport, etc.</p> <p><b>The European Union aviation safety agency.</b></p> <p><b>Air passengers (indirect).</b></p> <p><b>Example 2</b> <b>End-users:</b> consumers of electronic devices.</p> <p><b>Major electronic companies:</b> Samsung, Apple, etc.</p> <p><b>Scientific community</b> (field of transparent electronics).</p>	<p><i>What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?</i></p> <p><b>Example 1</b> <b>Up-take by airports:</b> 9 European airports adopt the advanced forecasting system demonstrated during the project.</p> <p><b>Example 2</b> <b>High use of the scientific discovery published</b> (measured with the relative rate of citation index of project publications).</p> <p><b>A major electronic company</b> (Samsung or Apple) <b>exploits/uses the new product</b> in their manufacturing.</p>	<p><i>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?</i></p> <p><b>Example 1</b> <b>Scientific:</b> New breakthrough scientific discovery on passenger forecast modelling.</p> <p><b>Economic:</b> Increased airport efficiency Size: 15% increase of maximum passenger capacity in European airports, leading to a 28% reduction in infrastructure expansion costs.</p> <p><b>Example 2</b> <b>Scientific:</b> New breakthrough scientific discovery on transparent electronics.</p> <p><b>Economic/Technological:</b> A new market for touch enabled electronic devices.</p> <p><b>Societal:</b> Lower climate impact of electronics manufacturing (including through material sourcing and waste management).</p>

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# Group Work & Homework Impact



# GROUP WORK & Homework

Follow the instructions from the application form

**Group Work:** Describe how your project will contribute to...

- Each of the **impacts** mentioned in the work programme, under the relevant topic; impacts that would enhance innovation capacity; create new market opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits for society
- Describe any **barriers/obstacles**, and any framework conditions (such as regulation, standards, public acceptance, workforce considerations, financing of follow-up steps, cooperation of other links in the value chain), that may determine whether and to what extent the expected impacts will be achieved.

**Homework:** Continue your work on impact section...

- Refine impact pathways
- Think of and outline a few appropriate communication/dissemination/exploitation measures
- Prepare the summary tables 2.3 – see templates at next slides

# Exercise – Preparation of the summary 2.3

Specific needs	Expected results	D&E&C measures
What are the specific needs that triggered this project?	What do you expect to generate by the end of the project?	What dissemination, exploitation and communication measures will you apply to the results?

# Exercise – Preparation of the summary 2.3

Target groups	OUTCOMES /RESULTS	D&E&C measures
<p>Who will use or further up-take the results of the project? Who will benefit from the results of the project?</p>	<p>What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?</p>	<p>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?</p>

# Thank you!

**#HorizonEU**

<http://ec.europa.eu/horizon-europe>