

# *Horizon Europe*

## *Proposal Writing Training Impact Exercise*

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Swiss guide to European  
research and innovation





# Agenda

- Introduction to the exercise: 30 min
- Exercise (groups & breakout rooms): 45 min
- Sharing of results & wrap-up: 30 min

# Standard Application Form



## 2.1 Project's pathways towards impact (*"Narrative"*)

- a. Contributions to Outcomes and Impacts, Target Groups, Types of Impacts/Outcomes, Do-No-Significant-Harm
- b. Scale & Significance
- c. Requirements, Potential Barriers & Mitigations

## 2.2 Measures to maximize impact - Dissemination, exploitation and communication

## 2.3 Summary of impact pathway(s) (*"Impact Canvas"*) and measures to maximize impact

- Specific needs
- Expected results
- D&E&C measures
- Target groups
- Outcomes
- Impacts

Impact Canvas?

Expected Outcome?  
Expected Impact?

Key Impact Pathway?



# Exercise

- Carefully read the provided Topic and the Destination descriptions
- Think of an innovative technology/device/system that could help address the challenges (crazy thinking allowed, but some examples are provided in case of lack of creativity)
- Fill in the Impact Diagram and identify your Key Impact Pathway(s)
- For one Key Impact Pathway, fill in an Impact Canvas Table
- *(narrative description – will not be covered)*

## Exercise – Part 1 (~15 min)

- Carefully read the provided Topic and the Destination descriptions
- Think of an innovative technology/device/system that could help address the challenges (crazy thinking allowed, but some examples are provided in case of lack of creativity)
- Fill in the Impact Diagram and identify your Key Impact Pathway(s)
- For one Key Impact Pathway, fill in an Impact Canvas Table

# HORIZON-CL4-2021-TWIN-TRANSITION-01-12

Breakthrough technologies supporting technological sovereignty in construction

Type: RIA

Budget Overall: 24 M€

Budget/project (M€): 8-10 M€

Number of funded projects: 3

TRL: 4→6

Expected Outcomes:

- Integrate breakthrough technologies derived from other industries (additive manufacturing; human robot collaboration; autonomous vehicles in construction; autonomous maintenance, diagnostics and monitoring)
- Demonstrate increased use of resources, reduced waste and CO2 emissions
- Demonstrate safety
- Demonstrate a reduction of dependency on key technologies
- Increase wellbeing on workforce

Scope:

- Develop, test, promote the required technologies, devices, systems
- Demonstrate in at least 4 diverse construction sites
- Develop solutions for monitoring the wellbeing of the workforce and prevention of accidents
- Evaluate through surveys
- Identify additional breakthrough technologies bearing an emerging serious risk of import dependency
- Develop learning resources and new standards

**DEADLINE: 23rd September 2021**

# Breakthrough technologies?



- Additive manufacturing  
→ 3D printing of parts of structures
- Human robot collaboration  
→ On-site moving of material done by robots
- Autonomous vehicles in construction  
→ Automated road repairing/building truck
- Autonomous maintenance, diagnostics and monitoring  
→ Drones
- Crazy ideas allowed!
  - The technology itself is not important for this exercise!
  - Think backwards: what “invention” could positively impact the construction sector from an environmental / health / wellbeing / productivity / supply chain perspective?



## Exercise – Part 2 (~15 min)

- Carefully read the provided Topic and the Destination descriptions
- Think of an innovative technology/device/system that could help address the challenges (crazy thinking allowed, but some examples are provided in case of lack of creativity)
- **Fill in the Impact Diagram and identify your Key Impact Pathway(s)**
- For one Key Impact Pathway, fill in an Impact Canvas Table

# Results, Outcomes, Impacts and Pathways

<b>Results</b>	<b>What is generated during the project implementation.</b> This may include, for example, know-how, innovative solutions, algorithms, proof of feasibility, new business models, policy recommendations, guidelines, prototypes, demonstrators, databases and datasets, trained researchers, new infrastructures, networks, etc. Most project results (inventions, scientific works, etc.) are 'Intellectual Property', which may, if appropriate, be protected by formal 'Intellectual Property Rights'.
<b>Outcomes</b>	<b>The expected effects, over the medium term, of projects supported under a given topic.</b> The results of a project should contribute to these outcomes, fostered in particular by the dissemination and exploitation measures. This may include the 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.
<b>Impacts</b>	<b>Wider long term effects on society (including the environment), the economy and science, enabled by the outcomes of R&amp;I investments (long term).</b> It refers to the specific contribution of the project to the work programme expected impacts described in the destination. Impacts generally occur some time after the end of the project.
<b>Pathway to impact</b>	<b>Logical steps towards the achievement of the expected impacts of the project over time, in particular beyond the duration of a project.</b> 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.

# Types of Longer-Term Impacts





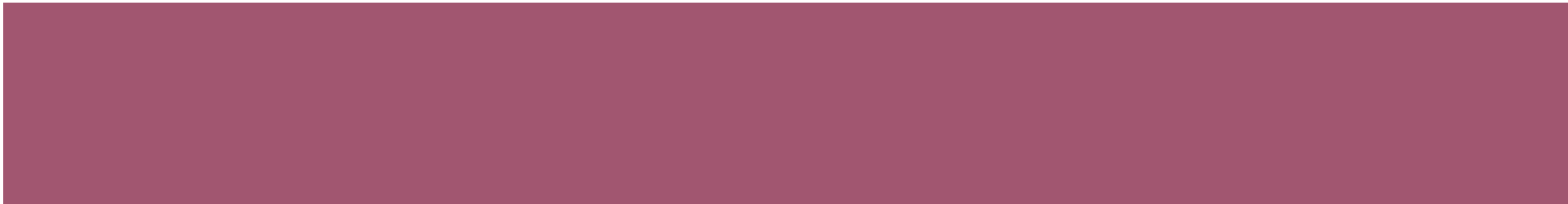
PROJECT RESULTS



EXPECTED OUTCOMES



EXPECTED IMPACTS



## PROJECT RESULTS

From your specific project description

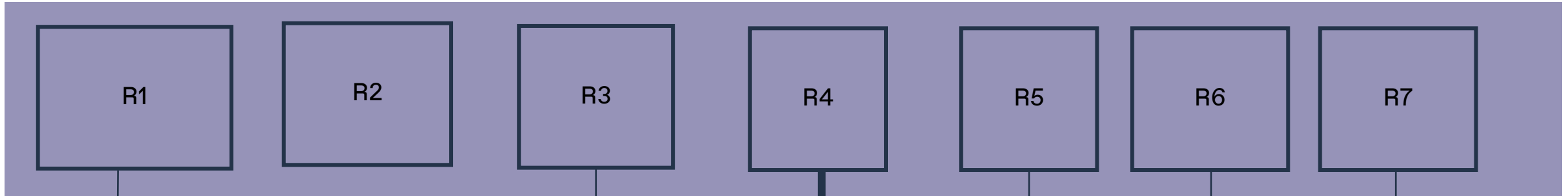
## EXPECTED OUTCOMES

From the Topic Text  
Remember to quantify (KPI)

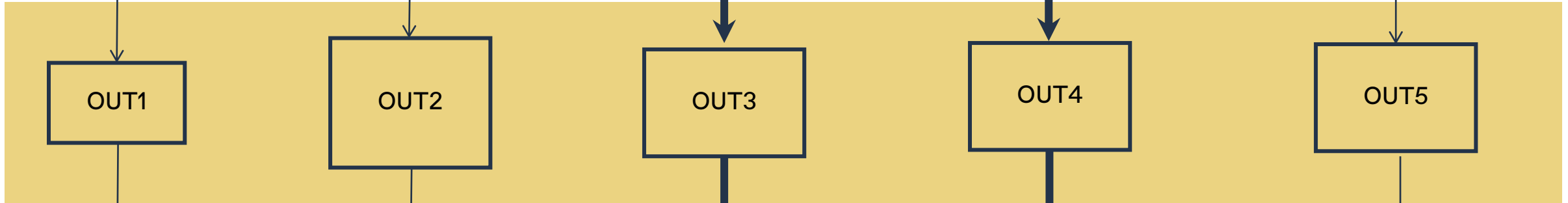
## EXPECTED IMPACTS

From the Destination Text  
Remember to quantify (KPI)

PROJECT RESULTS



EXPECTED OUTCOMES



EXPECTED IMPACTS



## Exercise – Part 3 (~15 min)

- Carefully read the provided Topic and the Destination descriptions
- Think of an innovative technology/device/system that could help address the challenges (crazy thinking allowed, but some examples are provided in case of lack of creativity)
- Fill in the Impact Diagram and identify your Key Impact Pathway(s)
- **For one Key Impact Pathway, fill in an Impact Canvas Table**

## SPECIFIC NEEDS

What are the specific needs that triggered this project?

XXXX

yyy

zzz

## EXPECTED RESULTS

What do you expect to generate by the end of the project?

xxx

yyy

zzz

## D & E & C MEASURES

What dissemination, exploitation and communication measures will you apply to the results?

E

xxx

E

yyy

D

xxx

D

yyy

C

xxx

C

yyy



## TARGET GROUPS

Who will use or further up-take the results of the project? Who will benefit from the results of the project?

yyy

xxx

zzz

## OUTCOMES

What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?

xxx

yyy

## IMPACTS

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?

Societal:

xxx

Scientific:

xxx

Economic:

xxx

# Communication - Dissemination - Exploitation



Informing about project	Informing about results	Making results available for use	Facilitating further use of results	Making use of results
Newsletter	Project website	Scientific publication	Innovation management	Spin-off/Start-up
Press release		Policy brief/ roadmap	Copyright management	Standards
Project factsheet, brochures	Training, workshops, demonstrators			Products
Social media (blogs, LinkedIn, ...)	Videos, interviews	Sharing results on online repository (research data, software, reports)	Data Management Plan	Services
	Articles in magazines		Patents	
	Exhibitions/ open days/ guided visits		PhD thesis	
			Further research	
	Conference presentations		Open licenses	
			Active stakeholder engagement	Societal activity
				Policy change

# Instructions

- Save the exercise material on your laptop/PC (onsite: paper version will be given)
- Join a team – for online participants: you will be allocated automatically to a room
- Select a moderator/coordinator in your team. She/he will collect the team input on the distributed templates
- Work through the exercise
  - ~15 min: read the topic and destination text + think of your own technology and project
  - ~15 min: fill in the Key Impact Pathway diagram
  - ~15 min: fill in the Impact Canvas table
- We will reconvene at 14:15: be prepared to share your findings!

*Enjoy the exercise!*  
*Back to plenary at 14:15*

## PROJECT RESULTS

Prototype  
exoskeleton for  
lifting heavy  
weights

Test sites 1-x

Productivity /  
efficiency  
report

Safety and  
wellbeing  
monitoring  
report

Survey  
results

Sustainability  
report

Supply chain  
report

## EXPECTED OUTCOMES

Integrate  
technology

Demonstrate  
efficiency,  
waste and  
CO2

Demonstrate  
safety

Increase  
workforce  
wellbeing

Demonstrate  
reduction of  
dependency

## EXPECTED IMPACTS

Digital  
transition

Green  
transition

Competitiveness  
and productivity

Safer and  
more attractive  
construction  
sector

Resilient and  
flexible  
industry

## SPECIFIC NEEDS

What are the specific needs that triggered this project?

High accident rate in construction industry

Low workforce wellbeing

Construction jobs not attractive for younger generations

## EXPECTED RESULTS

What do you expect to generate by the end of the project?

Prototype exoskeleton

User surveys

Construction test sites 1-4

Validation reports

## D & E & C MEASURES

What dissemination, exploitation and communication measures will you apply to the results?

E

Patenting / licensing of technology

E

Standards

D

Construction fairs / robotics fairs

D

Job fairs

D

Publications

C

Use of technology on publicly visible construction sites

## TARGET GROUPS

Who will use or further up-take the results of the project? Who will benefit from the results of the project?

Construction workers, unions

Construction companies

Manufacturers of construction equipment

## OUTCOMES

What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?

Quantified improvement in safety records

Quantified increase in wellbeing of workforce

## IMPACTS

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?

### Societal:

Safer and more attractive construction sector (quantification needed here as well)

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