Yellow Research

CERATIUM
HELPING SCIENCE HAPPEN

AESIS
NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

#EUF22

Horizon Europe Grant Writing

The IMPACT section

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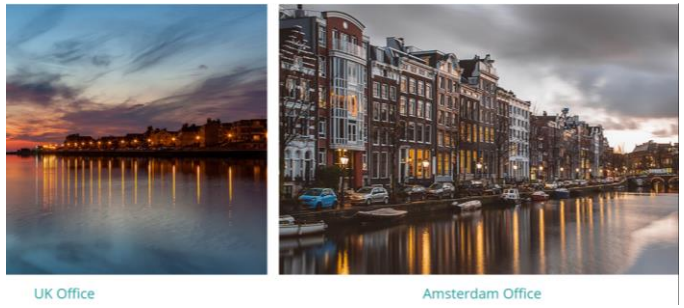
Topics

- **Who are Ceratium?**
- **The value and importance of societal Impact in Horizon Europe proposals (RIA/IA)**
  - **Programme Impact – Understanding Horizon Europe drivers.**
  - **Understanding EU language (“eurospeak”)**
- **Broadening the scope of engagement beyond academia**
- **Good practice and pitfalls**
- **Tips and tricks**

Ceratium Ltd and BV

- **€~120M EC/UK grants delivered**
  - Universities
  - Corporates
  - SMEs
  - Research organisations
  - Hospitals
  - NGOs
- **Team of 3+**
- **RH has strong relationship with associates**
  - **Lotte Jaspers** @ Yellow Research
- **RH worked on FP projects since ‘96**
- **Director of FP6/7 Contact Point**



UK Office

Amsterdam Office

What we do?

Innovation & Research Strategy

Funding

Project Management

Communication

Exploitation & Impact

Training

HE-RIA
proposal writing

WRITE TO WIN!

The Policy Framework: What Change does Europe Need

SUSTAINABLE DEVELOPMENT GOALS

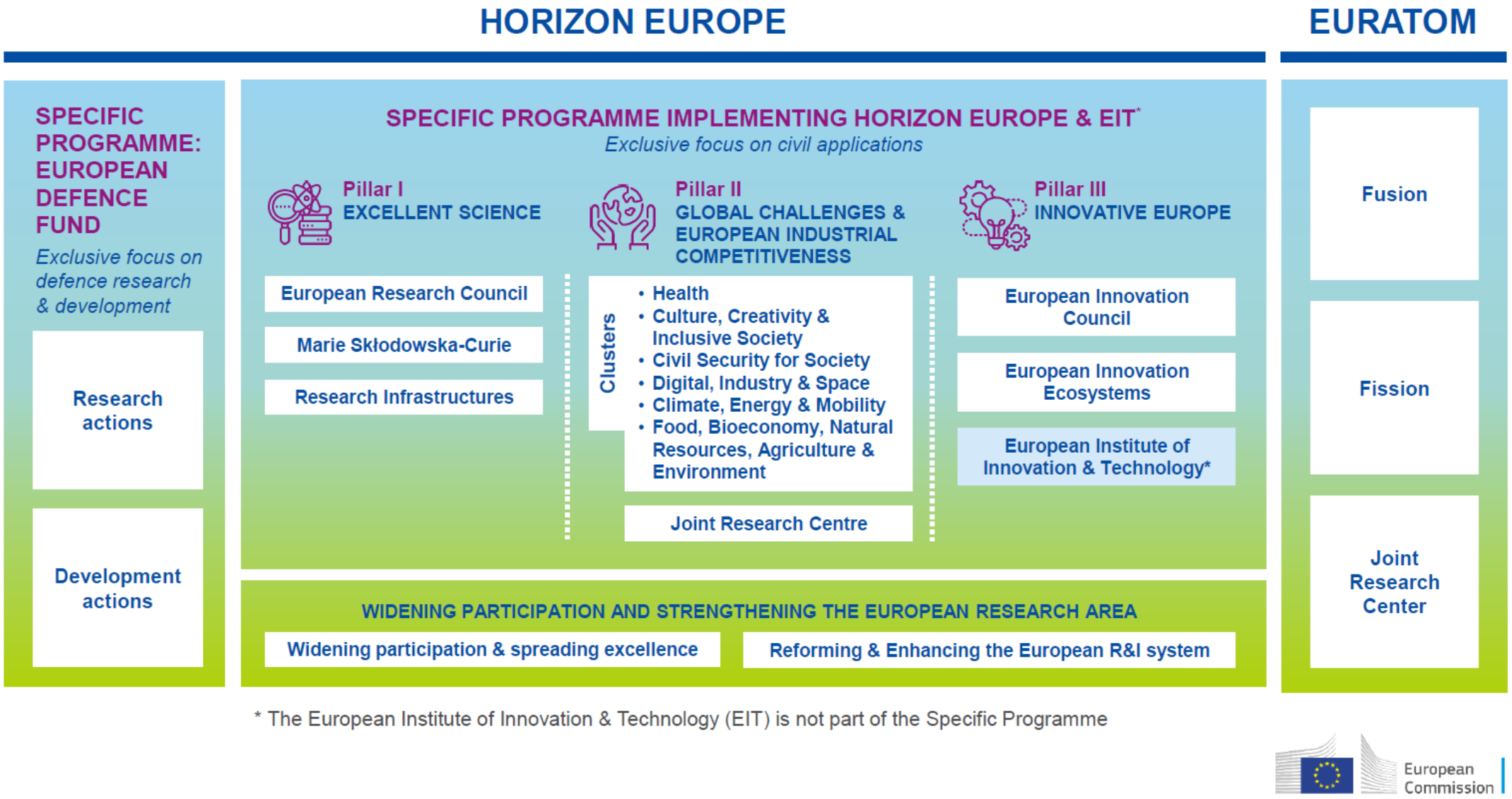
#EUGreenDeal

#EUDigitisation

Horizon Europe €95.5 Billion

- ✓ Strengthens the impact of research and innovation
- ✓ **@High level HE is about addressing Global Challenges**
- Climate Change
- UN Sustainable Development Goals (SDGs)
- Improve EUs competitiveness and economic growth
  - Post Covid-19 lockdown
  - Jobs & Industrial success
  - Health care
- Developing, supporting and implementing EU policies
- Strengthened European Research Area
  - creation and better diffusion of excellent knowledge and technologies
- Facilitates collaboration

~€95.5 Billion for Science and Innovation



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

European Commission

European Research Area: key to Recovery Plans

- European resilience
  - greener / digitally empowered / collaborative
  - COVID-19 response
- Key players
- EC – Member states – R&I stakeholders
- Novel joint efforts
  - citizens and science
  - communicate better
- Research and Innovation Ecosystem
  - Effectiveness, consistency and efficiency
- Multiple scales
  - REGIONAL with policy support
  - Open to the world

…Reinvigoration

IMPACT – EC definition

- Wider long-term effects on society (including the environment), the economy and science, enabled by the outcomes of R&I investments (long term).
- IMPACT 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.

- EC Example: The deployment of an advanced forecasting system enables each airport to increase maximum passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs.

IMPACT and the RESEARCHER

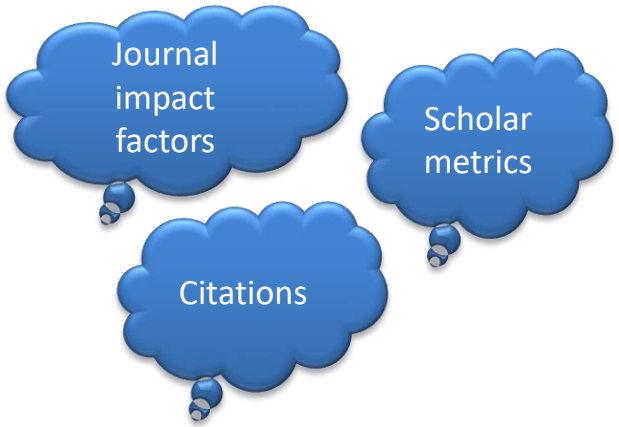
SOCIETAL **IMPACT** INCREASINGLY CRITICAL

How research results are used to create change

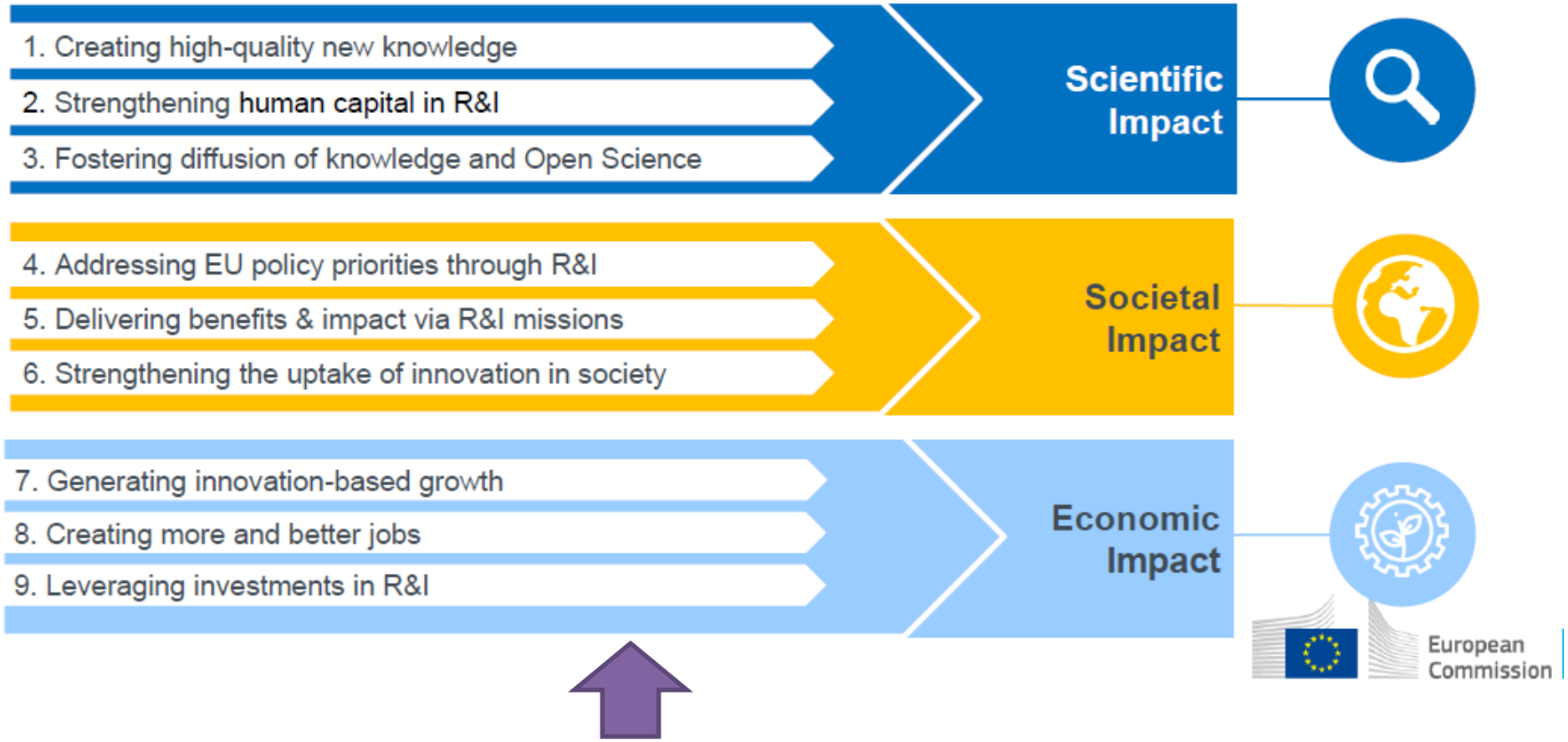
Horizon Europe EC looks to increase indicators

- Increasing demands to demonstrate IMPACT
  - Politicians
  - Funders and policy makers
  - Societal actors
  - **Citizens**

- Academic priority
  - Peer review papers
  - Conferences
  - Change is slow!



3 Key Impact Pathways = Monitoring Approach



KEY IMPACT PATHWAY INDICATORS

Short (1+ years) → Medium (3+ years) → Long (5+ years)

Scientific impact pathway indicators

Towards scientific impact	Short term	Medium term	Long term
Creating high-quality new knowledge	Publications - Number of FP peer reviewed scientific publications	Citations - Field-Weighted Citation Index of FP peer reviewed publications	World-class science - Number and share of peer reviewed publications from FP projects that are core contribution to scientific fields
Strengthening human capital in R&I	Skills - Number of researchers having benefitted from upskilling activities in FP projects (through training, mentoring/coaching, mobility and access to R&I infrastructures)	Careers - Number and share of upskilled FP researchers with more influence in their R&I field	Working conditions - Number and share of upskilled FP researchers with improved working conditions
Fostering diffusion of knowledge and Open Science	Shared knowledge - Share of FP research outputs (open data/ publication/ software etc.) shared through open knowledge infrastructures	Knowledge diffusion - Share of open access FP research outputs actively used/cited	New collaborations - Share of FP beneficiaries having developed new transdisciplinary/ trans-sectoral collaborations with users of their open FP R&I outputs

Societal impact pathway indicators

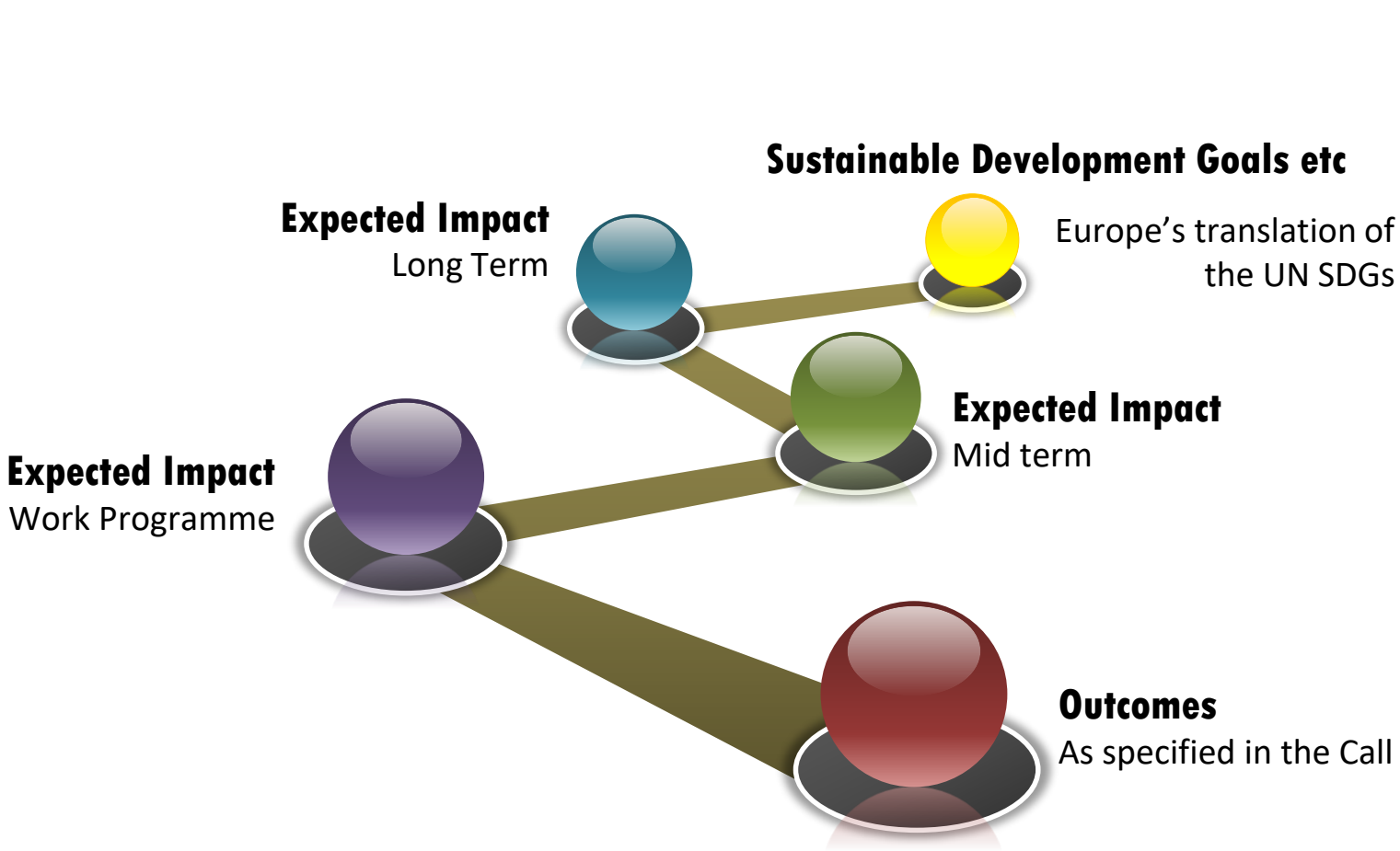
Towards societal impact	Short term	Medium term	Long term
Addressing EU policy priorities through R&I	Outputs - Number and share of outputs aimed at addressing specific EU policy priorities	Solutions - Number and share of innovations and scientific results addressing specific EU policy priorities	Benefits - Aggregated estimated effects from use of FP-funded results, on tackling specific EU policy priorities, including contribution to the policy and law-making cycle
Delivering benefits and impact through R&I missions	R&I mission outputs - Outputs in specific R&I missions	R&I mission results - Results in specific R&I missions	R&I mission targets met - Targets achieved in specific R&I missions
Strengthening the uptake of innovation in society	Co-creation - Number and share of FP projects where EU citizens and end-users contribute to the co-creation of R&I content	Engagement - Number and share of FP beneficiary entities with citizen and end-users engagement mechanisms after FP project	Societal R&I uptake - Uptake and outreach of FP co-created scientific results and innovative solutions

Societal impact pathway indicators

Towards economic / innovation impact	Short term	Medium term	Long term
Generating innovation-based growth	Innovative outputs - Number of innovative products, processes or methods from FP (by type of innovation) & Intellectual Property Rights (IPR) applications	Innovations - Number of innovations from FP projects (by type of innovation) including from awarded IPRs	Economic growth - Creation, growth & market shares of companies having developed FP innovations
Creating more and better jobs	Supported employment - Number of FTE jobs created, and jobs maintained in beneficiary entities for the FP project (by type of job)	Sustained employment - Increase of FTE jobs in beneficiary entities following FP project (by type of job)	Total employment Number of direct & indirect jobs created or maintained due to diffusion of FP Results (by type of job)
Leveraging investments in R&I	Co-investment - Amount of public & private investment mobilised with the initial FP investment	Scaling-up - Amount of public & private investment mobilised to exploit or scale-up FP results	Contribution to '3% target' - EU progress towards 3% GDP target due to FP

Credibility of the Pathway

the likely scale and significance of the contributions due to the project



From Lotte Jaspers Yellow Research

The Proposal

Overview - Standard Application Form (HE RIA, IA)

- Application Part A online
  - General Information – Title, Abstract, Key words etc
  - Participants
  - Budget
  - Ethics and security
  - Topic specific questions

Participant Info template (includes ethics)

Budget template (includes descriptions of costs)

- Technical Description (Part B)
  - Excellence
  - **Impact**
  - Implementation
  - Additional sections
  - Annexes: Clinical Trials / Financial Support to Third Parties / Security /Ethics

Proposal Outline (HE)

45 pages – evaluated section

PART 1

B1

Excellence

1.1 Objectives and Ambition [4 pages?]

1.2 Methodology [14 pages?]

Note: Includes Open Science Practices and Research data management and management of other research outputs

B2

Impact

2.1 Project's Pathways towards impact [4 pages?]

2.1a How project results contribute to WP outcomes and wider impact destination

2.1b Scale and significance

2.1c Describe any requirements and potential barriers

2.2 Measures to maximise impact - Dissemination, exploitation and communication [5 pages inlcuding 2.3?]

2.3 Summary – use Impact Canvas

B3

Quality and efficiency of the implementation

3.1 Workplan and resources [incl. workpackages, deliverables, Gantt chart etc] [14 pages, 19 for lump sum = 50 pages *]

3.2 Capacity of participants and consortium as a whole [3pages]

***Proposal Extension for some projects**

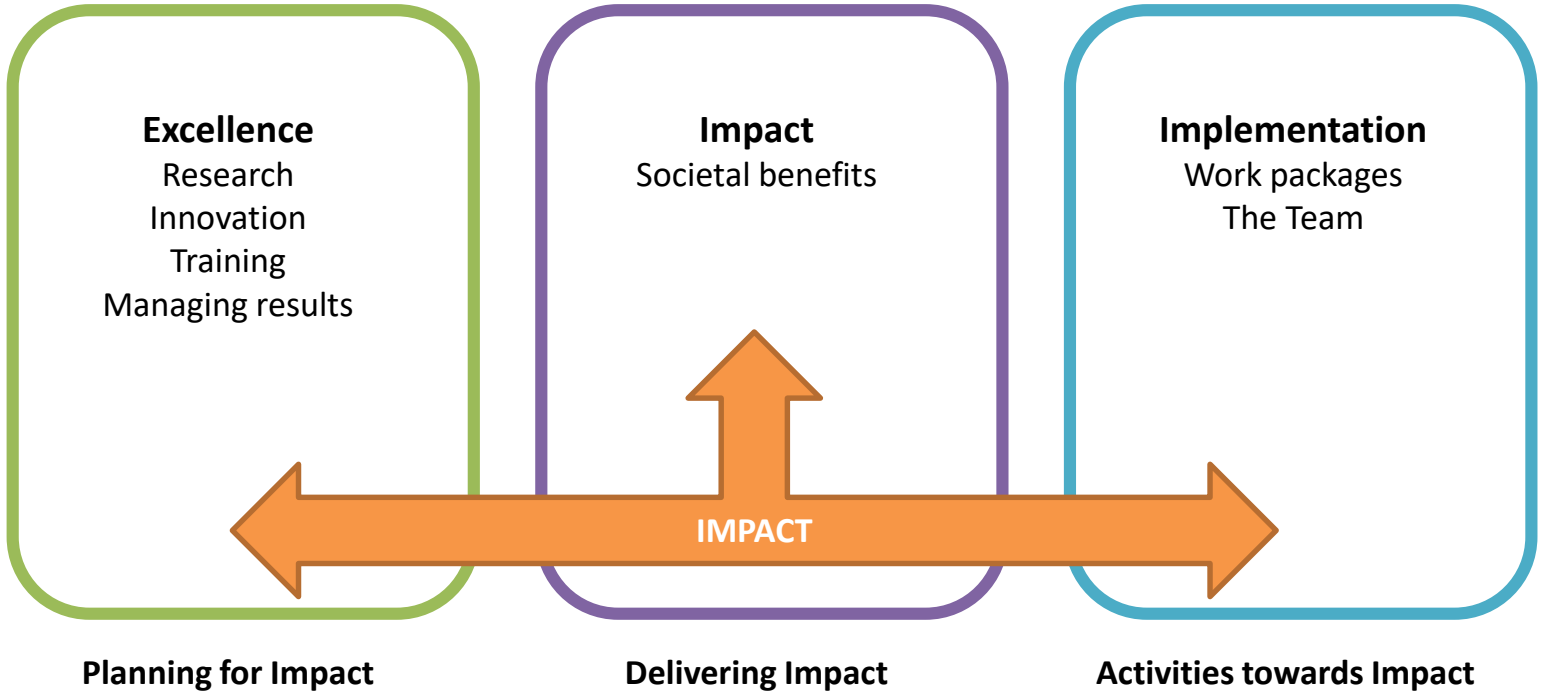
Evaluation: Impact is everywhere

EXCELLENCE	IMPACT	IMPLEMENTATION
• **Clarity and pertinence of the project's objectives, and the extent to which the proposed work is ambitious and goes beyond the state of the art** • **Soundness of the proposed methodology,** including the underlying concepts, models, assumptions, inter-disciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices, including sharing and management of research outputs and engagement of citizens, civil society and end-users where appropriate.	• **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 from 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.	• Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall. • Capacity and role of each participant, and the extent to which the consortium as a whole brings together the necessary expertise.

- *Full applications: scored out of 5 / threshold for each criteria will be 3 / overall threshold = 10.*
- *In Innovation actions 'Impact' will be given a weight of 1.5.*
- *2-Stage calls: only criteria in **bold** evaluated / threshold for each criteria will be 4 / overall threshold = ~8-8.5 (~30% chance at Stage 2) – situation could change*

Writing European Projects

- Research and innovation Actions
- Innovation Actions



Team Approach

Coordinator & Core Team

Theme Leaders

WP Leaders

Consortium Partners

Strategy Co-Design

Co-Write & Refine Proposal for Evaluators

Collate and Assess Partner Info

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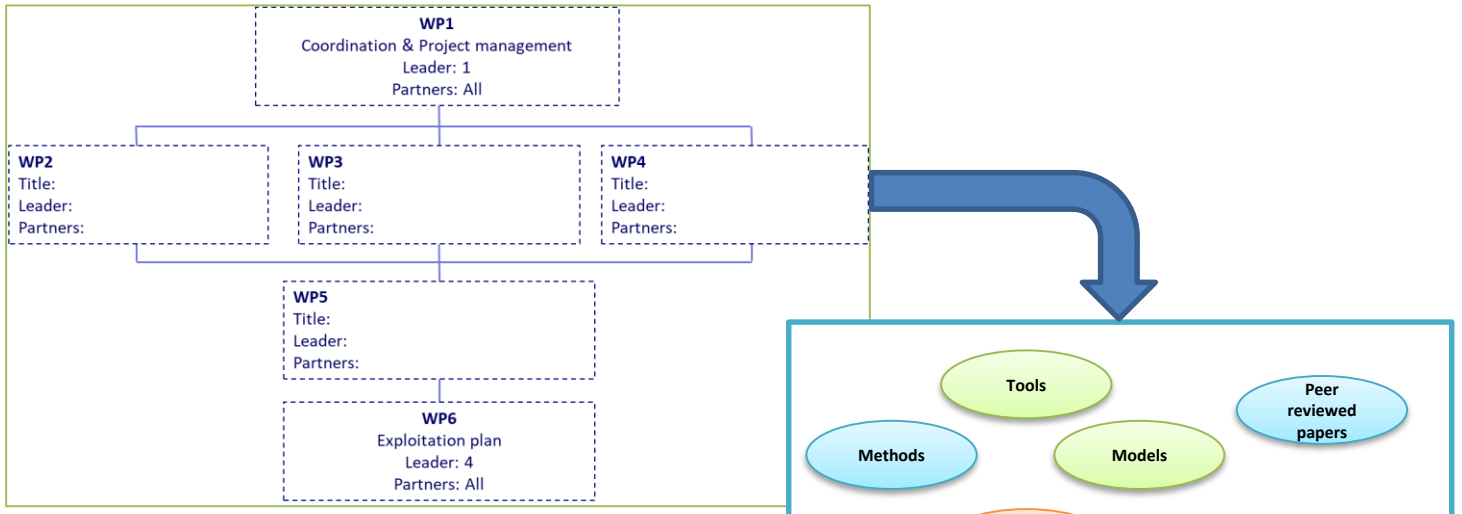
Interpreting the call text and the relevant EU landscape:

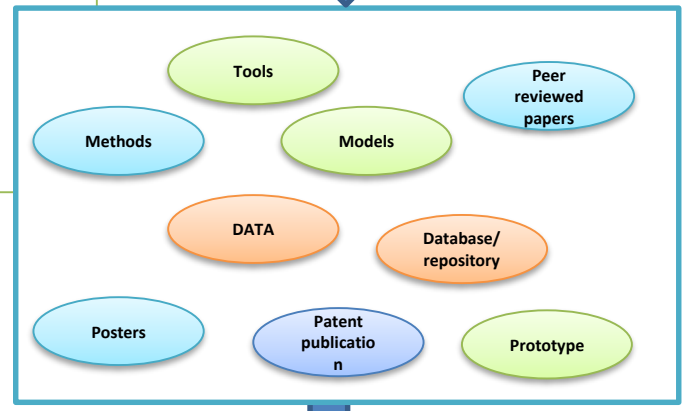
Analyzing the Call Architecture – reverse design

Cluster 1 HEALTH Work Programme details:

- Destination 1 – Staying healthy in a rapidly changing society
- Destination 2. Living and working in a health-promoting environment
- Destination 3. Tackling diseases and reducing disease burden
- Destination 4. Ensuring access to innovative, sustainable and high-quality health care
- Destination 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
- Destination 6. Maintaining an innovative, sustainable and globally competitive health industry

Traditional Project Design



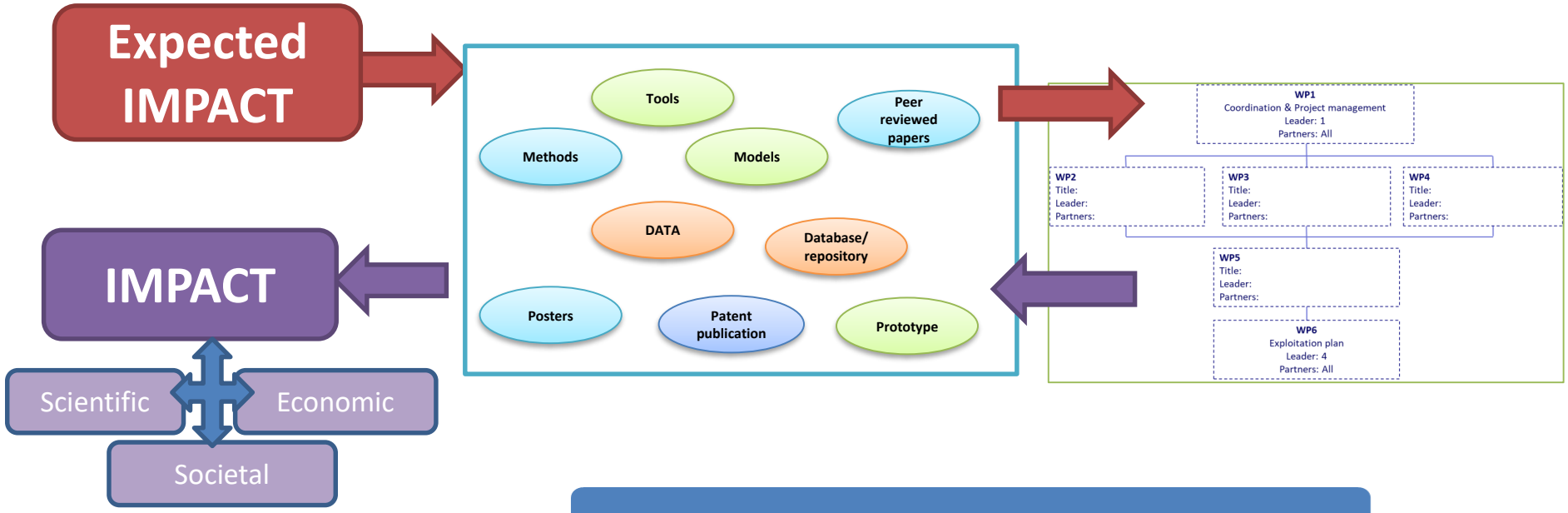


IMPACT

- Dissemination
- Exploitation
- Communication
- Business Plan (?)
- *What comes after the project*

Reverse-Engineer Projects

……You need a plan to reach the destination (impact)



ANALYZE THE CALL OUTCOME

ANALYZE THE CALL SCOPE

HOW DOES THIS CONTRIBUTE TO DESTINATION EXPECTED IMPACT

Workprogramme – # 1 Cluster Health

- **Destination 1 – Staying healthy in a rapidly changing society**
- Research and innovation under this Destination will provide new evidences, methodologies and tools for understanding the transition from health to disease, preventing diseases and promoting health.
- …….
- …….

Destination

<u>Expected Impacts</u>

- Promotion of healthier lifestyles, behaviours and environments to enable citizens stay healthy throughout the life; Innovative evidence-based services, policies and guidelines for health promotion and disease prevention;
- …….

Call - HORIZON-HLTH-STAYHLTH-2021-01-01: Prevention of obesity through the life course

<u>Expected Outcome</u>

- Improved knowledge of basic biological pathways (genetic and epigenetic
- **……..**
- **……..**

Scope

Explanation focus + specification as to what is should be included

	Type	Budget	Project budget	Projects
HORIZON-HLTH-2022-DISEASE-06-02-two-stage	RIA	60.00	Around 6.00	10

Pre-clinical development of the next generation immunotherapies for diseases or disorders with unmet medical need

Expected Outcome:

This topic aims at supporting activities that are enabling or contributing to **one or several** expected impacts of **destination 3 "*Tackling diseases and reducing disease burden*".** To that end, proposals under this topic should aim for delivering results that are directed, tailored towards and contributing to some of the following expected outcomes:

1. The **scientific and clinical** communities make effective use of the **pre-clinical validation** of next generation immunotherapies for **high burden** communicable and/or non-communicable diseases or disorders with **unmet medical needs**.

2. New knowledge of **mode of action** of the **novel immunotherapies** and/or **combinatorial** treatments is **published** and used by the **scientific and clinical** communities for **further development**.

3. New **high burden disease or disorder personalized models** (*in vitro* and *in vivo*) and **next generation immunotherapies protocols** are available to the scientific and clinical communities.

4. **Health care professionals** have access to and use the **new evidence-based safety and efficacy guidelines** for **immunotherapies** and/or **proof-of-clinical concept** as single or combinatorial treatments as compared to existing approaches.

Scope: Immunotherapy is defined as a treatment able to stimulate or restore the ability of the immune (defense) system to fight infection, disease or disorder.

Immunotherapy has proved to be a valuable medical solution notably when preventive treatments are not available. Passive and active immunotherapies (such as **antibody-based, RNA-based and cell-based therapies, respectively**) are covered by this topic, which is aiming at the **pre-clinical to first-in human** development of **next generation immunotherapies** for unmet needs. The proposals should build on existing knowledge in the field, when available, in order to save time and to avoid spilling resources, and could build on the **knowledge of the interaction between the immune system** (innate and adaptive arms) and **the microbiota,** or take advantage of key enabling technologies such as **biotechnology and nanotechnology**, **advanced manufacturing, imaging, 5G, internet of things, artificial intelligence and existing databases**.

Next generation immunotherapies are needed in order to **improve and diversify the health standards of care of several communicable or non-communicable diseases** that cannot be effectively tackled with the current available treatments.

….next slide….

Selected projects encouraged to participate in joint activities as appropriate - clustering of projects and involve joint coordination and dissemination activities / joint workshops / the exchange of knowledge/ development and adoption of best practices. Successful proposals will be also encouraged to exchange with other relevant proposals funded under other topics and other clusters to ensure synergies on cross-cutting challenges of common interest such as **under cluster 5 the topic 5.2 or some EIC topics.** …include a budget to cover those joint coordination and dissemination activities without the prerequisite to define concrete joint activities at this stage. The details of these joint activities will be defined during the grant preparation phase with the Commission.

Scope (continued): Proposals are expected to address the following research gaps for the development of effective and safe immunotherapies:

1. Preclinical development and study of new immunotherapeutic agents in vitro and in relevant animal model(s) of the disease(s). This **includes** understanding of the therapy's agent(s) mode of action, its toxicity, the development of related potency assay(s), and its/their validation in vitro and in vivo. A robust regulatory and HTA strategy should be in place at the start of the proposal.

2. Off-the-shelf therapies, **including** the cell-based therapies, will be considered as assets during the evaluation.

3. Proposals **could include** proof-of-concept/first-in-human studies for **testing** the new therapies, with a clear regulatory and clinical path and should address as appropriate the therapy-related potential adverse effects. Proposals should take sex, gender, age and socio-economic factors into account when appropriate. Phase II studies or higher phases trials will **not be supported**.

4. Leverage the development of a standardised framework of assays and data usage for a robust assessment of the safety and efficacy.

5. In case treatments are already available for the proposed targeted disease(s), a justification of the need for development of a new immunotherapy treatment is requested.

6. The proposed action should include a pathway of the necessary steps to ensure sustainable therapeutic agent production and uptake by health systems and rapid access to patients.

DO NOT FORGET - Destination 3 "*Tackling diseases and reducing disease burden*"

Expected impacts: Key Strategic Orientation KSO-D *'Creating a more resilient, inclusive and democratic European society'* of Horizon Europe's Strategic Plan 2021-2024

1. **Health burden** of diseases in the **EU and worldwide** is reduced through **effective disease management**, including through the development and integration of innovative diagnostic and therapeutic approaches, personalised medicine approaches, digital and other people-centred solutions for health and care. In particular, patients are diagnosed early and accurately and **receive effective, cost-efficient and affordable treatment**, including patients with a rare disease, due to **effective translation of research** results into **new diagnostic tools and therapies**.

2. **Premature mortality** from non-communicable diseases is **reduced by one third** (by 2030), mental health and well-being is promoted, and the **voluntary targets** of the WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 are **attained** (by 2025), with an immediate impact on **the related disease burden** (DALYs)".

3. **Health care systems benefit** from strengthened **research and innovation expertise**, human capacities and know-how for combatting communicable and non-communicable diseases, including through **international** cooperation. In particular, they are better prepared to respond rapidly and effectively to health emergencies and are able to prevent and manage communicable diseases transmissions epidemics, including within healthcare settings.

4. Citizens benefit from reduced (cross-border) health threat of epidemics and AMR pathogens, in the EU and worldwide". In particular, the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases are contained and hepatitis, water-borne diseases and other communicable diseases are being combated.

5. **Patients and citizens** are **knowledgeable of disease threats**, involved and empowered to **make and shape decisions** for their **health**, and better adhere to knowledge-based disease management strategies and policies (especially for controlling outbreaks and emergencies).

6. The EU benefits from high visibility, leadership and standing in international fora on global health and global health security, especially in partnership with Africa.

Note >2 pages had relevant context in this WP section

Analyse the WP

Expected impact:

Analyse the Call

Expected Outcomes:

- **diagnostic tools, platforms or services** integrating various **diagnostic data** and providing **quick, detailed, accurate and highly personalised diagnostics** for **optimal decision in clinical practice**.
- Improve the **quality and sustainability of healthcare systems** through **quicker and more encompassing diagnosis** of medical conditions, leading to **quicker and better clinical decisions** and timely delivery of **effective personalised treatments**, with **reduction of errors and delays (and costs associated to them).**
- Contribute to the **growth** of the **European diagnostics sector**, in particular **for SMEs.**
- **Reinforce** EU's role among **world leaders** in the **production of medical diagnostic devices.**

Other impacts and barriers

- **What other impacts might be important?**
  - Jobs and growth across economic areas,
  - The Digital Single Market, the Energy Union and climate action.
  - R&I is at the core of productivity and the competitiveness of an advanced economy like the Union's.
  - Make the business environment more innovation-friendly
  - Support European citizens during the turbulent transition driven by innovation, digitisation and global megatrends such as artificial intelligence and the circular economy.

- **Barriers to the expected Impact and strategies to address them.**
  - Regulations and standards
  - Training
  - Business plans and funding
  - Scale up and further testing, demonstartion
  - Etc etc

Understanding Results vs Outcomes

Results

- Generated during the project. Examples: know-how, innovative solutions, algorithms, proof of feasibility, business models, policy recommendations, guidelines, prototypes, demonstrators, databases/datasets, trained researchers, new infrastructures, networks, etc.
- Most project results are 'Intellectual Property', appropriate planning for 'Intellectual Property Rights'.

Research output

- Results accessible in the form of scientific publications, data or other engineered outcomes and processes such as software, algorithms, protocols and electronic notebooks.
- OPEN SCIENCE PLANNING IS IMPORTANT

Outcomes

- Expected effects, over the medium term, of **projects** under a given topic. 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.
- **Example: 9 European airports adopt an advanced forecasting system demonstrated during the project…what happens next!?**

Template: 2 Impact
2.1 Project's pathways towards impact [e.g. 4 pages]

What the EC evaluate:

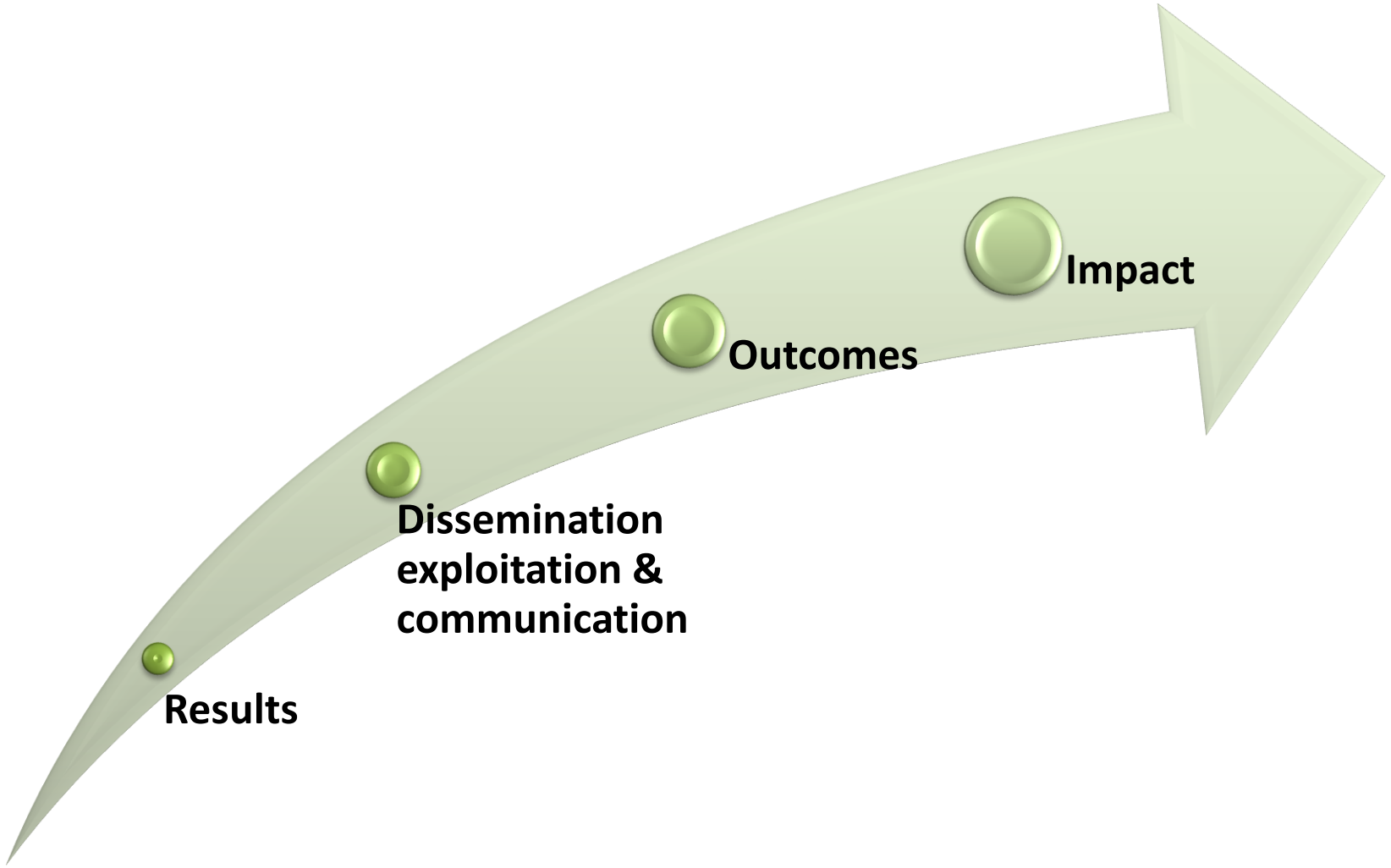
Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.

What the EC say:

Be project specific. Focus on *significant and direct contribution*. Address any *negative environmental outcome or impact of the project (scale-up?)/management strategies.*

- ***Scientific**, e.g. contributing to specific scientific advances, across and within disciplines, creating new knowledge, reinforcing scientific equipment and instruments, computing systems (i.e. research infrastructures);*
- ***Economic/technological**, e.g. bringing new products, services, business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting, etc.*
- ***Societal** , e.g. decreasing CO2 emissions, decreasing avoidable mortality, improving policies and decision making, raising consumer awareness.*

Pathway to Impact – logical steps



Big SPECIFIC - Example: SDGS

Figure·XX·The·United·Nations·has·identified·17·Sustainable·Development·Goals,·the·project·results·directly·impact·on·seven·of·these·SDGs,·most·important·to·the·project·are·SDGs·3,·12·and·14..·¶

- For most important SDGs detail goals addressed
- Describe how the results support work towards SDGs
- Stress global nature of outputs
- Be clear and specific
- Etc

Knowing the project results and how to manage them

Pathways to Impact per result => commercial/non commercial

Results and outcomes	Targeted Users (users, buyers, policy-makers….)	Exploitation strategy: Free, Open, (non) or (co-) exclusive	Publication strategy Protect or Open science/data	Potential Use and Rights: Research or Commercial Non commercial.	Time to market or TRL	Next steps and Involvement of value chain	Barriers and risks
Measurements on…….							
Product / technology							
Standard							
Platform							

Who cares?

Commercial value – Research vale

Who will use? Partner or external?
Are the IP rights clear

Planning table – use table or well structured text and graphics

IDENTIFYING Valorisation EXAMPLES

ODAK
Orphan Drug for Acanthamoeba Keratitis

ODAK is a european FP7 project for the pharmaceutical development of an orphan drug for the rare ocular disease Acanthamoeba Keratitis.

NEW (DRUG) PRODUCT (CO-1 & Hospital)	IMPROVED CLINICAL PRACTICE (CO-1 & Hospital)	NEW SERVICES (All)	NEW RESEARCH PROJECTS University	POLICY MAKING (ALL)
•Strong Orphan drug position •Clinical trials results •EMA for Market Authorisation •Discussion with Payers •New Manufacturing •Routes into clinic •Staged market roll-out •Trial sites •Existing markets •EU •ROW with partners •Financing plans	•Retrospective study results •New Guidelines •Disease awareness raising •Key Thought leaders involved •Clinical input from trial sites •Dissemination linked to take-up e.g. Publication •Global reach	•Better understanding of disease, better understanding of PHMB, consider additional products •Experience in infectious diseases expands offered expertise •MP - links to new clinical sites and manufacturing expertise, linked to product offers •New tests under development to expand service offer and consultancy	•Advancing SOTA •New links to R&D community •Insights guiding new project ideas •ODAK provides a platform to build and lobby from •Publications	•New drug contributes to IRDiRC programme •New information to support activities of • patient and trade groupings •Knowledge to support healthcare decision makers •Briefing documents •Presentations and workshops •Other engagement activities
✓ EC Primary target				✓ EC Primary target

What to exploit → IP management → Next steps → Who to work with → What timescales → Financing → Expected outcome

Barriers and obstacles?

- To realize the outcomes of the call and the expected impact of the desitnation theme in the WP analyse potential barriers or obstacles that have to be overcome

Examples :

- Regulatory
- Demonstration
- Training
- Process optimization and Scale-up
- Clinical trial
- Public acceptance

Next steps & financing (?)

Example: Clinical development of new drug

- Further Trials: Competition for patients and suitable sites in larger follow-on studies
- Regulatory barriers: In EU regulatory approval based on safety and efficacy leading to a Marketing Authorisation. Is there a pathway? Who can help?
- Drug manufacturing scale up.
- Funding for future studies
- Need for clinical guidelines

We needed a business plan:

Market research – patient numbers/treatment costs (KoLs/Payers)

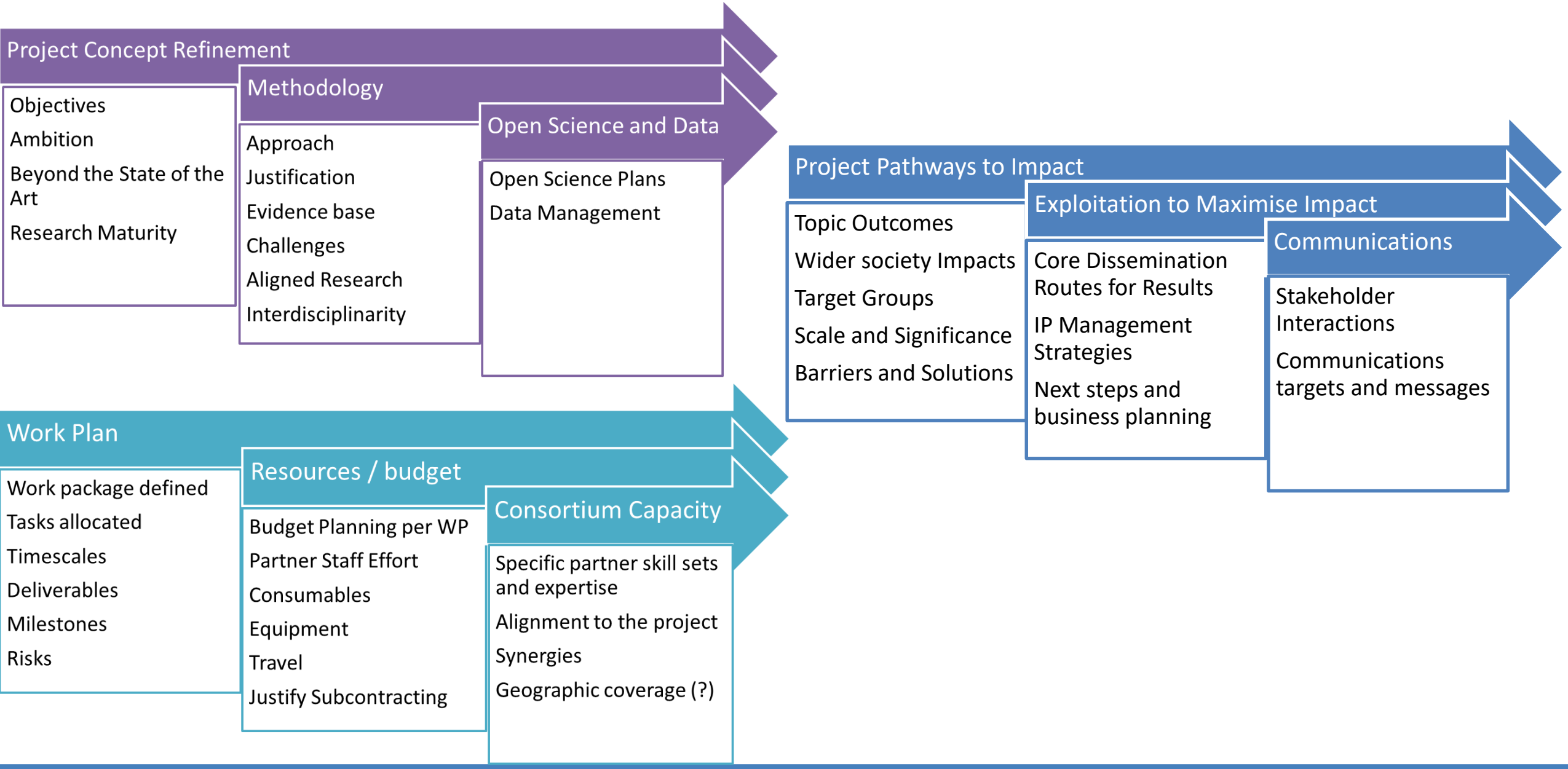
Value offer – support decision making

Route to market (roll-out)

Early adopter

Investment strategy

Think about the proposal overall – driving towards impact



Think about Synergies

- Complementary capacities: European research, innovation and space infrastructures and services
- Complementary activities: other EU programmes,
  - EU4Health, Digital Europe Programme (DEP), InvestEU, European Regional Development Fund (ERDF), European Social Fund (ESF+) and Structural Reform Support Programme (SRSP).
  - could support the development of skills and capacities
  - accelerating the take-up and use of scientific results and outputs, best practices at national or regional level.

2.1c Scale and Significance

- How does the project contribute to Impacts
- Scale: How widespread is impact
  - Size of target group vs actual beneficiaries
- Significance
  - Quantified positive benefits
- Explain and justify basis for calculations
  - Ensure consistency in approach

Build on Key performance Indicators

Key Performance Indicators @ project level

Clinical trial project

- Study sites open
- Patients treated
- Additional healthy years
- Drug batches manufactured
- KoLs consulted
- HTA workshops
- Patient group webinars
- Genetic counsellors trained
- Biomaker databases
- Business plan
- Regulatory files
- Scientific papers submitted

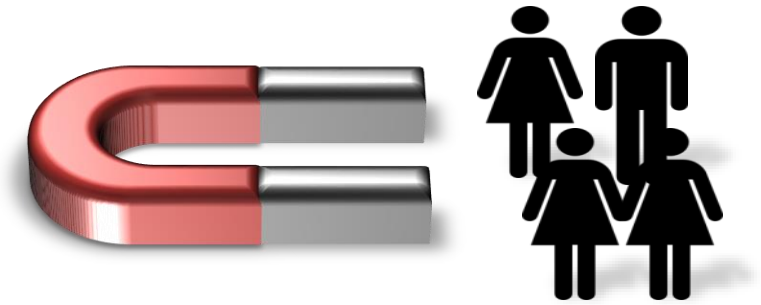
Eco- Rennovation project

- Buildings improved
  - Per pilot site region
- Solar panels installed
  - New Energy generation KW/h
- Innovative insulation installed
  - GHG reduction
  - Energy savings
- Cost savings @ community level (€)
- Demonstration days
- Contractors trained
- ~~100 scientific papers in 5 years~~
  - REALISTIC NUMBERS!!!

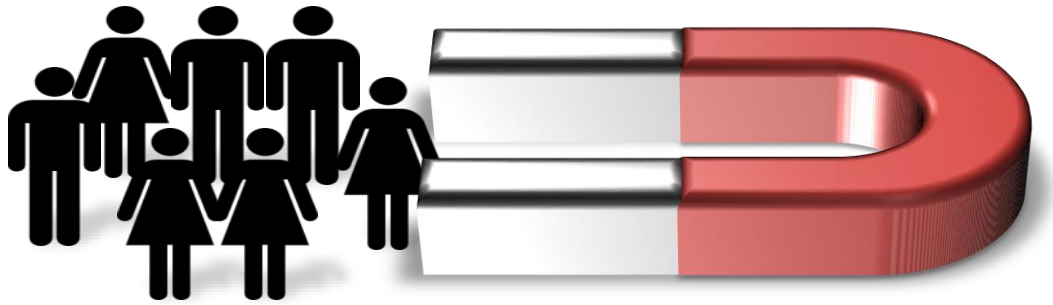
Plan for the dissemination and exploitation including communication activities

Suitability of measures to Maximise expected outcomes and impacts

Reaching your targeted audience is not enough



Maximise impact



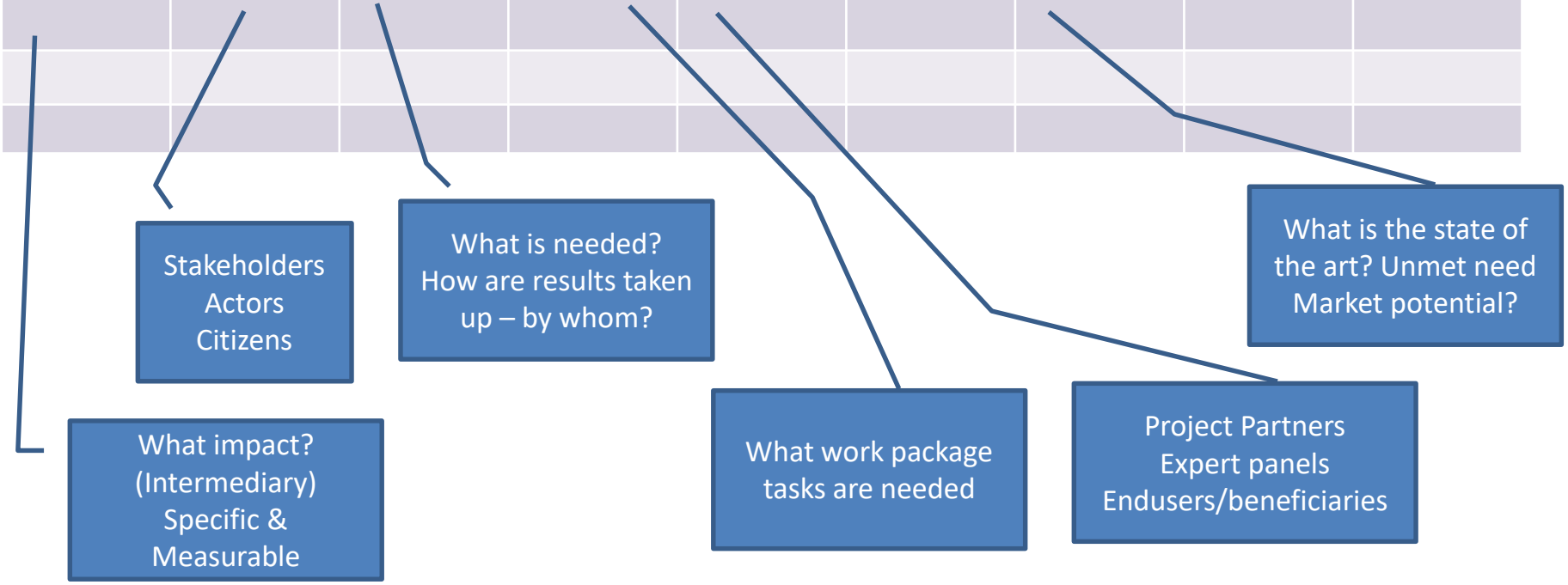
Why & how will chosen strategy maximise impact

CERATIUM
HELPING SCIENCE HAPPEN

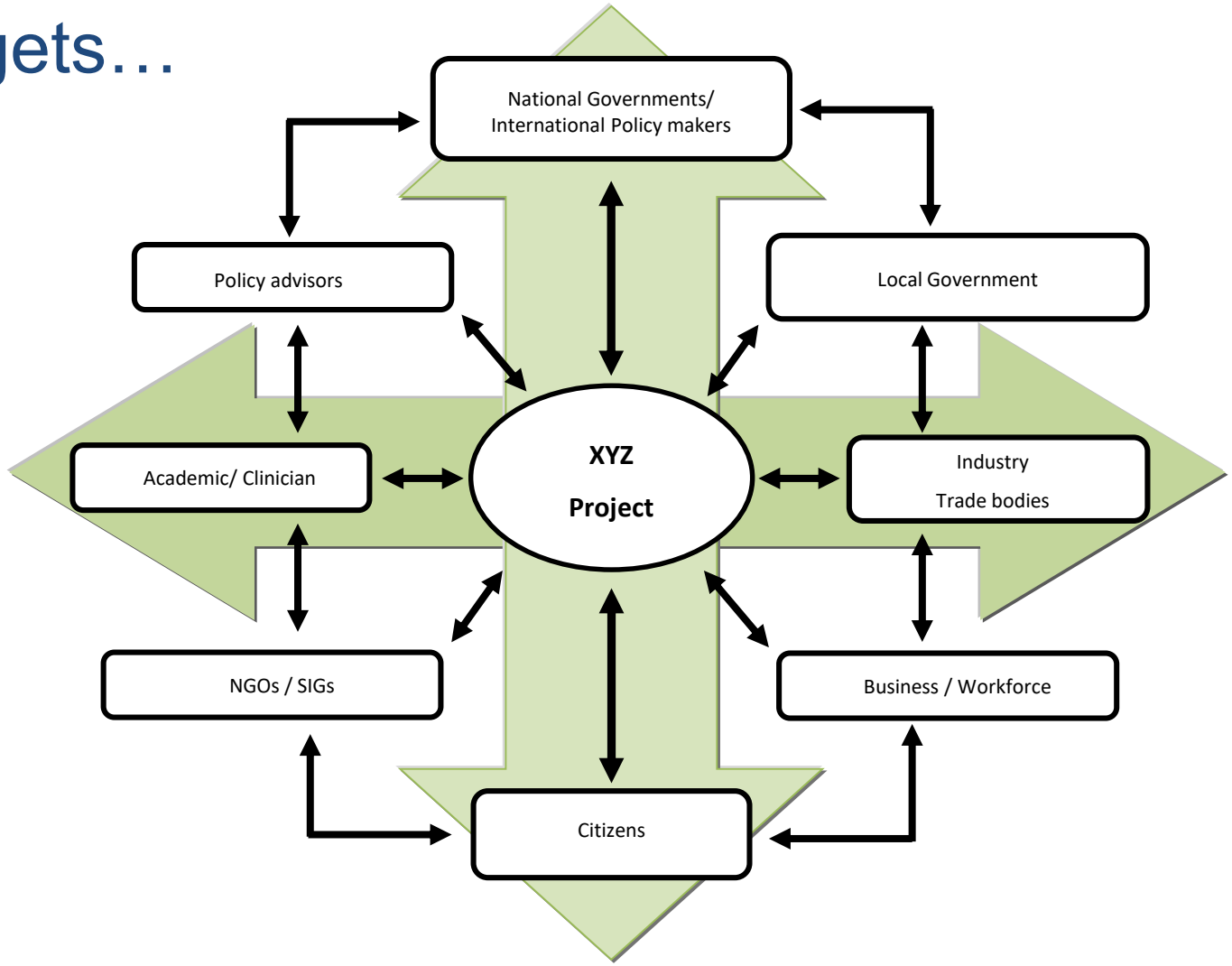
How to Write Impact for Dissemination

Practical Impact driven Design Framework

Target Impact goals	Who is interested?	Key results	Activities to deliver result	Who is needed ?	Timing of tasks	What background is required	Steps after the project	Budget and future planning



Stakeholders become Targets…



Protect?

100% Open Access Publishing

Optimise research data for reuse

Various strategies

IMPACT

Dissemination.

1. Create an overview of the scientific outcomes per WP
2. Why important for whom
3. Is a broader circle of potential audiences addressed
4. ~~green'~~ or 'gold' model to peer-reviewed scientific publications

Immediate open access is provided to the deposited publication via the repository, under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) etc

Be as specific as possible: Use a table?

- What results will be publicly disclosed and where – **Propose Titles**
- What makes these outcomes significant/ important for the targeted audience – **Determines target publication/conference and rationale**
- When (don't start too late) – **Justify timing**
- How – what routes and why? **Propose target publication/conference**

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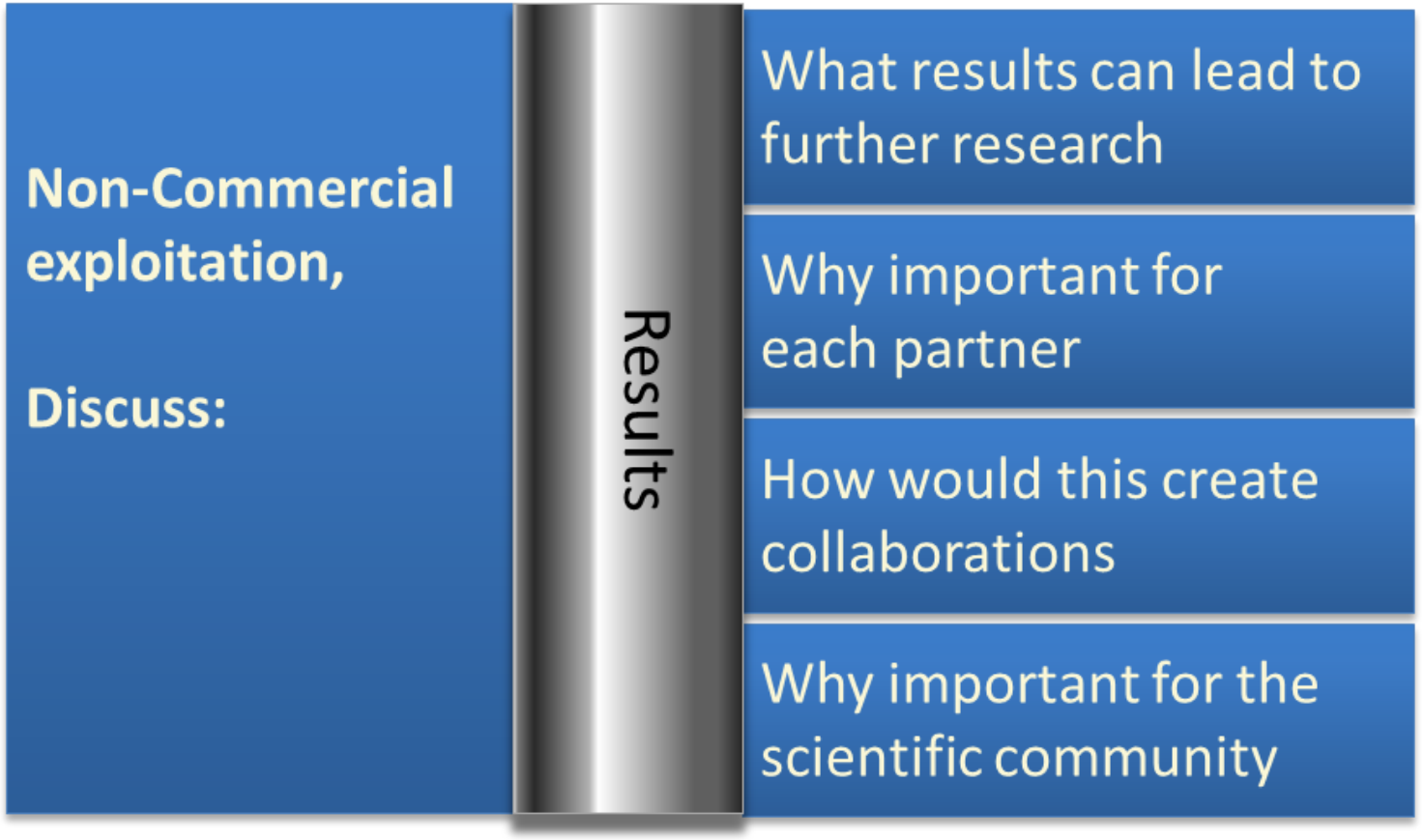
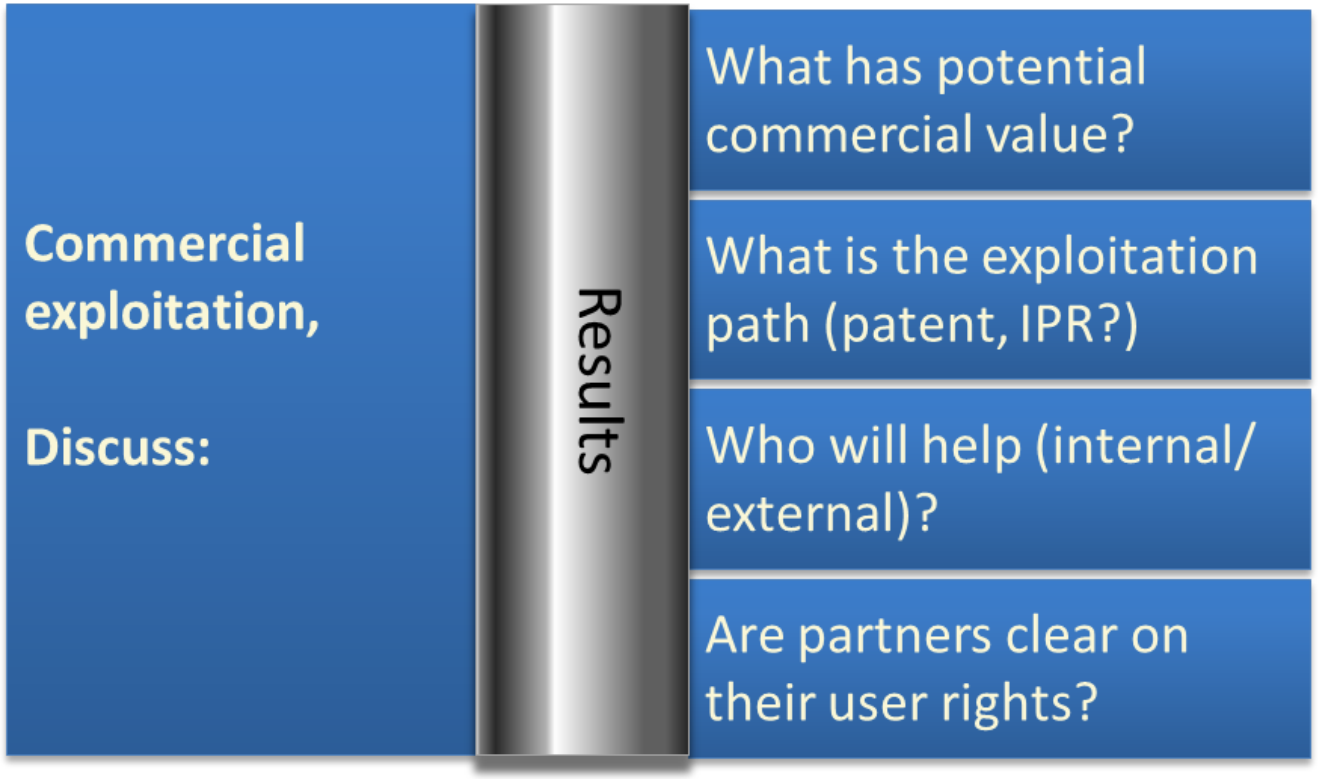
HELPING SCIENCE HAPPEN

How to Write Impact for Exploitation

Non-Commercial



Commercial: is a business plan needed



Contribution to standards

Standardisation is a **voluntary cooperation** among industry, consumers and public authorities for the development of technical specifications based on consensus.

Important because:

- Standardisation contributes to the development of sustainable industrial policy,
- Unlocks the potential of innovative markets and strengthen the position of European economy through more efficient capitalising of its knowledge basis
- A negative element may be loss of creativity –sector dependent ?

- Cross-check with your objectives in B1.1

http://ec.europa.eu/enterprise/standards_policy/index_en.htm

Take-up and use for social, environmental and policy making

Address under exploitation or dissemination

Describe:

- Measures put in place to systematically evaluate the project results on these issues
- How will input be provided to forward studies EU & other policy making bodies

⇒Describe the partners and others incl. stakeholder involvement

⇒Opportunity for Humanities?

⇒E.g. Policy specialist? Economists? Legal? Ethics? Behavioral? Teaching? Media?

Allocate outcomes to exploitation pathways

- Which partners are responsible
- Next steps
- Market data – entry route – future investment

Further Research	Product or Process	Service	Standardiation
Data	Device	Knowledge	ISO for device
Database	Algorithm	Tool	
Tool	Design		
	Tool		

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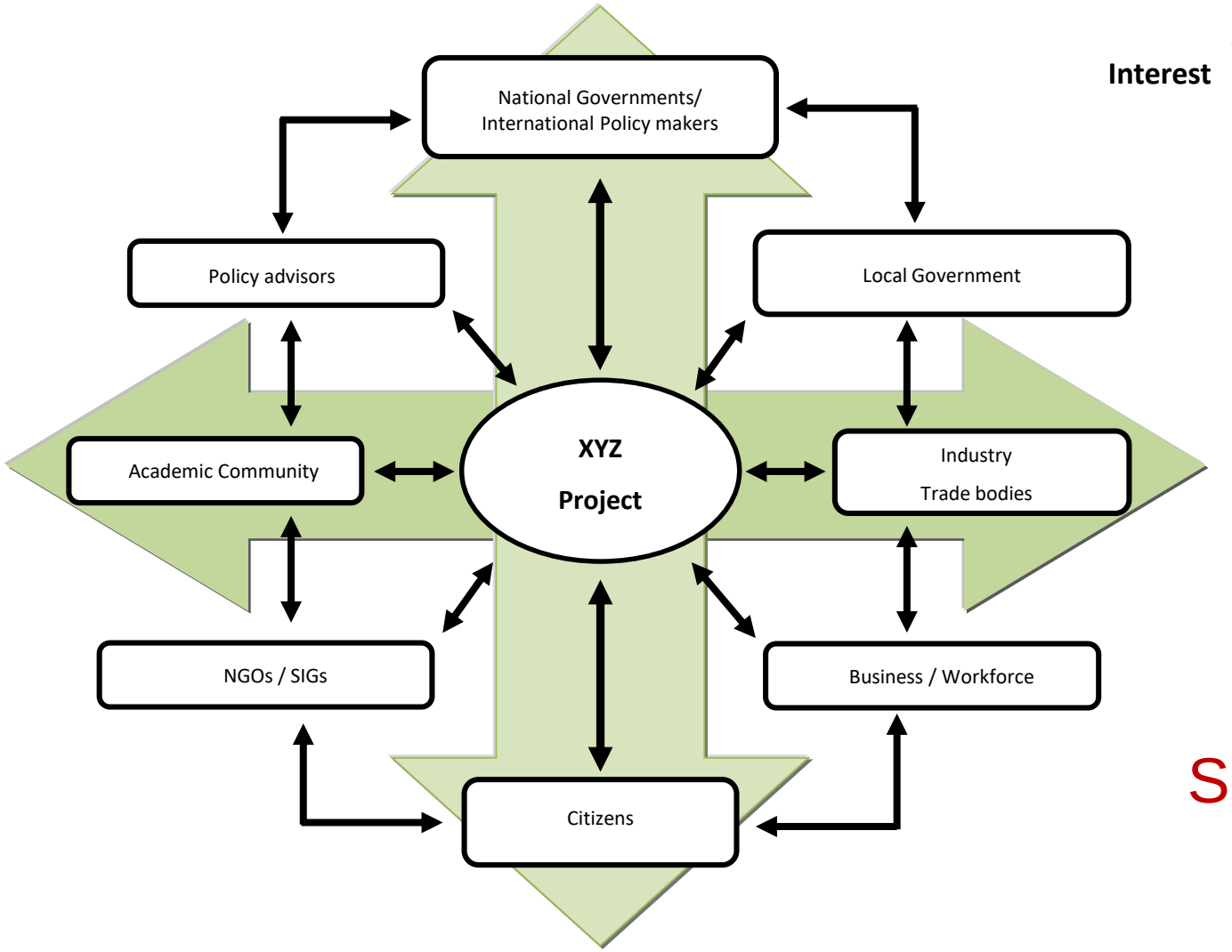
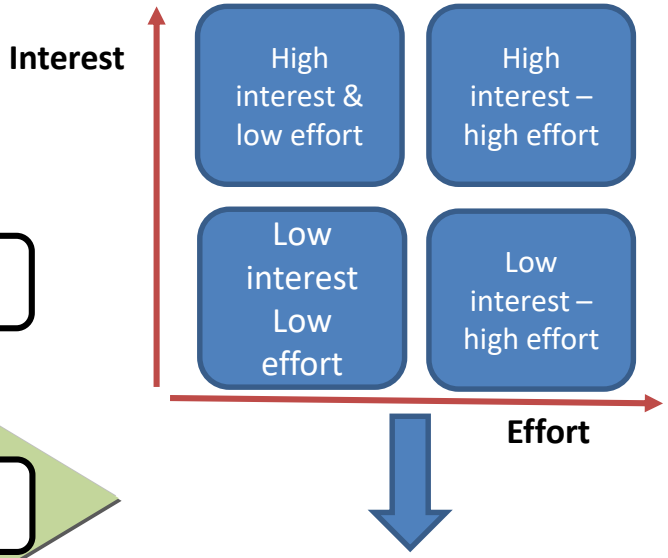
How to Write Impact for Communication

Communication and Dissemination Targets…





Various channels

Specific channels

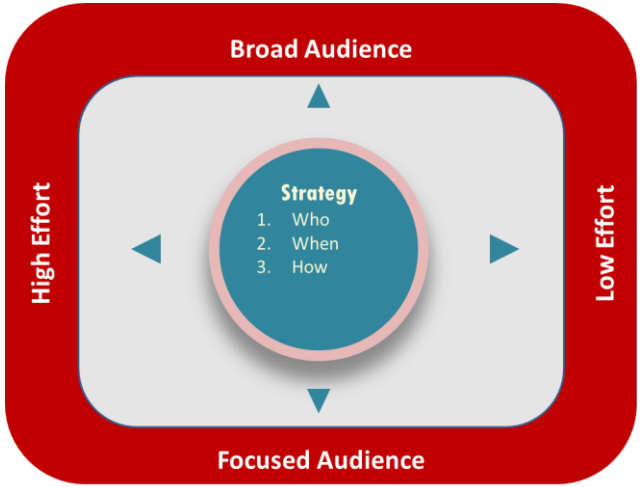
Communication objectives

Reaching targeted audiences

1. **Awareness raising** (draw attention of national governments, regional authorities, public and private funding sources)
2. **Interest raising** or Persuasion about the relevance and applicability of something (the impact) or of attracting potential partners
3. **State of the Art** – the more traditional tools of the academic community both scientist and students
4. **Decision- tools** that provide in depth understanding of the project or innovation or attract financial backers, future licensees, industrial implementers
5. **Action** or Generating Market demand

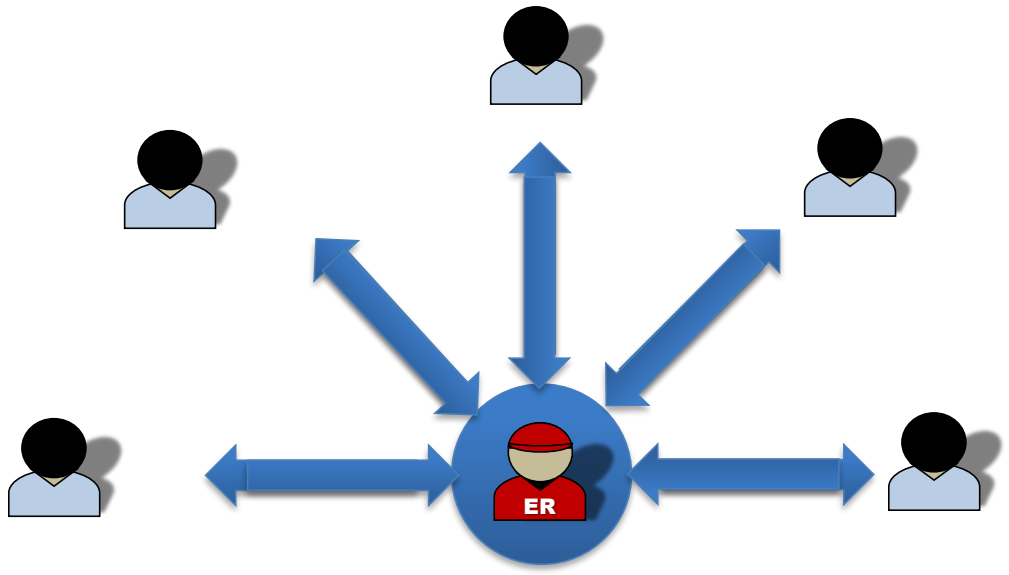
BE CLEAR
WHY ARE YOU DOING THIS?

Which forum will amplify your work best?



- Who needs to be informed?
- What forum will reach these groups
- Measure success of your communication by:
  - Evidence in media
  - Number of articles in the press
  - Visits to website
  - Participation in events
  - Survey with end users

Select the appropriate channel



1 – Way Channels

- *Twitter, Youtube*
- *Brochures*
- *News paper articles*
- *Broadcasts*

2 – Way Channels

- *Consultation events*
- *Research night,*
- *School visits*
- *Webinars……*

Dissemination and Communication Plan

Target Audience	**Outputs and Message**	**Channel**	***Benefit***	***Success indicators***
Academics: - which community - PhD students	Result A	Scientific publications; Methods, techniques	State-of-the-art Action-Using	
Patients	Information 1	Newsletter of patient organisation Workshops		
Public	Message 1	Press releases information about website/social media	Why? When?	
Public Sector users: - -	Recommendation 1	Policy reports Workshops Intermediary?	Awareness; Interest; Decision; Action-using	How do you show take up and use?

Generic statements
ARE NOT COMPETATIVE

Data Management

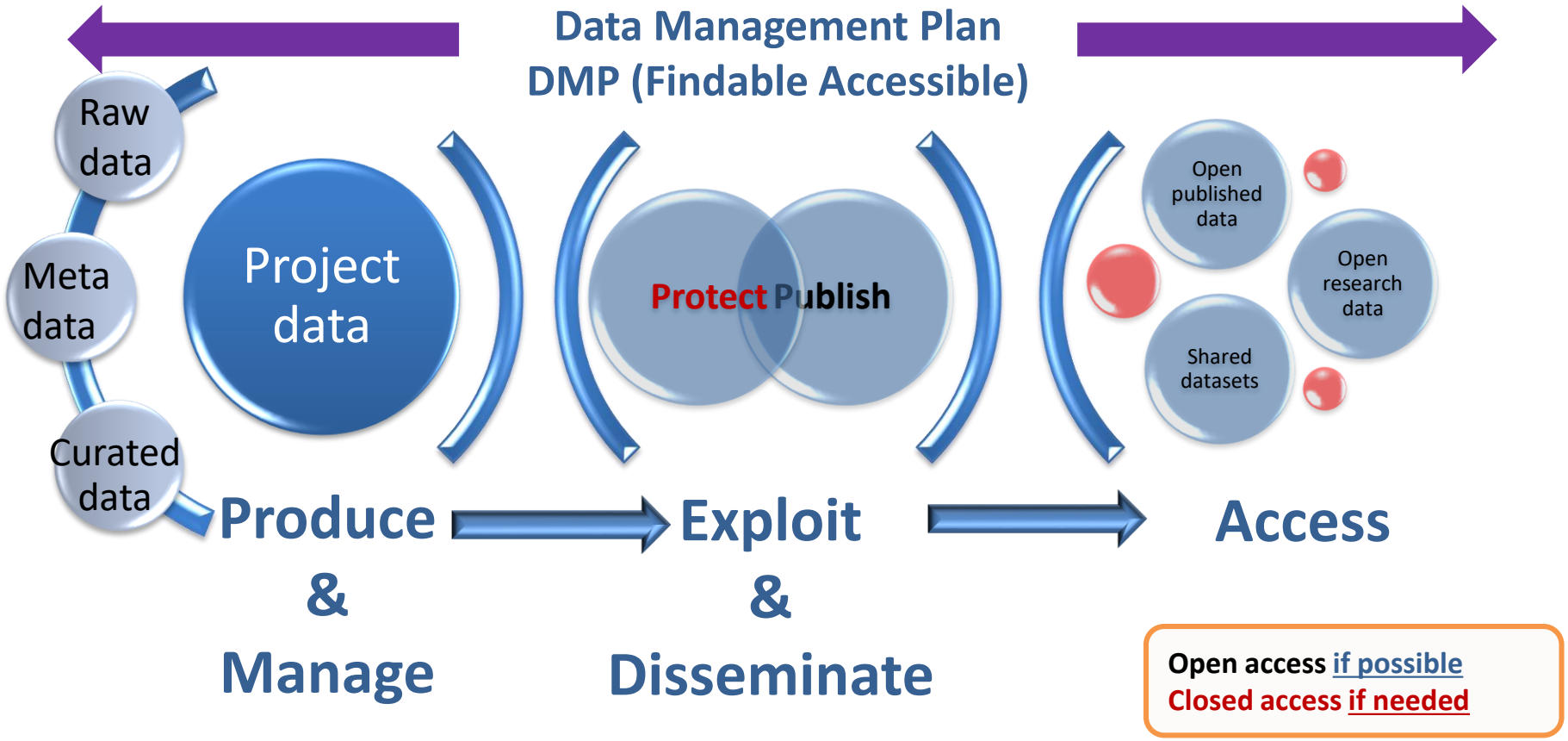
Data

- Factual records (numerical scores, textual records, images, sounds). Copyright protection.
- Which are used a primary sources for scientific researcher
- Are often necessary to validate research findings

Database - Define

- Collection of data
- Who is the owner
- Who has access
  - Only to own results
  - To all results
  - Third party access
  - Open Access
- Duration of access
  - For and/or after the project
  - Consequences of GA termination
  - Termination of involvement

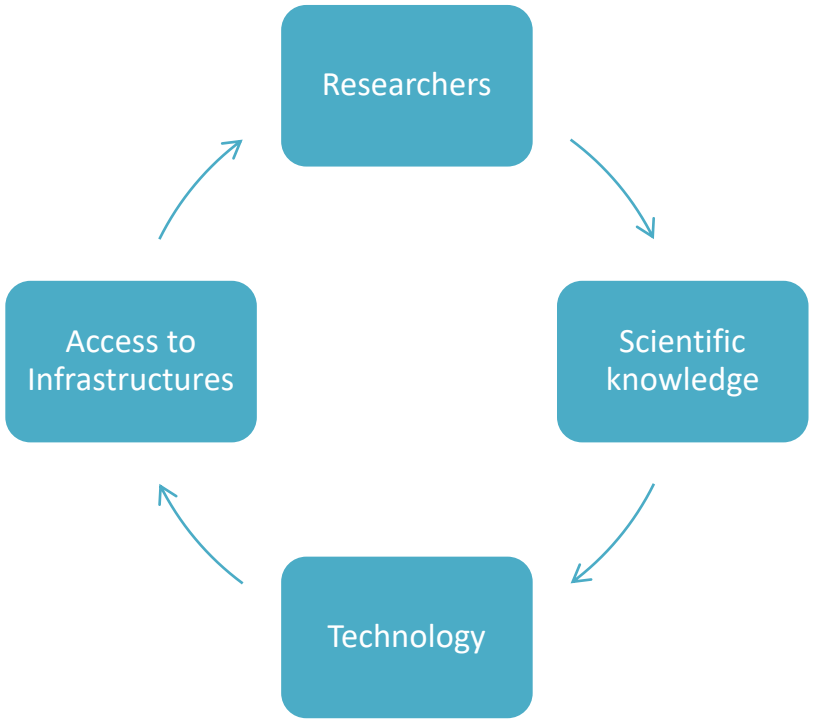
Open science //**Open data**



Why Open Science (and Open Data)

EUROPEAN OPEN SCIENCE CLOUD

- Too much dark data
- Too little innovation
- Encourage collaboration
- Encourage sharing
- **Encourage USE of results**

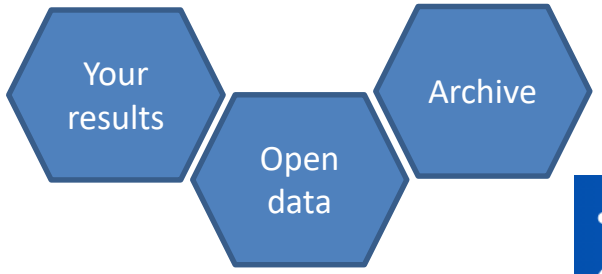


Encourage Use of Results such as:

- any scientific or technical information, invention, design, process formula, method;
- any concepts, samples, reports, data, know-how, works-in-progress, designs, drawings, photographs, development tools, specifications, software programs, source code, databases;

Collaborate …Publish… collaborate publish… publish…..

Think…protect…..publish…



GitHub

EUROPEAN OPEN SCIENCE CLOUD

zenodo

OpenAIRE

Encourage Use of Results such as:

any scientific or technical information, invention, design, process formula, method;

any concepts, samples, reports, data, know-how, works-in-progress, designs, drawings, photographs, development tools, specifications, software programs, source code, databases;

Be positive ……. But be careful!

Budgeting for project impacts

- Dissemination & Exploitation activities are eligible costs during project
  - networking
  - customer/stakeholder consultations
  - publications and conferences
  - ip protection including using advisors
  - justified travel
  - develop prototypes to be close to end product
  - engagement with “next user” / customer
- Post-project costs are not eligible but…
  - clearly outline plans
  - highlight routes to potential funding sources

EXPLOITATION PLANS ARE OFTEN POORLY RESOURCED!

What does impact really mean?

Template: 2.3 Summary of the Project Impact Pathway

Useful tool

KEY ELEMENTS OF THE IMPACT SECTION

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?

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

HE Destination planning - EC Example 1

SPECIFIC NEEDS

What are the specific needs that triggered this project?

Example 1

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.

EXPECTED RESULTS

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

Example 1

Successful large-scale demonstrator: Trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.

Algorithmic model:
Novel algorithmic model for proactive airport passenger flow management.

D & E & C MEASURES

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

Example 1

Exploitation: Patenting the algorithmic model.

Dissemination towards the scientific community and airports: Scientificpublication with the results of the large-scale demonstration.

Communication towards citizens: An event in a shopping mall to show howthe outcomes of the action are relevant to our everyday lives.

TARGET GROUPS

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

Example 1

9 European airports:
Schiphol, Brussels airport, etc.

The European Union aviation safetyagency.

Air passengers (indirect).

OUTCOMES

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

Example 1

Up-take by airports: 9 European airports adopt the advanced forecasting system demonstrated during theproject.

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?

Example 1

Scientific: New breakthrough scientific discovery on passenger forecast modelling.

Economic: Increased airport efficiency
Size: 15% increase of maximum passenger capacity in European airports, leading to a 28% reduction in infrastructure expansion costs.

EC Example 2

SPECIFIC NEEDS

What are the specific needs that triggered this project?

Example 2

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.

EXPECTED RESULTS

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

Example 2

Publication of a **scientific discovery on transparent electronics.**

New product: More sustainable electronic circuits.

Three PhD students trained.

D & E & C MEASURES

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

Example 2

Exploitation of the new product: Patenting the new product; Licencing to major electronic companies.

Dissemination towards the scientific community and industry: 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.

TARGET GROUPS

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

Example 2

End-users: consumers of electronicdevices.

Major electronic companies: Samsung,Apple, etc.

Scientific community (field of transparentelectronics).

OUTCOMES

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

Example 2

High use of the scientific discovery published (measuredwith the relative rate of citation index of project publications).

A **major electronic company** (Samsung or Apple)
exploits/uses the new product in their manufacturing.

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?

Example 2

Scientific: New breakthrough scientific discovery on transparent electronics.

Economic/Technological: A new market for touch enabled electronic devices.

Societal: Lower climate impact of electronics manufacturing (including through material sourcing and waste management).

Monitoring Impacts and Key Performance Indicators

- EC level described above
- Project Level
  - EC reporting
- Beneficiary level (Lund)
  - In house systems
    - Local metrics
    - Case studies
  - Use Open Science tools
    - E.g. Zenodo allows tracking through grant number
    - EC Open Science Cloud

Lobbying and Cocreation

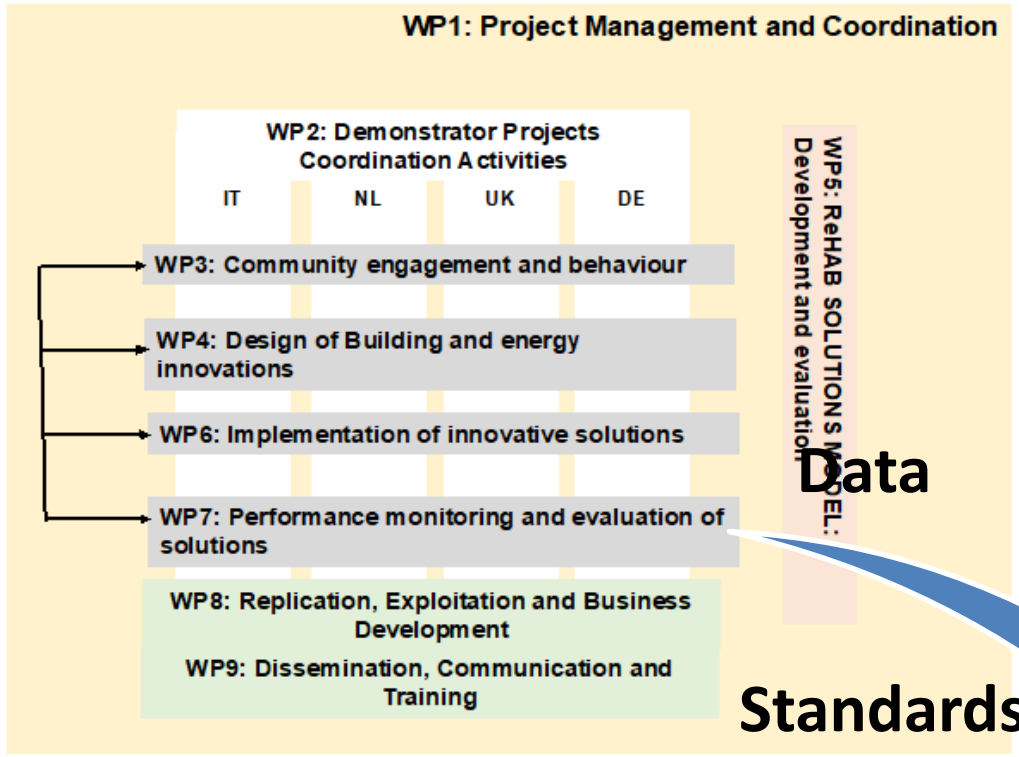
- Stakeholder consultations early
- Use projects as platforms to promote interests
  - Researcher
  - Group / Consortium
  - Institution
- Use projects to build links and networks BEYOND academia

Final thoughts and tips:

Things to keep in mind

AGREEMENTS – needs driven

- ✓ Memorandum of Understanding
- ✓ Non-Disclosure/Confidentiality Agreements (NDA/CDA)
- ✓ Grant Agreement
- ✓ Consortium Agreements
- ✓ IP Licence Agreement



Data

Standards

Results

Ownership

Step to Next user

Who else cares

Pathway to policy Green

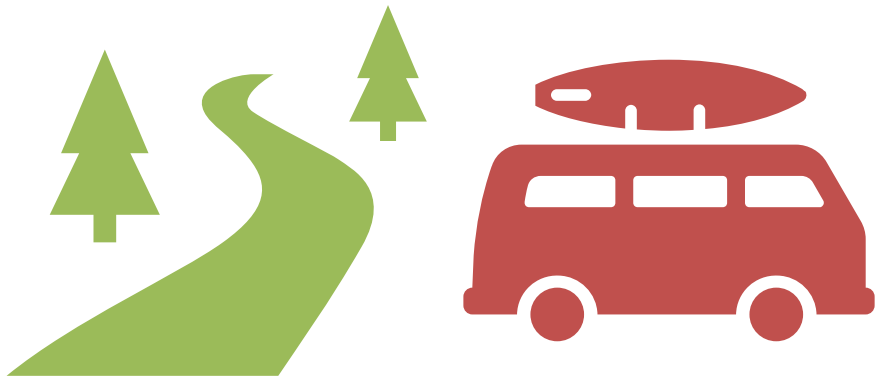
Writing Tips for impact – be clear and concise

- Be clear and concise
- Be specific: What **results and impact are expected from this project**?
- Who is the **main user of the result**?
- Be specific about which results drive change (IMPACT)
- What is the importance to the user /target group and how will they use the result?
- What actions will ensure that the **user knows about the results**?
- Actions for each partners in the consortium **plans for exploitation of the results**?
- Which steps happen in the project ?
- Do not forget to plan steps that could happen after the end of the project?
- Quantify things when possible – justify baselines
- Use diagrams and tables!

The one page proposal – a useful tool…BUT…target to you audience

Topic	Planning vision document	Partner search document
Call OUTPUT	Engaging description of what the focus will be	Who is needed
Conceptualize	What is THE core PROBLEM Rationale European not National level approach? Novel Idea? Timeliness	Engage partner – why important ? Highlight specific areas of interest to the target partner Why them? Why this consortium?
Big Question	Why is this *The* question What are the specific questions/objectives Why do we need each other to address these	Big Picture Outcome (scientific) Specific impact : Societal, Cultural, Economic, etc
How?	How is the work clustered and why interdisciplinary • Headline summary of WPs	What role is envisaged
Results & impact	What are the expected results? Who will use them results? How are to transfer the results? What will be changed by project impact?	Highlight results of interest Align impact to partners interests/mission

HE Road Map and Action Plan



- Successful teams plan for a portfolio of projects
- Focus on opportunities as soon as possible
- Prepare to Adapt to the Work Programme
- Check you Network
  - Who is missing
- Exploit existing platforms to build momentum
- Think in terms of 1 - 2 – 5+ years

Challenge Led: From inception to completion

Your Ideas

Research & Innovation Needs = PROPOSAL

Funding Needs

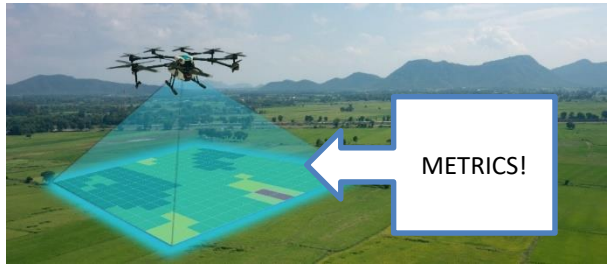
Product/Service

Shape research strategy	Foresight, horizon scanning fit into landscape
Find partners	European/International networks, brokerage, initial due diligence
Identify funding	Grants, Venture Philanthropy, Loans, develop proposal plans
Write proposals	Clear concepts, creative approach, strong rationale
Manage projects	Contracting, planning, budgets monitoring, reporting,
Valorisation	IP strategies, business planning, communication, dissemination

DATA to convince

PEOPLE To Deliver

RESULTS Driving Change



Yellow Research

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Thank you

Questions