

HORIZON EUROPE e IMPACT PATHWAY

Matteo Sabini

21/05/21



Introduzione al corso

orario	Registrazione dei partecipanti
15.00	Apertura della sessione virtuale HORIZON EUROPE Una lettura d'insieme
	TEMPLATE E IMPACT PATHWAY
16.30	Pausa
16.40	ESERCITAZIONE
18.40	Discussione in plenaria
19.00	Chiusura del corso



<u>Chi sono</u>

Laurea in Scienze Politiche

- Master in progettazione europea a internazionalizzazione imprese
- Senior Project Manager
- **Formatore**
- Membro EEN SG Agrifood

Contatti

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MARIYA GABRIEL

COMMISSARIA EUROPEA PER L'INNOVAZIONE, LA RICERCA, LA CULTURA, L'ISTRUZIONE E LA GIOVENTÙ Horizon Europe è il più ambizioso programma di ricerca e innovazione dell'UE mai realizzato.

Parte dall'esperienza di Horizon 2020 e la migliora, con un sostegno più forte all'innovazione pionieristica attraverso EIC - Consiglio Europeo per l'Innovazione, un maggiore impatto attraverso le Mission e una razionalizzazione dei Partenariati. (...)

Per un futuro verde, digitale e inclusivo.

Genesi di HEU

Vision



Contesto mondiale

Le nostre conoscenze e competenze sono le nostre principali risorse.

- **7%** della popolazione mondiale
- **120%**della R&S mondiale

1/3di tutte le pubblicazioni scientifiche di alto livello



1,3%, l'investimento in R&S delle imprese dell'UE

...l'Europa non trasforma la sua leadership nella scienza in leadership nell'innovazione e nell'imprenditoria



Le raccomandazioni di Sibiu

Le raccomandazioni di Sibiu: l'Europa può plasmare il proprio futuro tramite la ricerca e l'innovazione

- Orientare la ricerca e l'innovazione verso la transizione ecologica, sociale ed economica e le sfide per la società che ne derivano
- Mobilitare le forze scientifiche dell'Europa per assumere la leadership nel campo dell'innovazione pionieristica e dirompente
- Stabilire **obiettivi ambiziosi** per le questioni che influiscono sulla nostra vita quotidiana, quali lo sviluppo delle competenze, la lotta contro il cancro, le emissioni nocive e la salute degli oceani, comprese le materie plastiche
- Concentrare l'attenzione sui progetti di **ricerca e innovazione all'avanguardia,**dalla fase di ricerca e innovazione all'attuazione

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La visione della Commissione

Investire in R&I per plasmare il nostro futuro

- Lotta contro i cambiamenti climatici (35 % dell'obiettivo di bilancio)
- Contribuire agli obiettivi di sviluppo sostenibile e alle priorità politiche della Commissione
- Migliorare la competitività e la crescita dell'Unione, perché Europa non trasforma ancora la sua leadership nella scienza in leadership in innovazione e imprenditoria







6 Commission priorities for 2019-24

A European Green Deal

Striving to be the first climate-neutral continent





A Europe fit for the digital age

Empowering people with a new generation of technologies

An economy that works for people

Working for social fairness and prosperity





A stronger Europe in the world

Europe to strive for more by strengthening our unique brand of responsible global leadership

Promoting our European way of life

Building a Union of equality in which we all have the same access to opportunities.



A new push for European democracy

Nurturing, protecting and strengthening our democracy

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<u>Obiettivi di Horizon Europe (2021 – 2027)</u>



rafforzare le basi scientifiche e tecnologiche dell'UE e lo spazio europeo della ricerca (SER)



migliorare la capacità innovativa, la competitività e l'occupazione in Europa



conseguire gli obiettivi prioritari per i cittadini e sostenere il nostro modello socio-economico e i nostri valori



Valore aggiunto di Horizon Europe



- Collaborazione (tra settori, tra paesi)
- Competizione
- Global challenges
- Eccellenza dei ricercatori e delle ricerca e
 - innovazione
- Nuovi mercati
- Mobilità



Genesi di HEU

Storia



<u>Come si è arrivati alla proposta Horizon Europe della Commissione</u> (2017-2018)



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L'esperienza di H2020



Horizon 2020 Evaluation

Valutazione dei primi tre anni di H2020 (Maggio 2017)



LAB – FAB – APP: Investing in the European future we want: Report dell'High Level Group indipendente, guidato Pascal Lamy, su come massimizzare l'impatto dei Programmi europei di R&I (luglio 2017)

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CommunicationontheinterimevaluationofHorizon2020, fasuoigliinputdeiduedocumentiprecedentiestabiliscelelineeguidadellafuturaProposta(all'epoca)FP9dellaCommissione(gennaio2018)

Lezioni apprese dalla valutazione intermedia di Orizzonte 2020



Sostenere le innovazioni pionieristiche



Moltiplicare l'impatto attraverso un approccio orientato alle missioni e il coinvolgimento dei cittadini



Intensificare la cooperazione internazionale



Rafforzare l'apertura



Razionalizzare il panorama dei finanziamenti

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Novità principali di Horizon Europe



Struttura del Programma



Horizon Europe: struttura preliminare*



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SPECIFIC OBJECTIVES



to develop, promote and advance scientific excellence, support the creation and diffusion of **high-quality new fundamental and applied knowledge**, **skills**, **technologies and solutions**, training and mobility of researchers, attract talent at all levels and contribute to full engagement of Union's talent pool in actions supported under this Programme; bottom up.



to generate knowledge, strengthen the impact of research and innovation in developing, supporting and implementing Union policies and support the access to and uptake of innovative solutions in European industry, notably in SMEs, and society to address global challenges, including climate change and the Sustainable Development Goals; top down.



SPECIFIC OBJECTIVES



To foster all forms of innovation, facilitate technological development, demonstration and knowledge and technology transfer, strengthen deployment and exploitation of innovative solutions; bottom up

Q Pillar 1 Excellent Science	Giobel Challenges and European Industrial Competitiveness	Pillar 3 Innovative Europe
European Research Council	Health Culture, Creativity and Inclusive Society	European Innovation Council
Marie Skłodowska-Curie Actions	Civil Security for Society Digital, Industry and Space Civil Security for Society Climate, Energy and Mobility	European innovation ecosystems
Research Infrastructures	 Food, Bioeconomy, Natural Resources, Agriculture and Environment 	European Institute of Innovation and Technology
	Joint Research Centre	
Widening Particip:	tion and Strengthening the Europe	an Research Area
Widening participation and spre	ading excellence Reforming and En	hancing the European R&I system

To optimise the Programme's delivery for strengthening and increasing the impact and attractiveness of the European Research Area, to foster the excellence-based participations from all Member States, including low R&I performing Member States, in Horizon Europe and to facilitate collaborative links in European research and innovation. Top down



PILASTRO 1

ECCELLENZA SCIENTIFICA

ERC

European Research Council

Ricerca di frontiera effettuata dai migliori ricercatori e dai loro gruppi

MSCA

Marie Skłodowska-Curie Actions Mobilità e formazione per fornire nuove conoscenze e competenze ai ricercatori

Research Infrastructure

Infrastrutture di ricerca di livello mondiale integrate e interconnesse

ECCELLENZA SCIENTIFICA:

rafforzare ed estendere l'eccellenza della base scientifica dell'Unione

European Research Council	Azioni Marie Skłodowska- Curie	
Ricerca di frontiera effettuata dai migliori ricercatori e dai loro gruppi	Mobilità e formazione per fornire nuove conoscenze e competenze ai ricercatori	Infrastrutture di ricerca di livello mondiale integrate e interconnesse
16,8 miliardi di EUR (p. correnti)	6,9 miliardi di EUR (p. correnti)	2,5 miliardi di EUR (p. correnti)



MISSION

- The ERC's mission is to encourage the highest quality research in Europe through competitive funding and to support investigator-driven <u>frontier research</u> across all fields, on the basis of scientific excellence.
- The aim here is to recognise the best ideas, and confer status and visibility on the best brains in Europe, while also attracting talent from abroad.

OBJECTIVES

- to provide attractive, long-term funding to support excellent investigators and their research teams to pursue ground-breaking, high-gain/ high-risk research.
- Scientific excellence is the sole criterion
- Applications can be made in any field of research

ERC Grant Schemes



European Research Council Established by the European Commission



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European Horizon 2020 European Union funding for Research & Innovation

Passaggio a Horizon Europe

- Continuità delle regole, degli obiettivi e delle procedure ERC
- I primi bandi possono essere pubblicati solo dopo l'adozione del bilancio 2021-2027 dell'UE e del regolamento di Horizon Europe
- Apertura dei primi bandi a gennaio 2021, sospensione del Synergy (?)
- I periodi di ammissibilità per StG e CoG invariati (2-7, 7-12 dal 1° gennaio 2021)
- La Commissione europea sta preparando una serie di aspetti procedurali riguardanti tutto Horizon Europe, sulla base della bozza di regolamento di Horizon Europe che riguarda anche le regole di partecipazione
- Aspetti da finalizzare: il nuovo Model Grant Agreement, modalità IT di presentazione delle proposte, templates. Questi aspetti avranno un impatto marginale sul WP ERC.



ECCELLENZA SCIENTIFICA:

rafforzare ed estendere l'eccellenza della base scientifica dell'Unione

	Azioni Marie Skłodowska- Curie	Infrastrutture di ricerca
Ricerca di frontiera effettuata dai migliori ricercatori e dai loro gruppi	Mobilità e formazione per fornire nuove conoscenze e competenze ai ricercatori	Infrastrutture di ricerca di livello mondiale integrate e interconnesse
16,8 miliardi di EUR (p. correnti)	6,9 miliardi di EUR (p. correnti)	2,5 miliardi di EUR (p. correnti)



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MSCA key features

- Support the mobility, training and career development of researchers from all over the world through excellent doctoral programmes, postdoc fellowships and collaborative projects
- Participation of non-academic sector strongly
- encouraged, especially industry and SMEs
- **T**For researchers at every stage of their career
- **Coverage for all domains of research (bottom-up approach)**
- Promotion of attractive working and employment
- subscription conditions (financing rate of up to 100%)

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Objective

MSCA Doctoral Networks

to train creative, entrepreneurial, innovative and resilient doctoral candidates, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit

MSCA Postdoctoral Fellowships

to enhance the creative and innovative potential of researchers holding a PhD, wishing to acquire new skills through advanced training, international, interdisciplinary and inter-sectoral mobility

MSCA Staff Exchanges

to promote innovative international, intersectoral and interdisciplinary collaboration in research and innovation through exchanging staff, and sharing knowledge and ideas at all stages of the innovation chain

MSCA and Citizens

through the European Researchers' Night, aims to bring research and researchers closer to the public at large, to increase awareness of research and innovation activities



The MSCA in Horizon Europe

5 areas of intervention:

- mobility of researchers
- **I**training of researchers
- strengthening human capital across the ERA (by spreading best practices across institutions and systems)
- **I**facilitating synergies
- promoting public outreach



Simplification and harmonisation

Single mobility rule

Researchers may not have resided or carried out their main activity (work, studies, etc.) in the country of their (main) host organisation for more than **12** months in the **36** months immediately before the applicable reference date.

Fine-tuned definitions

Doctoral candidates (instead of ESR) & postdoctoral researchers (instead of ER)

1/3 maximum duration of secondments

Harmonisation across the schemes

Alignment with the rest of Horizon Europe

Associated partners (instead of partner organisations) & affiliated entities (instead of entities with a capital or legal link)



Marie Sklodowska Curie Actions (MSCA)

- Come saranno le MSCA in Horizon Europe ?
- Che caratteristiche avranno ?



https://www.powtoon.com/s/f0upqOO5flW/1/m



SOLUZIONI ALLE SFIDE GLOBALI E COMPETIVITÀ INDUSTRIALE EUROPEA



- CL1 Health
- CL2 Culture, Creativity and Inclusive Societies
- CL3 Civil Security for Society
- CL4 Digital, Industry and Space
- CL5 Climate, Energy and Mobility
- **CL6** Food, Bioeconomy, Natural Resources, Agriculture and Environment

Il II pillar di Horizon EUROPE

- **I**incentrato sulle sfide globali e la competitività industriale,
- migliorare le problematiche della società e le tecnologie industriali con un approccio top -down
- Integrazione in cluster, con una serie di settori di intervento ciascuno per incentivare la collaborazione interdisciplinare, intersettoriale, trasversale e internazionale, ottenendo così un impatto più elevato e cogliendo meglio il potenziale di innovazione che spesso è maggiore i punti di intersezione di discipline e settori
- Il ruolo essenziale dell'industria nel conseguimento di tutti gli obiettivi del programma, favorito anche dagli investimenti nelle tecnologie abilitanti fondamentali del futuro.

APRE

CLUSTER 1. Health

 Salute lungo l'arco della vita
 Malattie non trasmissibili e rare
 Strumenti, tecnologie e soluzioni digitali per la salute e l'assistenza, compresa la medicina personalizzata

- Determinanti ambientali e sociali della salute
- Malattie infettive, comprese le malattie correlate alla povertà e trascurate

Sistemi sanitari

Improving and protecting the health of citizens at all ages, by developing innovative solutions to prevent, diagnose, monitor, treat and cure diseases; mitigating health risks, protecting populations and promoting good health; making public health systems more cost-effective, equitable and sustainable; and supporting and enabling patients' participation and selfmanagement.



CLUSTER 2. Culture, creativity and inclusive society

Democrazia e governance
 Trasformazioni sociali ed economiche
 Cultura, patrimonio culturale e creatività

Strengthening European democratic values, including rule of law and fundamental rights, safeguarding our cultural heritage, and promoting socio-economic transformations that contribute to inclusion and growth,


CLUSTER 3. Civil security for society

Società in grado di far fronte alle calamità
 Protezione e sicurezza
 Cibersicurezza

This cluster has as its vision to support wider EU responses to security challenges i.e. to support 'a resilient and more stable Europe that protects' as well as for this purpose supporting a competitive *European civil security industry* sector. It will address the challenges arising from persistent security threats like terrorism and crime, including cybercrime, as well as natural and man-made disasters.

CLUSTER 4. Digital, Industry and Space

Tecnologie produttive Materiali avanzati Internet di prossima generazione Industrie circolari Spazio, compresa l'osservazione della terra Tecnologie abilitanti emergenti Tecnologie digitali fondamentali, comprese le tecnologie quantistiche Intelligenza artificiale e robotica Calcolo avanzato e Big Data Industria a basse emissioni di CO2 e pulita Tecnologie abilitanti emergenti

Reinforcing capacities and securing Europe's sovereignty in key enabling technologies for digitisation and production, and in space technology, to build a competitive, digital, low-carbon and circular *industry; ensure a sustainable* supply of raw materials; and provide the basis for advances and innovation in all global societal challenges.



<u>CLUSTER 5. Climate, Energy and</u> <u>Mobility</u>

- Scienza e soluzioni climatiche
- Sistemi energetici e reti
- d Comunità e città
- Competitività industriale nei trasporti Mobilità intelligente
- Approvvigionamento energetico
 Edifici e strutture industriali in transizione energetica
 Trasporti e mobilità puliti sicuri e
- Trasporti e mobilità puliti, sicuri e accessibili
- Immagazzinamento energetico

Fighting climate change by better understanding its causes, evolution, risks, impacts and opportunities, and by making the energy and transport sectors more climate and environment-friendly, more efficient and competitive, smarter, safer and more resilient



CLUSTER 6. Food, bioeconomy, natural resources, agriculture and environment

Osservazione ambientale
 Agricoltura, silvicoltura e zone rurali
 Sistemi circolari
 Sistemi alimentari

Biodiversità e risorse naturali
Mari, oceani e acque interne
Sistemi di innovazione biologici nell'UE
Bioeconomia

Protecting, restoring, sustainably managing and using natural and biological resources from land and sea to address food and nutrition security and the transition to a low carbon, resource efficient circular economy.



PILASTRO 3

INNOVAZIONI PIONIERISTICHE, ECOSISTEMI FAVOREVOLI ALL'INNOVAZIONE

EIC European Innovation Council

Sostenere innovazioni dal potenziale pionieristico e creatrici di mercato

European innovation ecosystems

Creare un legame con gli operatori dell'innovazione a livello regionale e nazionale

EIT

European Institute of Innovation and Technology

Riunire ricerca, istruzione e imprese attorno a un obiettivo per favorire innovazione

EIC Main Instruments

Pathfinder	 Open (Bottom Up: long-term vision; Concrete, novel and ambitious science-towards-technology breakthrough; High-risk/high-gain research approach and methodology) Challenges (Top Down: Digital, Health and Biotech, Energy and Environment)
Transition	 Open (Bottom Up: Key Pathways: Transition to innovation, to the market or to entrepreneurship) Challenges (Top Down: NA)
Accelerator	 Open (Bottom Up: To scale up high impact innovations with the potential to create new markets or disrupt existing ones) Challenges (Top Down: Digital, Medical, Green Deal)
Prizes	 1. EU Prize for Women Innovators; 2. The European Capital of Innovation Awards (iCapital); 3. The European Innovation Procurement Awards; 4. The Social Innovation Award



- Basic principle observed
- Technology concept formulated
- Experimental proof of concept
- Technology validated in lab
- Technology validated in relevant environment
- Technology demonstrated in relevant environment
- System prototype demonstration in operational env
- System complete and qualified
- Actual system proven in operational environment

Market uptake, deployment

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EIC Pathfinder (Open and Challenges)

EIC Transition (Open and Challenges)

> EIC Accelerator (Open and Challeges) (Grant)

> > EIC Accelerator (Equity)

The EIC Instruments

<u>EIC PATHFINDER – OPEN</u>

- Si baserà sull'esperienza del programma "Tecnologie emergenti e future" (TEF), finanziato nell'ambito del 7° PQ ed H2020 FET, compreso il programma di avvio dell'innovazione "FET Innovation Launchpad", nonché la fase 1 dello strumento per le PMI di Orizzonte 2020
- Supporta progetti di *ricerca ad alto rischio*
- Mira a esplorare nuovi paradigmi scientifici e tecnologici, idee visionarie, concetti e scoperte inaspettate
- **R**isulta fortemente improntato alle *soluzioni tecnologiche*

EIC Pathfinder for Advanced Research

Sarà attuato principalmente attraverso una procedura di gara aperta permanente, basata su un approccio "bottom-up" nel *Pathfinder Open*, ma vedrà anche il supporto di obiettivi strategici essenziali, attraverso le *Pathfinder Challenges*

- Portafogli di progetti selezionati dall' EIC Programme Managers saranno ulteriormente sviluppati e migliorati, attraverso sovvenzioni complementari per integrare o ampliare l'ambito delle azioni precedenti e in corso
- Prevederà strumenti mono- e multi- beneficiario, aperti a tutti i tipi di innovatori, dai singoli cittadini alle università, dalle organizzazioni di ricerca alle imprese, in particolare start-up e PMI, e dai singoli beneficiari ai consorzi multidisciplinari.

Struttura del Programma





DOTAZIONE FINANZIARIA

95,5 miliardi € per 7 anni

Proposal/Istitution	Proposal I	EC Juncker	Position of	CEU Michel	Proposal EC v	von der Leyen	Positior	n of CEU	Agreemen	t PE –CEU*
Date	June	2018	Februa	ry 2020	May	2020	29-s	et-20	10-n	ov-20
Price (Current/costant 2018)	current	2018	current	2018	current	2018	current	2018	current	2018
Horizon Europe (MFF)	94,1	83,5	91,2	80,9	91,2	80,9	85,5	75,9	85,5	75,9
Horizon Europe (NGE)			0	0	14,6	13,5	5,4	5	5,4	5
Horizon Europe (Top -up)			0	0					4,5	4
Horizon Europe (TOT)	94,1	83,5	91,2	80,9	105,8	94,4	90,9	80,9	95,5	34,9

Le cifre in tabella sono riportate in miliardi di euro.

NB. Attenzione alla differenza tra prezzi correnti e prezzi costanti al 2018. EC= Commissione Europea; CEU= Consiglio dell' Unione Europea; PE= Parlamento Europeo





	HE (MFF)	NGEU	TOTALE		
Тета	Miliardi €	Miliardi €	Miliardi €	% sul totale	
Pillar I	25,013	0,000	25,013	26,19%	
ERC	16,004	0,000	16,004	16,75%	
MSCA	6,603	0,000	6,603	6,91%	
Reasearch Infrastructures	2,406	0,000	2,406	2,52%	
Pillar II	49,458	4,059	53,517	56,03%	
Clusters	47,488	4,059	51,547	53,96%	
1. Health	6,893	1,353	8,246	8,63%	
2. Culture Creativity Inclusive Society	2,281	0,000	2,281	2,39%	
3. Civil Security for Society	1,597	0,000	1,597	1,67%	
4. Digital, Industry and Space	13,995	1,353	15,348	16,07%	
5. Cimate, Energy and Mobility	13,770	1,353	15,123	15,83%	
6. Food, Bioeconomy, Natural Resources, Agriculture, Environment	8,952	0,000	8,952	9,37%	
JRC	1,970	0,000	1,970	2,06%	
Pillar III	12,246	1,353	13,599	14,24%	
EIC	8,752	1,353	10,105	10,58%	
Innovation Ecosystems	0,528	0,000	0,528	0,55%	
EIT	2,966	0,000	2,966	3,11%	
Strengthening ERA	3,393	0,000	3,393	3,55%	
Widening participation spreading exc.	2,955	0,000	2,955	3,09%	
EU R&I System	0,438	0,000	0,438	0,46%	
TOTALE	90,110	5,412	95,522	100,00%	



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Budget - Distribuzione





Struttura del Programma





Definizione di documenti strategici

Pianificazione strategica: il processo che – partendo dal testo legislativo «consolidato» – porterà alla definizione del piano strategico e delle priorità di ricerca e innovazione dell'Unione per gli anni dal 2021 al 2024, preparando i contenuti dei programmi di lavoro e dei bandi di finanziamento del primo quadriennio del prossimo programma.

Il piano strategico definitivo dovrà identificare quattro elementi principali:

le priorità (orientamenti strategici) per il sostegno alla R&I;

✤le missioni;

✤i partenariati europei co-programmati (co-programmed) e co-finanziati (co-funded);

✤le aree per la cooperazione internazionale.

Il documento conterrà inoltre delle linee guida su una serie di aspetti più specifici, tra cui: l'equilibrio tra ricerca e innovazione; l'integrazione delle scienze umane e sociali nelle attività del programma; il ruolo delle tecnologie abilitanti (KET); le priorità per la diffusione e lo sfruttamento dei risultati.

Strategia di implementazione: definirà come il programma verrà implementato nella pratica

Definizione di documenti strategici

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Strategia di implementazione: definirà come il programma verrà implementato nella pratica

COSA ASPETTARSI DAL PIANO STRATEGICO?

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Impact Logic

olan*	EC Policy PriorityBased on the Political Guidelines for the European Commission 2019- 2024 with a focus on three key priorities: Green Deal, Europe fit for the Digital Age, and Economy that Works for People		General policy level
ategic I	Key Strategic Orientation	Set of strategic objectives within the EC policy priorities where R&I investments are expected to make a difference	Programme level
Str	Expected Impacts	Wider effects on society (including the environment), the economy and science, enabled by the outcomes of R&I outcomes (long-term)	Cluster level
Work Programme	Packages of actions around which each Work Programme part within Pillar II will be designed. Destinations are a series of coherent packages aimed at contributing to the expected impacts set out in the Strategic Plan. The Destinations will provide the policy narrative for the calls and actions included in the WP. In the WP, the text of the Destination should reflect the expected impact as set out in the Strategic Plan.		er WP Level
	Call for proposal	Each Destination will be implemented by means of calls for proposals. Under Horizon Europe, we need to align our definition of a 'call' with the Financial Regulation and with the common approach across all MFF programmes.	Cluste

*This first Horizon Europe Strategic Plan defines the strategic orientations for our research and innovation investments over the period 2021-2024 and acts as a compass to stay on course with the political priorities of the Commission: a climate-neutral and green Europe, fit for the digital age, where the economy works for the people. The aim is to ensure an effective interface between EU policy priorities and programme activities.

DESTINATION

Under each Destination, before the texts of the topics themselves there is an important introductory part that explains the relevant policy objectives, that specifies any elements to be taken account of for all the topics of the Destination -including international cooperation- and that identifies specific targeted impacts. Proposals should set out a credible pathway to contributing to those specific targeted impacts.



<u>Quadro logico</u>



Key strategic orientations for research and innovation

- A. Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains to accelerate and steer the digital and green transitions through human-centred technologies and innovations;
- **B.** Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources to ensure food security and a clean and healthy environment;
- **C. Making Europe the first digitally enabled circular, climate-neutral and sustainable economy** through the transformation of its mobility, energy, construction and production systems;
- **D.** Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high-quality health care, and empowering all citizens to act in the green and digital transitions.



KS	0	IMPACT	AREAS	CLUSTERS
Α.	Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains to accelerate and steer the digital and green transitions through human-centred technologies and innovations	 A come concernent Indust emerge for performed Secure techn High concernent 	apetitive and secure data- omy trial leadership in key and ging technologies that work cople e and cybersecure digital ology quality digital services for all	Cluster 1 (Health) Cluster 2 (Culture, Creativity and Inclusive Society) Cluster 3 (Civil security for society) Cluster 4 (Digital, Industry and Space) Cluster 5 (Climate, Energy and Mobility)
Β.	Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources to ensure food security and a clean and healthy environment;	 Enhar biodiv Clean soil Sustai farm t 	ncing ecosystems and versity on land and in waters and healthy air, water and nable food systems from to fork on land and sea	Cluster 1 (Health) Cluster 4 (Digital, Industry and Space) Cluster 5 (Climate, Energy and Mobility) Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment)



KSO	IMPACT AREAS	CLUSTERS	
C. Making Europe the first digitally enabled circular, climate-neutral and sustainable economy through the transformation of its mobility, energy, construction and production systems	 Climate change mitigation and adaptation Affordable and clean energy Smart and sustainable transport Circular and clean economy 	Cluster 1 (Health) Cluster 4 (Digital, Industry and Space) Cluster 5 (Climate, Energy and Mobility) Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment)	
D. Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high- quality health care, and empowering all citizens to act in the green and digital transitions.	 A resilient EU prepared for emerging threats A secure, open and democratic EU society Good health and high-quality accessible healthcare Inclusive growth and new job opportunities 	Cluster 1 (Health) Cluster 2 (Culture, Creativity and Inclusive Society Cluster 3 (Civil security for society) Cluster 4 (Digital, Industry and Space) Cluster 5 (Climate, Energy and Mobility) Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment)	



Strategic Plan in numeri

4 key strategic orientations supportati da 15 impact areas

6 Cluster – Ciascun Cluster ha un cluster-specific impact summaries e 6 impatti attesi

Ciascun impatto atteso genera una destinations = **36** destinations

Ogni destination ha un insieme di topic

Ogni topic ha un Expected Outcome



Mission & Partnership

MISSIONI

Soil he food



and smart cities

oceans, seas, and inland waters

to climate change, ocietal ion

Le Mission includono un portafoglio di azioni - progetti di ricerca, misure di policy o iniziative legislative - dirette a raggiungere, entro un arco di tempo prestabilito, un obiettivo audace, misurabile e rilevante per la società



Players involved



MEMBRI MISSION BOARD

Missione Area	Mission Board (IT nazinalità)
Climate	Jaroslav Mysiak (CMCC)
Cancer - CHAIR	Walter Ricciardi (Cattolica)
Ocean	Maria Cristina Pedicchio
Smart Cities	Anna Lisa Boni (Eurocities)
Soil	Catia Bastioli (Novamont)

Board Members https://ec.europa.eu/info/sit es/info/files/research and i nnovation/strategy_on_rese arch and innovation/docum ents/ec_rtd_membersmission-boards_072019.pdf

Assembly Members https://ec.europa.eu/info/sit es/info/files/research_and_i nnovation/groups/ec_rtd_m embers-missionassemblies.pdf



MISSIONS

Mission means a portfolio of excellence-based and impact-driven R&I actions across disciplines and sectors, intended to:

- achieve, within a set timeframe, a measurable goal that could not be achieved through individual actions
- have impact on society and policy-making through science and technology
- be *relevant for* a significant part of the European population and a wide range of *European citizens*



MISSIONS

What is the difference between a Mission Area and a mission?



They are broad in nature

The Mission should be targeted, with titles which give a clear sense of the destination.



PROPOSTA MISSIONS

Sono state pubblicate lo scorso 25 giugno 2020 le proposte di missioni che verranno sottoposte a consultazione nei prossimi mesi.

high-level independent experts proposed potential EU missions: bold goals to be achieved within a set timeframe aimed at tackling some of our greatest global challenges.

Mariya Gabriel, Commissioner for Innovation, Research, Culture, Education and Youth said:

"Missions will be crucial for the transformation of Europe into a greener, healthier, more resilient continent for all. Since September last year, the five Mission Boards have been working closely together with citizens to shape these ambitious missions. I am looking forward to hearing fellow Europeans' views on these proposals, to ensure they capture their vision and meet their expectations."



Mission: Conquering Cancer: Mission Possible



Conquering Cancer: Mission Possible

Targets by 2030: more than 3 million lives saved, living longer and better: achieve a thorough understanding of cancer, prevent what is preventable, optimise diagnosis and treatment, support the quality of life of all people exposed to cancer, and ensure equitable access to the above across Europe.



<u>Mission: A Climate Resilient Europe - Prepare Europe for climate</u> <u>disruptions and accelerate the transformation to a climate resilient and</u> <u>just Europe by 2030</u>



A Climate Resilient Europe - Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and just Europe by 2030

Targets by 2030: prepare Europe to deal with climate disruptions, accelerate the transition to a healthy and prosperous future within safe planetary boundaries, and scale up solutions for resilience that will trigger transformations in society.



Mission: Mission Starfish 2030: Restore our Ocean and

Waters



Mission Starfish 2030: Restore our Ocean and Waters

Targets by 2030: filling the knowledge and emotional gap, regenerating marine and freshwater ecosystems, zero pollution, decarbonising the blue economy, and revamping governance. These mutually supportive objectives will enable the regeneration of the water cycle as a whole


100 Climate-neutral Cities by 2030 – by and for the Citizens



<u>100 Climate-Neutral Cities by 2030 -</u> by and for the citizens

Targets by 2030: support, promote and showcase 100 European cities in their systemic transformation to climate neutrality by 2030 and turn these cities into innovation hubs for all cities, benefitting quality of life and sustainability in Europe.



Mission: Caring for soil is caring for life



Caring for Soil is Caring for Life

Targets by 2030: at least 75% of soils in the EU are healthy for food, people, nature and climate. The proposed mission combines research and innovation, education and training, investments and the demonstration of good practices using "Living labs" (experiments and innovation in a laboratory on the ground) and "Lighthouses" (places to showcase good practices).



MISSIONS IN PILLS

Budget

- There is **no fixed budget** for each mission
- During the first three years of the programme, a maximum of 10% of the annual budget of Pillar II shall be programmed through specific calls for implementing the missions
- For the remaining part of the programme, and only after a positive assessment of the mission selection and management process, this percentage may be increased



MISSIONS IN PILLS

Is it a new instruments?

- Each mission may involve one or more of the following:
 - Launch specific calls in Horizon Europe and other programmes. These calls will encourage creativity and bottom-up working from the proposer;
 - Identify specific actions to change/ improve policy context, which are critical for missions success, such as framework conditions;
 - Make use of the appropriate partnerships;
 - Mobilise structural funds to the alignment to mission goals;
 - Establish the appropriate links with national programmes;
 - Influence the international agenda, combining efforts with similar third country programmes.

PARTENARIATI EUROPEI NEL PIANO STRATEGICO 2021-2024

HEALTH

DIGITAL,

INDUSTRY

AND SPACE

CLIMATE, ENERGY AND MOBILITY FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT PILLAR III AND CROSS-PILLAR

Partenariati europei (European Partnerships) sono iniziative di collaborazione tra l'Unione europea e partner pubblici o privati per affrontare le sfide globali e la modernizzazione industriale attraverso sforzi concertati di ricerca e innovazione.



Nuovo approccio ai PARTENARIATI europei

Nuova generazione di partenariati basati su obiettivi e più ambiziosi, a sostegno di obiettivi strategici concordati dell'UE

Caratteristiche fondamentali

- Architettura e strumenti semplici
- Approccio coerente in tutto il ciclo di vita

Orientamento strategico

Co-programmati

Sulla base di protocolli d'intesa o accordi contrattuali; attuato in modo indipendente dai partner e da Horizon Europe

Co-finanziati

Sulla base di un programma congiunto concordato e attuato dai partner; impegno dei partner ad apportare contributi finanziari e in natura

Istituzionalizzati

Sulla base di una prospettiva a lungo termine e di un elevato livello di integrazione; partenariati a norma degli articoli 185/187 del TFUE e del regolamento dell'EIT con il sostegno di Horizon Europe

- CO-PROGRAMMED
- CO-FUNDED
- INSTITUTIONALISED

80



Carlos Moedas Brussels, September 2018

Starting from here

• ...the PPP, the JTI, the ETP, the JPI, the EraNet, the FET, the KIC.....my God, stop it. I get confused, we have to simplify this. ...let's talk about European Public Private Partnerships.

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APRE

OLTRE 120 partenariati attivi in HORIZON in 2020

EUROPEAN PARTNERSHIP DEFINITION:

European Partnerships provide a framework for programme level collaboration between the Union and public or private partners.

European Partnerships are initiatives where the **EU together with private** and/or public partners <u>commit to jointly support</u> the development and implementation of a programme of research and innovation activities. The partners could represent industry, universities, research organisations, bodies with a public service remit at local, regional, national or international level or civil society organisations including foundations and NGOs.



Da H2020 a Horizon Europe



Partenariati Europei Co-programmati

"Divisione del lavoro"

- Azioni simili in H2020: Partenariati Pubblico-Privato Contrattuali (cPPP)
- Forma legale: Accordo contrattuale / MoU (firmato tra i rappresentanti dei partner e la Commissione)
- Implementazione:
 - > Il contributo dell'Unione è attuato attraverso il programma di lavoro di Horizon Europe
 - I partner attuano i loro impegni e contribuiscono in modo indipendente
- Le attività e i contributi devono essere concordati nel piano di lavoro annuale (per assicurarsi che rientrino nell'ambito del partenariato)
 - <u>Commissione europea</u>: call topics per implementare le varie azioni (R&I, Innovation actions, CSA, prizes)
 - > <u>Partners</u>: le proprie attività e i propri investimenti
- Le attività di back-office realizzate dalle associazioni hanno un ruolo di supporto importante



Partenariati Europei Co-finanziati

"Programma integrato con attuazione distribuita"

- Azioni simili in H2020: : European Joint Programme and ERA-NET Cofund
- Forma legale: Grant Agreement (programme co-fund action) firmato tra il consorzio beneficiario e la Commissione (gestito d un Agenzia Esecutiva)
- Implementazione: Gli SM/SA elaborano un programma comune da attuare sotto la loro responsabilità. Esso riunisce i finanziamenti/risorse nazionali con il cofinanziamento dell'Unione.
- Tasso di finanziamento al 30% (fino al 50% in casi specific)
- Calls ed evaluazioni sono organizate al livello centrale, mentre I beneficiari dei progetti selezionati vengono finanziati al livello nazionale (sulla base di regole selezionate dai partners)
- E importante definire ex-ante:
 - > Tipo di partner necessario per formare il partenariato (consorzio)
 - Le parti interessate che definiscono le priorità Il ruolo dei ministeri!
 - > Stakeholder e gruppi mirati dalle attività del partenariato

Partenariati Europei Istituzionalizati

"Programma integrato con implementazione centralizzata"

- Base legale: Articolo 185 e Articolo 187 del TFEU
 - Richiedono la preparazione e l'adozione di una proposta legale della Commissione (incl. ex-ante impact assessment)
 - Una Decisione del Parliamento Europe e del Consiglio (Art 185) / Regolamento del Consiglio (Art 187, EIT)
- L'implementazione di questi partenariati e assegnata ad organi dell'Unione creati ad hoc (Joint Undertakings, EIT KIC)
- Applicano le regole per la partecipazione di Horizon Europe
- Horizon Europe stabilisce requisiti elevati per questo tipo di partenariato, ad es:
 - Attuati soltanto nel caso in cui le altre forme di partenariato non conseguirebbero gli obiettivi o non genererebbero gli impatti necessari previsti e se giustificato da una prospettiva a lungo termine e da un grado elevato di integrazione
 - Gestione centralizzata dei contributi finanziari (salvo in casi debitamente giustificati)
 - Art. 185: Partecipazione obbligatoria di almeno 40% dei Stati Membri e Associati
 - Impone un contributo finanziaro dai partner dell'Unione

Co - programmed

• Division of labour

Co- Funded

• Integrated programme with distributed implementation

Institutionalised

• Integrated programme with centralised implementation





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Portafoglio di Partenariati Europei (49)

HEALTH 1. EU-Africa Global

- 2. Health Innovative Health Initiative
 - 3. Chemicals Risk Assessment
- 4. Fostering an ERA for Health research
- 5. Transforming Health and Care Systems
 - 6. Personalised Medicine
 - 7. Rare Diseases
 - 8. One Health AMR

CLIMATE, ENERGY AND MOBILITY

Transforming Europe's rail system
 Integrated Air Traffic Management
 Clean Aviation
 Clean Hydrogen

- 5. Built environment and construction
- 6. Towards zero-emission road transport
- 7. Mobility and Safety for Automated Road Transport

8. Batteries 9. Clean Energy Transition 10.Sustainable, Smart and Inclusive Cities and Communities

11.Smart and zero-emission waterborne transport

DIGITAL, INDUSTRY AND SPACE

- **1. High Performance Computing**
 - 2. Key Digital Technologies
- 3. Smart Networks and Services
 - 4. AI, data and robotics
 - 5. Photonics Europe

6. Clean Steel - Low Carbon Steelmaking
7. European Metrology
8. Made in Europe
9.Carbon Neutral and Circular Industry
10.Global competitive space systems

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

- 1. Accelerating farming systems transition
- 2. Animal health: Fighting infectious diseases

3. Agriculture of data

- 4. Safe and Sustainable Food System for People, Planet & Climate
- 5. Rescuing biodiversity to safeguard life on Earth
- 6. A climate neutral, sustainable and productive Blue Economy
 - 7. Circular bio-based Europe
 - 8. Water4All: Water security for the planet

PILLAR IIIAND CROSS-PILLAR

- 1. EIT Climate KIC
 - 2. EIT Health
- 3. EIT Manufacturing

4. EIT Food

- 5. EIT InnoEnergy
- 6. EIT Raw Materials
 - 7. EIT Digital
- 8. EIT Urban Mobility

9.EIT Cultural and Creative Industries 10.Innovative SMEs

11.European Open Science Cloud (EOSC)

Cluster allocation tbc Pandemic Preparedness and societal resilience

STRATEGIC PLANNING \rightarrow STRATEGIC PLAN

A seguito dell'accordo politico del testo legislativo ad aprile 2019, la Commissione ha avviato lo Strategic Planning process. Il risultato atteso è la definizione del cd. multiannual Strategic Plan (implementing act, in accordo con art.12 (4)) per preparare i contenuti dei Programmi di Lavoro e delle call per i primi 4 anni di Horizon Europe (2021-24)

In particolare, lo strategic plan i conterrà seguenti elementi:

- **a.** Key strategic orientations [KSOs] for R&I support, including a description of expected impacts, cross cluster issues and intervention areas covered.
- **b.** Identificazione European Partnerships according to Article 8(1)(a and b) of the [FP Regulation].
- **c.** Identificazione Missions according to Article 5 of the Specific Programme and Article 7 and Annex Va of the Regulation establishing Horizon Europe.



COOPERAZIONE INTERNAZIONALE

- **Collaborative research and innovation initiatives**, including targeted initiatives and projects with partners from key third countries and regions in strategic areas of mutual benefit under all clusters, including the Missions and the European Partnerships.
- International mobility and cooperation in frontier research and support to brain circulation and the internationalisation of EU innovative companies, in particular through activities in Pillars I and III.
- **EU participation and leadership in multilateral alliances**, such as those related to tackling climate change, sustainable food and nutrition security, biodiversity decline, environmental degradation, global health issues, e.g. antimicrobial resistance, infectious diseases, and other threats to global health, gaining access to and sharing research and observation data, and taking account of international collaboration programmes between European countries and third countries.
- **Policy dialogues with third countries and regions** aiming at reinforcing at a strategic level the cooperation in research and innovation, including by the promotion of open science policies and the development of commonly accepted approaches to research ethics and integrity, as well as safety and quality standards and the life-cycle assessment of materials, the regulatory context of manufacturing, digital technologies, and consumer products and services.



ASPETTI TRASVERSALI

A number of key specific issues will be taken into account in the implementation of Horizon Europe 2021-2024, thus creating a sound foundation for the pursuit of the key strategic orientations



ASPETTI TRASVERSALI

Gender equality and inclusiveness*	Activities will aim at eliminating gender, inequality and intersecting socio-economic inequalities throughout research and innovation systems, including by addressing unconscious bias and systemic structural barriers, and the integration of the gender dimension will be a requirement by default in research and innovation content across the whole programme,
 Social Sciences and Humanities 	SSH are a key constituent of research and innovation, especially regarding the twin green and - digital transitions. This will be reflected by flagging specific topics and/or requesting an assessment of their societal impact
•Ethics and integrity	Research ethics and integrity are a prerequisite for research excellence and a critical factor in achieving socially relevant impact. Horizon Europe will address the ethical dimension of new technologies and will enable a better understanding of the different dimensions of research integrity, including behavioural aspects. For the broad acceptance and support of science and research, a comprehensive societal dialogue is indispensable.



Gender Equality Plan*

PUBLIC DOCUMENT	DEDICATED RESOURCES	DATA COLLECTION AND MONITORING	TRAINING & CAPACITY BUILDING
formal document signed by the top management	 Earmarked funding could be available for staff positions such as "Equality Officers" or "Gender Equality Teams" Organisations may reserve working hours of existing staff (academic, management, HR) for 	 sex/gender- disaggregated data collection across all staff categories 	 e.g. tackling unconscious gender bias among staff and decision-makers
published on the institution's website and disseminated widely within the institution		 Annual reporting of gender imbalances across job categories 	 information and dissemination material, workshops,
		 & leadership positions comprehensive evaluation approach 	 or working groups dedicated to specific topics.

equality work



Recommended areas to be covered by GEPs

work-life balance and organisational culture

• **Examples**:Parental leave policies,flexible work-time arrangements.

gender balance in leadership and decision-making

• **Examples:** Introducing gender quotas for evaluation panels or decision making bodies.

Bgender equality in recruitment and career progression

• **Examples:** Unconscious bias training for HR managers, inclusive language for job vacancies, fair evaluation for employees.

Iintegration of the gender dimension into research and teaching content

• **Example:** Get inspiration from the case studies and methods developed by the EC "Gendered innovations" Expert Group

measures against gender-based violence including sexual harassment

• **Example:**Having in place a code of conduct or an intervention protocol in case of complaints.



ASPETTI TRASVERSALI

Open Science	Open Science is becoming the modus operandi for carrying out R&I by sharing knowledge, data and tools as	
practices	Science, following the principle "as open as possible, as closed as necessary", increase the quality and impact of R&I and lead to greater responsiveness to societal challenges.	

 Dissemination and Exploitation 	Horizon Europe will support dedicated activities to enhance dissemination, use and valorisation of research and innovation results, to critically contribute to the four key strategic orientations and increase impact on society at large. New discoveries and knowledge generated by Horizon Europe will be integrated in higher education and training activities, contributing to the education of the next generation of researchers and enabling young graduates to bring state-of-the-art knowledge to workplaces across society, notably through mobility between science, industry and society.
 Key Enabling Technologies (KETs) 	KETs are crucial for Europe's competitiveness in strategic value chains. Developing and mastering KETs can contribute towards giving EU industries the competitive edge they need for industrial leadership in global markets and promise breakthroughs to solving global challenges and achieving a circular, climate-neutral and sustainable EU economy. All the clusters will develop and apply key enabling and emerging technologies as part of the common strategy to promote the EU's industrial and social leadership.



ASPETTI TRASVERSALI

Social Innovation

Social innovations help answer societal and environmental challenges, connecting society with innovation throughout the innovation life cycle in many fields (health, environmental, economic, digital, cultural, sovereignty, and democratic).

Horizon Europe will support social innovations across the four key strategic orientations by empowering citizens, consumers, social partners, communities and businesses to solve the problems that they face, creating new value, ushering in novel social practices, in particular in the areas of climate, environmental protection, habitat, energy and mobility.

•EU Taxonomy

The adoption of the EU Taxonomy Regulation in June 2020 creates the world's first-ever "green list" – a clear and common classification system defining which economic activities can be considered as sustainable – a common language that investors, industry and researchers can use to target projects and economic activities that have a substantial positive impact on the environment. The EU Taxonomy can also be used to ensure the 'do no harm' fundamental principle of public recovery investments related to the European Green Deal. More generally the EU Taxonomy should guide all investments in Europe's recovery to ensure they are in line with our long-term ambitions.





Scienza aperta

Migliore diffusione e sfruttamento dei risultati di R&I e sostegno all'impegno attivo della società

Accesso aperto obbligatorio alle pubblicazioni: i beneficiari fanno sì che essi stessi o gli autori conservino sufficienti diritti di proprietà intellettuale per conformarsi ai requisiti dell'acceso aperto

Accesso aperto ai dati della ricerca: secondo il principio "il più aperto possibile, chiuso il tanto necessario"; piano obbligatorio di gestione dei dati FAIR (reperibili, accessibili, interoperabili, riutilizzabili) e libero accesso ai dati della ricerca

- Sostegno alle competenze dei ricercatori e sistemi di ricompensa che promuovono la scienza aperta
- Utilizzo del cloud europeo per la scienza aperta -EOSC

ORE: Open Research Europe,

the European Commission open access publishing service



article are linked and

independently citable.

APRE

https://open-research-europe.ec.europa.eu/

Novità implementative

CHI PUÒ PARTECIPARE AI BANDI HORIZON EUROPE

CHI PUÒ PARTECIPARE AI BANDI HORIZON EUROPE ?

PERSONE FISICHE

Ο

PERSONE GIURIDICHE*

* È ammessa anche la partecipazione di soggetti sprovvisti di personalità giuridica in accordo con l'articolo 197(2)(c) del Regolamento Finanziario dell'UE

- RICERCATORI SINGOLI
- PMI
- INDUSTRIE
- CENTRI DI RICERCA PUBBLICI E PRIVATI
- UNIVERSITÀ
- PUBBLICHE AMMINISTRAZIONI
- ORGANIZZAZIONI DELLA SOCIETÀ CIVILE
- ALTRO

CHI PUÒ PARTECIPARE AI BANDI HORIZON EUROPE ?

CONSORZI

Regola generale:

almeno 3 enti indipendenti stabiliti in 3 diversi Stati membri o associati

INDIVIDUI / SINGOLI

ENTI Se previsto nei bandi:

ERC - European Research Council, MSCA - Marie Sklodowska Curie actions,

EIC - European Innovation Council

Novità implementative



Principali novità MGA Costo del personale

- > Due possibilità: actual cost o unit cost (costo medio)
- > Costo giornaliero e non più costo orario
- > Una sola opzione per il **tempo produttivo** (215 giorni)
- > Un solo metodo per il calcolo del costo (su base annuale)
- Non più necessario far riferimento all'ultimo anno finanziario concluso
- > Niente più timesheet! (sostituiti da una dichiarazione mensile)

Principali novità MGA Terze parti





T Viene meno il termine linked third party \rightarrow Affiliated entities



- Nel caso dell'in kind contribution non sarà più necessario distinguere se è «not used on the beneficiary premises» ai fini del calcolo dei costi indiretti.
 - Non esisteranno articoli specifici nel MGA



Model Grant Agreement

>Utilizzo di forme di costo semplificate

Tre tipologie:

- Unit cost
- Flat rate
- Lump sum
- Ridurre il rischio di errore

Lump sum

Ridurre la documentazione finanziaria
 Eliminare l'audit finanziario





<u>Utilizzo di forme di costo semplificate</u> <u>Lump sum</u>

Principali novità:

 Differente organizzazione della struttura del progetto e della ripartizione delle attività tra i partner

- Cambiamento di focus: non più il management finanziario
 l'implementazione tecnico scientifica
- No report finanziario ed audit
- Pagamento solo al completamento del WP



<u>Utilizzo di forme di costo semplificate</u> <u>Lump sum</u>

Obiettivo in Horizon Europe: utilizzo più diffuso del lump sum



Analisi e valutazione dell'intero ciclo di vita dei pilot lanciati in H2020. Al momento la visione è parziale.



Analisi completa sul lump sum relativamente a tutto il ciclo di vita del progetto



Sviluppo di linee guida a supporto




Horizon Europe - Elementi di continuità



Elementi di continuità con Horizon 2020

Funding rates



APRE

Elementi di continuità con Horizon 2020



APRE

PRONTI A PARTIRE

Registrati a APRE*mailing* per non perdere aggiornamenti e opportunità

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#HorizonEU



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GIORNATE HORIZON EUROPE

GUIDA A HORIZON EUROPE

APRE BRIEF

AGENDA HORIZON EUROPE

Info, aggiornamenti e materiali sul nuovo Programma Quadro

>>

>>

>>

>

>>

Eventi sul Programma Quadro e le sue dimensioni

Passo, passo dentro il nuovo Programma Quadro

l factsheet sui temi e gli aspetti salienti di Horizon Europe

I principali appuntamenti nazionali ed europei sul Programma Quadro

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#HorizonEU

www.apre.it



TEMPLATE E IMPACT PATHWAY



l punti della giornata

+

0

- Parte A
- Parte B
 - Excellence
 - Impact
 - Implementation
- Valutazione



Admissibility

Same general admissibility conditions

- Applications must be submitted before the call deadline, electronically via the Funding & Tenders Portal
- Applications must be **complete**, **readable**, **accessible** and **printable**, and include a **plan for the exploitation and dissemination of results**, unless provided otherwise in the specific call conditions.

Proposal page limit

Substantial reduction in maximum length:

- RIAs and IAs type of actions: limit for a full application is **45 pages**
- CSAs: limit is **30 pages**
- First stage proposals: limit is **10 pages**
- EIC Pathfinder: limit is **17 pages**
- Exceptions, if any, would be specified in the call text.





Consortium composition (collaborative projects)

- at least one independent legal entity established in a Member State, and
- at least two other independent legal entities each established either in a different Member State or an Associated Country.

Gender Equality Plan (applicable only from 2022 on)

Participants that are public bodies, research organisations or higher education establishments from Members States and Associated countries **must have a gender equality plan**, covering minimum process-related requirements.

- A self-declaration will be requested at proposal stage (for all types of participants).
- Included in the entity validation process (based on self-declaration)



Who is eligible for funding?



EU COUNTRIES

- Member States (MS) including their outermost regions
- The Overseas Countries and Territories (OCTs) linked to the MS.



NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC)
- Low and middle income countries: See <u>HE</u>
 <u>Programme Guide</u>.
- Other countries when announced in the call or exceptionally if their participation is essential



SPECIFIC CASES

- Affiliated entities established in countries eligible for funding.
- EU bodies
- International organisations (IO):
 - International European research organisations are eligible for funding.
 - Other IO are not eligible (only exceptionally if participation is essential)
 - IO in a MS or AC are eligible for funding for Training and mobility actions and when announced in the call conditions

Associated Countries



For the purposes of the eligibility conditions, applicants established in Horizon 2020 Associated Countries or in other third countries negotiating association to Horizon Europe will be treated as entities established in an Associated Country, if the Horizon Europe association agreement with the third country concerned applies at the time of signature of the grant agreement.

Specific situation of UK

- The UK is expected to soon become an associated country to Horizon Europe. UK entities can take part in the first calls for proposals of Horizon Europe
- The UK is associating to the full Horizon Europe programme with the only exception of the EIC Fund (which is the loan/equity instrument of the EIC).





Eligible activities are the ones described in the call conditions Activities must focus exclusively on civil applications and <u>must not</u>:

- aim at human cloning for reproductive purposes;
- intend to modify the genetic heritage of human beings which could make such changes heritable (except for research relating to cancer treatment of the gonads, which may be financed);
- intend to create human embryos solely for the purpose of research, or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer;
- lead to the destruction of human embryos.



Activities eligible for funding – Type of actions



Programme co-fund actions (CoFund) Activities to establish new knowledge or to explore the feasibility of a new or improved technology, product, process, service or solution.

Activities to produce plans and arrangements or designs for new, altered or improved products, processes or services.

Activities that contribute to the objectives of Horizon Europe. This excludes R&I activities, except for 'Widening participation and spreading excellence'

A programme of activities established or implemented by legal entities managing or funding R&I programmes, other than EU funding bodies.



Activities that embed an innovation action and other activities necessary to deploy an innovation on the market. (EIC)

Activities that aim to improve the skills, knowledge and career prospects of researchers, based on mobility between countries and, if relevant, between sectors or disciplines. (MSCA)

Activities that aim to help a buyers' group to strengthen the public procurement of research, development, validation and, possibly, the first deployment of new solutions

.....

Activities that aim to strengthen the ability of a buyers' group to deploy innovative solutions early





Maximum funding rates

Type of Action	Funding rate
Research and innovation action	100%
Innovation action	70% (except for non-profit legal entities, where a rate of up to 100% applies)
Coordination and support action	100%
Programme co-fund action	Between 30% and 70%
Innovation and market deployment	70% (except for non-profit legal entities, where a rate of up to 100% applies)
Training and mobility action	100%
Pre-commercial procurement action	100%
Public procurement of innovative solutions action	50%

Other funding rates may be set out in the specific call conditions





Application form (proposal template)

Same structure

The proposal contains two parts:

- **Part A** (web-based forms) is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal.
- **Part B** is the narrative part that includes three sections that each correspond to an evaluation criterion. Part B needs to be uploaded as a PDF document following the templates downloaded by the applicants in the submission system for the specific call or topic.



Proposal Template RIA/IA

The proposal contains two parts (SAME STRUCTURE):



•Part A of the proposal is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal. The participants can update the information in the submission system at any time before final submission.

•**Part B** of the proposal is the narrative part that includes three sections that each correspond to an evaluation criterion. Part B needs to be uploaded as a PDF document following the templates downloaded by the applicants in the submission system for the specific call or topic.

• Limit for a full application: **45 pages**



HORIZON 2020 vs HORIZON EUROPE

Structure of the Proposal

The proposal contains two parts:

- Part A of the proposal is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal. The participants can update the information in the submission system at any time before final submission.
- Part B of the proposal is the narrative part that includes three sections that each correspond to an evaluation criterion. Part B
 needs to be uploaded as a PDF document following the templates downloaded by the applicants in the submission system for the
 specific call or topic. The templates for a specific call may slightly differ from the example provided in this document.
- The electronic submission system is an online wizard that guides you step-by-step through the preparation of your proposal. The submission process consists of 6 steps:
- Step 1: Logging in the Portal
- Step 2: Select the call, topic and type of action in the Portal
- Step 3: Create a draft proposal: Title, acronym, summary, main organisation and contact details
- Step 4: Manage your parties and contact details: add your partner organisations and contact details.
- Step 5: Edit and complete web forms for proposal part A and upload proposal part B
- Step 6: Submit the proposal



New features in HE proposals

NEW FIELDS IN PART A

- Researchers table needed to follow up researchers carrers (HE indicator)
- Role participating
- Self-declaration on gender equality plan

FIELDS MOVED FROM PART B TO PART A

- Ethics self-assessment
- Security questionnaire (NEW in all HE proposals)
- Information on participants' previous activities related to the call

NEW IN PART B

- Glossary of terms
- Consistency on the use of terminology is ensured in all project phases (from WP to proposal and reporting)
- Extensive explanations on what exactly should be included in each section



New features in HE proposals PART B

Excellence 1. 1.1 Objectives 1.2 Relation to the work programme 1.3 Concept and methodology 2. Impact 1.4 Ambition -2. Impact 2.1 Expected impacts 2.2 Misure to maximase impact Dissemination and exploitation of results a) Communication activities b) 3. Quality and efficiency of the implementation tables] 3.1 Work plan – work packages, deliverables 3.2 Management structure, milestones and procedu 3 pages] 3.3 Consortium as a whole 3.4 Resources to be committed

Excellence 1.

APRE

- 1.1 Objectives and ambition [e.g. 4 pages]
- 1.2 Methodology [e.g. 15 pages]
- 2.1 Project's pathways towards impact [e.g. 4 pages]
- 2.2 Measures to maximise impact Dissemination, exploitation and communication [e.g. 5 pages]
- 2.3 Summary (Canvas table)
- 3. Quality and efficiency of the implementation
- 3.1 Work plan and resources *[e.g. 14 pages including*
- 3.2 Capacity of participants and consortium as a whole *[e.g.*



Parte A



HORIZON 2020 vs HORIZON EUROPE

PART A ADMINISTRATIVE INFORMATION

- General information (coordinator)
- Participant information, (1 for each partner)
- Budget (completed by the coordinator)

Ethics

Other questions

Horizon 2020

PART A ADMINISTRATIVE INFORMATION

- General information (coordinator)
- Participant information, (1 for each partner)
- Budget (completed by the coordinator)
- Ethics
- Security moved here from Part B section 5.2
- Other questions

Horizon Europe



HORIZON 2020 vs HORIZON EUROPE

A1 General Information						
Horizon 2020	Horizon Europe					
 Project Title Acronym Duration in months Keywords Abstract Declarations 	 Project Title Acronym Duration in months Keywords Abstract Declarations (alcune novità) 					



HORIZON EUROPE – Part A1 Declarations

•	We declare to have the explicit consent of all applicants on their participation and on the content of this proposal.	SAME
•	We confirm that the information contained in this proposal is correct and complete and that none of the project activities have started before the proposal was submitted (unless explicitly authorised in the call conditions).	NEW
	 We declare: to be fully compliant with the eligibility criteria set out in the call not to be subject to any exclusion grounds under the <u>EU Financial Regulation 2018/1046</u> to have the financial and operational capacity to carry out the proposed project. 	SAME
•	We acknowledge that all communication will be made through the Funding & Tenders Portal electronic exchange system and that access and use of this system is subject to the <u>Funding & Tenders Portal Terms & Conditions</u> .	NEW
	We have read, understood and accepted the <u>Funding & Tenders Portal Terms & Conditions</u> and <u>Privacy Statement</u> that set out the conditions of use of the Portal and the scope, purposes, retention periods, etc. for the processing of personal data of all data subjects whose data we communicate for the purpose of the application, evaluation, award and subsequent management of our grant, prizes and contracts (including financial transactions and audits).	NEW
•	We declare that the proposal complies with ethical principles (including the highest standards of research integrity as set out in the <u>ALLEA European Code of Conduct for Research Integrity</u> , as well as applicable international and national law, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocols. <u>Appropriate procedures</u> , <u>policies and structures</u> are in place to foster responsible research practices, to prevent questionable research practices and research misconduct, and to handle allegations of breaches of the principles and standards in the Code of Conduct.	Additional sentence about responsible research practices



HORIZON EUROPE – Part A1 Declarations

	We declare that the proposal has an exclusive focus on civil applications (activities intended to be used in military application or aiming to serve military purposes cannot be funded). If the project involves dual-use items in the sense of <u>Regulation 428/2009</u> , or other items for which authorisation is required, we confirm that we will comply with the applicable regulatory framework (e.g. obtain export/import licences before these items are used).	NEW (here)
-	We confirm that the activities proposed do not	
	 initial for reproductive purposes, intend to modify the genetic heritage of human beings which could make such changes heritable (with the exception of research relating to cancer treatment of the gonads, which may be financed), or intend to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer. lead to the destruction of human embryos (for example, for obtaining stem cells) 	NEW (here)
	We confirm that for activities carried out outside the Union, the same activities would have been allowed in at least	
	one EU Member State	NEW
	[Additional option for LUMP SUM Grants: For Lump Sum Grants with a detailed budget table: We understand and accept that the EU lump sum grants must be reliable proxies for the actual costs of a project and confirm that the detailed budget for the proposal has been established in accordance with our usual cost accounting practices and in compliance with the basic eligibility conditions for EU actual cost grants (see <u>AGA — Annotated Grant Agreement, art</u> <u>6</u>) and exclude costs that are ineligible under the Programme. Purchases and subcontracting costs must be done taking into account best value for money and must be free of conflict of interest.]	NEW



HORIZON 2020 vs HORIZON EUROPE

A2 Participant Information						
Horizon 2020	Horizon Europe					
 Organization Data Departments carrying out the proposed work Dependencies with other proposal participants Person in charge of the proposal 	 Organisation data Departments carrying out the proposed work Links with other participants Main contact person AND Other contact persons Researchers involved in the proposal NEW Role of participating organisation in the project PREVIOUS SECTION 4.1 List of up to 5 publications, widely-used datasets, software, goods, services, or any other achievements relevant to the call content PREVIOUS SECTION 4.1 List of up to 5 most relevant previous projects or activities, connected to the subject of this proposal PREVIOUS SECTION 4.1 Description of any significant infrastructure and/or any major items of technical equipment, relevant to the proposed work PREVIOUS SECTION 4.1 Gender equality plan* NEW 					



Gender Equality Plan

Having a gender equality plan is an **eligibility criterion** for Public bodies, Higher education establishments and Research organisations from Member States and Associated Countries. Be aware that if the proposal is selected, having a Gender Equality Plan will be necessary before the grant agreement signature (applicable on calls with <u>deadlines in 2022 and beyond</u>)



HORIZON 2020 vs HORIZON EUROPE

A3 Budget						
Horizon 2020	Horizon Europe					
 A: direct personnel costs B: other direct costs C: direct costs of sub-contracting D: Direc costs of providing financial support to third parties E: costs of inkind contributions not used on the beneficiary's premises F: indirect costs G: Special unit costs covering direct and indirect costs H:Tot estimated eligable costs I: reimbursement rate J: max Eu contribution 	A: Same B: Subcontracting costs C: Purchase costs (C1: travel & substinces; C2: equipement; C3: other goods, works & services) D: Other costs categories E: Indirect costs F: Tot eligible costs G: Funding rate H: Max EU contribution I: requested EU contrinution J: income generated by action K: financial contributions					
K: requested EU contribution	L: own resources M: Tot estimated income					



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Possible 'Other cost categories' for Horizon Europe



			Estimated project expenditure									
				Estimated eligible costs								
							D. Other cos	t categories		0,		
No	Participant name	Count ry	D.1 Financial support to third parties (Actual costs) (d1)	D.2 Internally invoiced goods and services (Unit costs - usual accounting practices) (d2)	[D.3 Transnation al access to research infrastructure s (Unit costs) (d3)]	[D.4 Virtual access to research infrastructure s (Unit costs) (d4)]	/D.5 PCP/PPI procurement costs (Actual costs) (d5)]	(D.6 Euratom Cofund staff mobility costs (Unit cos ts) (d6))	[D.7 ERC additional funding (Actual costs) (d7)]	/D.8 ERC additional funding (subcontracti ng, FSTP and internally invoiced goods and services) (Actual costs) (d8)]		
1	Participant 1	NL					X					
2	Participant 2	LB					0					
	Affiliated Entity	LB					•					
3	Participant 3	DE				>, \						
	Associated Partner	AR			$\boldsymbol{\mathcal{A}}$							
4	Participant 4 (without funding)	US										
	Total											



HORIZON 2020 vs HORIZON EUROPE

A4 Ethics					
Horizon 2020	Horizon Europe				
 Human embroys/ foetus humans Human cells/tissues Personal Data Animals Third countires Environment & health and safety Dual use Exclusive focus on civil Applications Misuse Other Ethic issues 	 1-7 : Same 8. Artificial Intelligence NEW Dual use, civil applications MOVED TO SECTION A1 Misuse MOVED TO SECTION A4 Security issues table ETHICS SELF-ASSESSMENT: table to be filled in with the following information: NEW Ethical dimension of the objectives, methodology and likely impact Compliance with ethical principles and relevant legislations 				



Security issues table

1. EU class	ified information (EUCI)			Page
Does this a	activity involve information and/or materials requiring protection against unauthorised disclosure (EUCI)?	Yes	No	
If YES:	Is the activity going to use classified information as background information?	Yes	No	
	Is the activity going to generate EU classified foreground information as results?	Yes	No	
Does this a	activity involve HE associated and/or third countries?	Yes	No	
If YES:	Do participants from non-EU countries need to have access to EUCI?	Yes	No	
	Do the non-EU countries concerned have a security of information agreement with the EU	Yes	No	
2. MISUSE				Page
Does this activity have the potential for misuse of results?				
If YES:	Does the activity provide knowledge, materials and technologies that could be channelled into crime and/or terrorism?	Yes	No	
	Could the activity result in the development of chemical, biological, radiological or nuclear (CBRN) weapons and the means for their delivery?	Yes	No	
3. OTHER S	SECURITY ISSUES			Page
Does this a	activity involve information and/or materials subject to national security restrictions?	Yes	No	
If yes, ple	ase specify: (Maximum number of characters allowed: 1000)			
Are there	any other security issues that should be taken into consideration?	Yes	No	
If yes, ple	ase specify: (Maximum number of characters allowed: 1000)			





Parte B



HORIZON 2020

Part B: Technical description

Page limit: The title, list of participants and sections 1, 2 and 3, together, should not be longer **than 70 pages**.

Part B: Technical description

Page limit: The title, list of participants and sections 1, 2 and 3, together, should not be longer **than 45 pages**.



HORIZON 2020

vs HORIZON EUROPE

Part B

- 1. Excellence
- 2. Impact
- 3. Implementation
- 4. Members of the Consortium
- 5. Ethics and Security

Part B

- 1. Excellence
- 2. Impact
- 3. Quality and efficiency of the implementation
- 4. Members of the Consortium moved to Part A2
- 5. Ethics moved to Part A4
- 6. Security moved to Part A5



HORIZON 2020

vs HORIZON EUROPE

Part B1

- 1. Excellence
- 1.1 Objectives
- 1.2 Relation to the work programme
- 1.3 Concept and methodology
- 1.4 Ambition

Part B1

1. Excellence

The following aspects will be taken into account only to the extent that the proposed work is within the scope of the work programme topic.

1.1 Objectives and ambition [e.g. 4 pages]

1.2 Methodology [e.g. 15 pages]



1.1 Objectives and ambition [e.g. 4 pages]

- Briefly describe the objectives of your proposed work. Why are they pertinent to the work programme topic? Are they measurable and verifiable? Are they realistically achievable?
- Describe how your project goes beyond the state-of-the-art, and the extent the proposed work is ambitious. Indicate any exceptional ground-breaking R&I, novel concepts and approaches, new products, services or business and organisational models. Where relevant, illustrate the advance by referring to products and services already available on the market. Refer to any patent or publication search carried out.
- Describe where the proposed work is positioned in terms of R&I maturity (i.e. where it is situated in the spectrum from 'idea to application', or from 'lab to market'). Where applicable, provide an indication of the Technology Readiness Level, if possible distinguishing the start and by the end of the project.

Please bear in mind that advances beyond the state of the art must be interpreted in the light of the positioning of the project. Expectations will not be the same for RIAs at lower TRL, compared with Innovation Actions at high TRLs.


Gli obiettivi devono essere...



General Objectives

Long term: beyond the duration of the project

Improve, strenght, facilitate, realize ...

Specific Objectives

To be realized during the project implementation *Testing, pilot plant, develop new knowledge, ...*

APRE

Le domande per identificare gli obiettivi

- What is the challenge / what are the problems in the specific field (indication etc.)?
- What shall be reached; which problem shall be adressed and solved?
- What is the consortiums' vision ?
- What needs to be delivered in order to reach the expected impact?
- Ask questions to cross-check the "central theme of the proposal":
 - Are the objectives of the project useful to reach the expected impact ?
 - Which approach have they chosen? What is their underlying concept (hypothesis, main assumptions)

APRE

<u>Suggerimenti</u>

- There is usually <u>one</u> main, overarching goal ("overall objective") and several subordinate, more specific goals ("specific objectives"). You should list both.
- To a certain extend, the project objectives are usually already included in the topic text (see: *specific challenge, scope, expected impact*.), sometimes explicitly listed, sometimes more implicit.
- The objectives are a result of the selected topic and the *concept and approach* the consortium has chosen for its project.



Suggerimenti – La prima pagina

- Imagine to be an evaluator...
 - \rightarrow Start with a short description of the Idea of your project
 - \rightarrow Create a picture in the evaluators' mind
 - \rightarrow Identify the objectives of your project on the first page

Useful questions to bear in mind for the short presentation:

- What **problem** do you intend to solve?
- Why should it be solved at **European level**?
- Is the knowledge/solution **already available**?
- Why is now **the perfect time** to do it?
- Why are you the best person/consortium to do it?

APRE

<u>Suggerimenti – Beyond the state-of-the-art</u>

- Present situation vs future situation
- Innovation potential of the project results
- Comparative tables
- Abbreviations



TRL - Technology Readiness Levels





1.2 Methodology [e.g. 15 pages]

Describe and explain the overall methodology, including the concepts, models and assumptions that underpin your work. Explain how this will enable you to deliver your project's objectives. Refer to any important challenges you may have identified in the chosen methodology and how you intend to overcome them. [e.g. 10 pages]

This section should be presented as a narrative. The detailed tasks and work packages are described below under 'Implementation'.

Where relevant, include how the project methodology complies with the 'do no significant harm' principle as per Article 17 of Regulation (EU) No 2020/852 on the establishment of a framework to facilitate sustainable investment (i.e. the so-called 'EU Taxonomy Regulation'). This means that the methodology is designed in a way it is not significantly harming any of the six environmental objectives of the EU Taxonomy Regulation.

Describe any national or international research and innovation activities whose results will feed into the project, and how that link will be established; [e.g. 1 pages]

Explain how expertise and methods from different disciplines will be brought together and integrated in pursuit of your objectives. If you consider that an inter-disciplinary approach is unnecessary in the context of the proposed work, please provide a justification. [e.g. 1/2 page]



<u>Suggerimenti – Descrizione dell'overal methodology</u>

- How will be solved the problems and needs described
- Detailed but concise description of the solution
- Rational why the project is composed this way, in the differente stages identified (research, demonstration, etc.)
- Flow chart visualizing the phases of the project and their interconnections
- Verify coherence among objectives, activities, results

APRE

1.2 Methodology [e.g. 15 pages]

For topics where the work programme indicates the need for the integration of social sciences and humanities, show the role of these disciplines in the project or provide a justification if you consider that these disciplines are not relevant to your proposed project. [e.g. 1/2 page]

Describe how the gender dimension (i.e. sex and/or gender analysis) is taken into account in the project's research and innovation content [e.g. 1 page]. If you do not consider such a gender dimension to be relevant in your project, please provide a justification.

Note: This section is mandatory except for topics which have been identified in the work programme as not requiring the integration of the gender dimension into R&I content.

Remember that that this question relates to the content of the planned research and innovation activities, and not to gender balance in the teams in charge of carrying out the project.

Sex and gender analysis refers to biological characteristics and social/cultural factors respectively. For guidance on methods of sex / gender analysis and the issues to be taken into account, please refer to http://ec.europa.eu/research/swafs/gendered-innovations/index_en.cfm?pg=home



Gender Dimensions



Eligibility: Gender Equality Plan



Award Criteria: Integration of the gender dimension







Gender Equality Plan (applicable from 2022 onwards)

Participants that are **public bodies**, **research organisations** or **higher education institutions*** established in a Member State or Associated Country **must have a gender equality plan** in place, fulfilling **mandatory process-related requirements**

- A self-declaration will be requested at proposal stage (for all categories of participants)
- Included in the entity validation process (based on self-declaration)

* Private-for-profit entities (incl. SMEs), NGOs, CSOs, as well any type of organisations from non-associated third countries, are exempted for the criterion See legal categories definitions in the Funding & Tenders Portal here



Gender: Eligibility Criterion

Mandatory GEP process requirements



Public document

- Formal document
- Signed by top management
- Published on the institution's website
- Disseminated through institution



Dedicated resources

- Funding for gender equality positions or teams
- Reserved time for others to work on gender equality



Data collection and monitoring

Data on sex or gender of staff across roles and leadership
Annual reports and evaluation of progress and

outcomes



Training and capacity building

- Whole organisation engagement
- Tackle gender biases of people and decisions
- Joint action on specific topics



<u>GEP</u>

Recommended GEP content areas









Integration of the gender dimension in R&I content

Gender Dimension

Addressing the gender dimension in research and innovation content entails taking into account sex and gender in the whole research & innovation process

The integration of the gender dimension into R&I content is mandatory, unless it is explicitly mentioned in the topic description

Why is the gender dimension important?

- Why do we observe differences between women and men in infection levels and mortality rates in the COVID-19 pandemic?
- Does it make sense to study cardiovascular diseases only on male animals and on men, or osteoporosis only on women?
- Does it make sense to design car safety equipment only on the basis of male body standards?
- Is it ethical to develop AI products that spread gender and racial biases due to a lack of diversity in the data used in training AI applications?
- Is it normal that household travel surveys, and thus mobility analysis and transport planning, underrate trips performed as
 part of caring work, which are predominantly undertaken by women?
- Did you know that pheromones given off by men experimenters, but not women, induce a stress response in laboratory mice sufficient to trigger pain relief?
- And did you know that climate change is affecting sex determination in a number of marine species and that certain
 populations are now at risk of extinction?

<u>Gender</u> <u>Dimension</u>

Gendered Innovations : How inclusive analysis contributes to research and innovation

- 15 new case studies in health, AI & robotics, climate change, energy, transport, urban planning, waste management, agriculture, taxation, venture funding) building on Horizon 2020 funded projects
- Refined methodologies on the integration of sex/gender based analysis, and intersectional analysis, in R&I content
- > Evidence-based policy recommendations for Horizon Europe
- > Awareness raising material including factsheets
- Case study on the impact of sex & gender in the COVID-19 pandemic
- · Factsheet on gender and intersectional bias in AI
- → Full Policy Review Report and Factsheet released on 25 November 2020
- Interview of Commissioner Gabriel in KILDEN News (25/11/2020)
- <u>Nature editorial (09/12/2020)</u>



<u>Gender</u> <u>Dimension</u>





By order of priority

- 1. Aspects of the call that have not otherwise been covered by more highly ranked proposals
- 2. Scores on 'Excellence' then on 'Impact' (for IAs, scores on 'Impact' then 'Excellence')
- 3. Gender balance among personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities, and who are included in the researchers table in the proposal
- 4. Geographical diversity
- 5. ...



Ranking Criteria

1.2 Methodology [e.g. 15 pages]

Describe how appropriate open science practices are implemented as an integral part of the proposed methodology. Show how the choice of practices and their implementation are adapted to the nature of your work, in a way that will increase the chances of the project delivering on its objectives [e.g. 1 page]. If you believe that none of these practices are appropriate for your project, please provide a justification here.

Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. Open science practices include early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing); research output management; measures to ensure reproducibility of research outputs; providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); participation in open peer-review; and involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science).

Please note that this question does not refer to outreach actions that may be planned as part of communication, dissemination and exploitation activities. These aspects should instead be described below under 'Impact'.





Sönke Bartling & Sascha Friesike





The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing

Der Open





APRE









25/03/21











Open Science Taxonomy



Open Science practices*

- early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing)
- research output management including research data management
- measures to ensure reproducibility of research outputs
- providing open access to research outputs (e.g. publications, data, software, models, algorithms, and workflows) through deposition in trusted repositories
- participation in open peer-review
- involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science)

*Listed in the proposal template

** Mandatory and non-mandatory practices. Mandatory in MGA and WP



Open Access : what changes in HE

Depositing publications in trusted repositories #machine-readable electronic copy #preservations #repository #post-print **Providing open access to publications immediately** 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) or a licence with equivalent rights; for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g. CC BY-NC, CC BY-ND) and information is given via the repository about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication **SHERPA** 3 ROMEO #Only publication fees in full open access venues for peer-reviewed scientific publications are eligible for reimbursement

Not an obligation to publish - Not at odds with patenting - OA publications go the same peer review process



ORE: Open Research Europe,

the European Commission open access publishing service



article are linked and

independently citable.

APRE

https://open-research-europe.ec.europa.eu/

1.2 Methodology [e.g. 15 pages]

Research data management and management of other research outputs: Applicants generating/collecting data and/or other research outputs (except for publications) during the project must provide maximum 1 page on how the data/ research outputs will be managed in line with the FAIR principles (Findable, Accessible, Interoperable, Reusable), addressing the following (the description should be specific to your project): [1 page]

- Types of data/research outputs (e.g. experimental, observational, images, text, numerical) and their estimated size; if applicable, combination with, and provenance of, existing data.
- Findability of data/research outputs: Types of persistent and unique identifiers (e.g. digital object identifiers) and trusted repositories that will be used.
- Accessibility of data/research outputs: IPR considerations and timeline for open access (if open access not provided, explain why); provisions for access to restricted data for verification purposes.
- Interoperability of data/research outputs: Standards, formats and vocabularies for data and metadata.
- Reusability of data/research outputs: Licenses for data sharing and re-use (e.g. Creative Commons, Open Data Commons); availability of tools/software/models for data generation and validation/interpretation /re-use.
- Curation and storage/preservation costs; person/team responsible for data management and quality assurance.

Proposals selected for funding under Horizon Europe will need to develop a detailed data management plan (DMP) for making their data/research outputs findable, accessible, interoperable and reusable (FAIR) as a deliverable by month 6 and revised towards the end of a project's lifetime.

For guidance on open science practices and research data management, please refer to the relevant section of the HE Programme Guide on the Funding & Tenders Portal.



Research data management

Beneficiaries must manage the digital research data generated in the action responsibly, in line with the FAIR principles

establish + regularly update a **data management plan** ('DMP') for generated (and/or collected) data; by <u>mo 6</u> of project; with submission or latest by grant agreement in cases of public emergency (e.g. COVID projects)

as soon as possible and within the deadlines set out in the DMP, **deposit** the data in a <u>trusted repository</u> (federated in the EOSC if required in the call conditions) **+ ensure OA under CC BY, CC 0 or equivalent, following the principle 'as open as possible as closed as necessary'**

provide information via the repository about any research output/tools/instruments needed to **re-use or validate the data**

Metadata must be open under CC 0 or equivalent (<u>to the extent</u> legitimate interests or constraints are safeguarded), **in line with the FAIR principles** and provide information about the licensing terms and persistent identifiers, amongst others



Alcune domande da farsi prima di andare avanti

- Does chapter 1 create curiosity and stimulates to carry-on reading?
- Does the layout encourage reading (with pleasure)?
- Check consistency across chapter 1, and across entire proposal
- Are abbreviations explained (when first occuring)?
- Are figures self-explanatory (applicants tend to have too many figures in chapter 1, and also the wrong figures!)
- Take an Helicopter view on the proposed project: do you get all required information? What is missing? What is overdone?

APRE

2.1 Project's pathways towards impact [e.g. 4 pages]

- 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.
- a) 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.

Be specific, referring to the effects of your project, and not R&I in general in this field.

State the target groups that would benefit. Even if target groups are mentioned in general terms in the work programme, you should be specific here, breaking target groups into particular interest groups or segments of society relevant to this project.

The outcomes and impacts of your project may:

- 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.

Only include such outcomes and impacts where your project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts. However, include any potential negative environmental outcome or impact of the project including when expected results are brought at scale (such as at commercial level). Where relevant, explain how the potential harm can be managed.



2.1 Project's pathways towards impact [e.g. 4 pages]

b) 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; regulatory environment; targeted markets; user behaviour. 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.

Note that this does not include the critical risks inherent to the management of the project itself, which should be described below under 'Implementation'

c) 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.

'Scale' refers to how widespread the outcomes and impacts are likely to be. For example, in terms of the size of the target group, or the proportion of that group, that should benefit over time; 'Significance' refers to the importance, or value, of those benefits. For example, number of additional healthy life years; efficiency savings in energy supply.

Explain your baselines, benchmarks and assumptions used for those estimates. Wherever possible, quantify your estimation of the effects that you expect from your project. Explain assumptions that you make, referring for example to any relevant studies or statistics. Where appropriate, try to use only one methodology for calculating your estimates: not different methodologies for each partner, region or country (the extrapolation should preferably be prepared by one partner).

Your estimate must relate to this project only - the effect of other initiatives should not be taken into account.



Impact

Impact = The benefits derived from the innovation;

The larger the benefit, the larger the impact

- Impact is not limited to economic or commercial aspects;
- scientific

It must go beyond the life-cicle of the project

The impact in different contests



@University of Helsinki

European Science Foundation Impact Classifications



The impact journey

The impact journey traces research impact over time including identification of distinctive stages in its development, and its subsequent diffusion between disciplines and the wider society.

The diagram below demonstrates the various pathways to impact and distinguishes between inputs, activities, outputs, outcomes and impacts.





COME IMPATTA NELLA STRUTTURA DEI WORK PROGRAMME?

		DEFINITION
	EC POLICY PRIORITY	Based on the Political Guidelines for the European Commission 2019-2024 with a focus on three key priorities : Green Deal, Europe fit for a digital age, Economy that works for people
	KEY STRATEGIC ORIENTATIONS FOR R&I SUPPORT	= A set of strategic policy objectives that set the directions for R&I investments in order to achieve the political guidelines and policy objectives of the new Commission
PROJECT PROPOSAL	EXPECTED IMPACTS => DESTINATIONS	= long term targeted effects on society (incl. the environment), the economy and science enabled by the outcomes of EU R&I investment
	EXPECTED OUTCOMES =>TOPICS	= Uptake, diffusion, use and/or deployment of project's outputs expected by direct project target groups (medium term).
	EXPECTED OUTPUTS => DELIVERABLES	= Deliverables to be generated by the project during its implementation, such as a report, a database, a publication, a prototype, trained researchers, new infrastructures, etc. (short term).
Strategic Plan in numeri

4 key strategic orientations supportati da 15 impact areas

6 Cluster – Ciascun Cluster ha un cluster-specific impact summaries e 6 impatti attesi

Ciascun impatto atteso genera una destinations = **36** destinations

Ogni destination ha un insieme di topic

Ogni topic ha un Expected Outcome



Esempio dal Cluster 5

Cluster 5 will support in particular the following two Horizon Europe key strategic orientations and impact areas associated to them²⁹

KEY STRATEGIC ORIENTATIONS FOR R&	KSO A: Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains	KSO C: Making Europe the first digitally enabled circular, climate-neutral and sustainable economy
IMPACT AREAS	 Industrial leadership in key and emerging technologies that work for people	 Climate change mitigation and adaptation Affordable and clean energy Smart and sustainable transport Circular and clean economy
EXPECTED IMPACTS	22. Clean and sustainable transition of the energy and transport sectors	21. Transition to a climate-neutral and resilient society and economy
	25. Climate-neutral and environmental-friendly mobility	23. Efficient, clean, sustainable, secure, and competitive energy supply
		24. Efficient and sustainable use of energy
		26. Safe, seamless, smart, inclusive, resilient, climate neutral and sustainable mobility systems



Definizione impact pathway in proposal template

Logical steps towards the achievement of the expected impacts of the project 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.



Impact Pathway





2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

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).

Please remember that this plan is an admissibility condition, unless the work programme topic explicitly states otherwise. In case your proposal is selected for funding, a more detailed 'plan for dissemination and exploitation including communication activities' will need to be provided as a mandatory project deliverable within 6 months after signature date. This plan shall be periodically updated in alignment with the project's progress.

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. Activities must be strategically planned, with clear objectives, start at the outset and continue through the lifetime of the project. The description of the communication activities needs to state the main messages as well as the tools and channels that will be used to reach out to each of the chosen target groups.

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, e.g. standardisation activities. Your plan should give due consideration to the possible follow-up of your project, once it is finished. In the justification, explain why each measure chosen is best suited to reach the target group addressed. Where relevant, and for innovation actions, in particular, describe the measures for a plausible path to commercialise the innovations.

If exploitation is expected primarily in non-associated third countries, justify by explaining how that exploitation is still in the Union's interest.

Describe possible feedback to policy measures generated by the project that will contribute to designing, monitoring, reviewing and rectifying (if necessary) existing policy and programmatic measures or shaping and supporting the implementation of new policy initiatives and decisions.



Differenze tra Disseminazione e comunicazione

→ Disseminazione	-> Comunicazione (Outreach)
Collegato solo ai risultati	Collegato ai risultati e al progetto
Audience che può usare il risultato	Audience multiplo
Target con un alto grado di alfabetizzazione scientifica	Target con conoscenza differente
Favorire lo sfruttamento dei risultati	Aumentare la visibilità del progetto e dei suoi risultati
Inizia con la produzione dei primi risultati	Parte sin da subito
Scientific publications Policy brief/roadmap Training/demonstration Sharing results on online repository (research data, software, reports)	Newsletter Press release Project factsheet, brochure Social media (blogs, Twitter, Facebook, LinkedIn)

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



Disseminazione, Comunicazione e sfruttamente nel life-cycle del progetto





Measures to maximize: Dissemination & Exploitation

The proposal takes in to account the capacity and role of each consortium member, and the extent to which the consortium as a whole brings together the necessary expertise

Planned D&E measures

- that are proportionate to the scale of the project
- that contain concrete actions (i.e. stakeholders management, business and market actions, standardisation, spin-off, etc.) to be implemented both during and after the end of the project
- planed according to draft timeline of when they will reach their own outcomes/impact both during and after the project

Target group (e.g. scientific community, end users, financial actors, public at large)

- What is the proposed channel to interact with the target group?
- What is the function of the proposed target group? How do they contribute to the maximisation of impact?

Follow-up plan to foster exploitation/uptake of the results

Policy feedback measures to contribute to policy shaping and supporting the implementation of new policy initiatives and decisions

APRE



D&E at proposal stage Under the Key Impact Pathway

- D&E cuts across the overall project life cycle, from the proposal until after the end of the project
- Applicants have to submit (unless Work Programme says otherwise) a short description of the D,E &C activities together with the impact pathways in their proposal
- In Horizon Europe not a full fledged D&E plan is required at proposal stage, but a complete exploitation, dissemination and communication plan has to be submitted during the first 6 months of the project

APRE



Obligations of beneficiaries to exploit their results and the Horizon Results Platform

In Horizon Europe, as in H2020, the obligation to exploit remains and is a responsibility of the beneficiaries on a "best efforts" approach

When specified in the WP additional exploitation obligations could be applied

Horizon Europe encourages the use of the R&I results through third party exploitation (where appropriate)

If despite the best effort for exploitation no uptake happens within a specific period after the end of the project (1 year), then the project must use the Horizon Results Platform to make exploitable results visible (unless obligation is waived)

The Horizon Results Platform is free, is part of the F&T portal, available to all beneficiaries and is based on results, not on projects.

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform



Follow up of results after the end of the project Through the reporting tools

- In Horizon Europe, the follow up of the exploitation activities will continue after the end of the project
- The first year after the end of the project, and if no exploitation takes place, beneficiaries must use the Horizon Results
 Platform for making their exploitable results visible
- For the following period there will probably be a structured questionnaire available to beneficiaries to report on the progress, their needs and obstacles on their path for exploitation
- This questionnaire could be part of the EC grant management system and will remain open until the conclusion of the follow up period after the end of the project where a final report will be created





Il piano di comunicazione e disseminazione





2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

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.

If your project is selected, you will need an appropriate consortium agreement to manage (amongst other things) the ownership and access to key knowledge (IPR, research data etc.). Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project.

If your project is selected, you must indicate the owner(s) of the results (results ownership list) in the final periodic report.



Summary 2.3

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.

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?
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. 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.	Example 1 Successful large-scale demonstrator: 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. Example 2 Publication of a scientific discovery on transparent electronics. New product: More sustainable electronic circuits. Three PhD students trained.	 Example 1 Exploitation: Patenting the algorithmic model. Dissemination towards the scientific community and airports: Scientific publication with the results of the large-scale demonstration. Communication towards citizens: An event in a shopping mall to show how the outcomes of the action are relevant to our everyday lives. 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	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 work programme?
Example 1	Example 1	Example 1
 9 European airports: Schiphol, Brussels airport, etc. The European Union aviation safety agency. Air passengers (indirect). Example 2 End-users: consumers of electronic devices. Maior electronic companies: Samsung, Apple, etc. 	 Up-take by airports: 9 European airports adopt the advanced forecasting system demonstrated during the project. Example 2 High use of the scientific discovery published (measured with the relative rate of citation index of project publications). 	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. Example 2
Scientific community (field of transparent electronics).	A major electronic company (Samsung or Apple) exploits/uses the new product in their manufacturing.	 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).



3.1 Work plan and resources [e.g. 14 pages – including tables]

Please provide the following:

brief presentation of the overall structure of the work plan;

Itiming of the different work packages and their components (Gantt chart or similar);

Igraphical presentation of the components showing how they inter-relate (Pert chart or similar).

detailed work description, i.e.:

- a list of work packages (table 3.1a);
- a description of each work package (table 3.1b);
- a list of deliverables (table 3.1c);

Give full details. Base your account on the logical structure of the project and the stages in which it is to be carried out. The number of work packages should be proportionate to the scale and complexity of the project.

You should give enough detail in each work package to justify the proposed resources to be allocated and also quantified information so that progress can be monitored, including by the Commission

Resources assigned to work packages should be in line with their objectives and deliverables. You are advised to include a distinct work package on 'project management', and to give due visibility in the work plan to 'data management' 'dissemination and exploitation' and 'communication activities', either with distinct tasks or distinct work packages.

You will be required to update the 'plan for the dissemination and exploitation of results including communication activities', and a 'data management plan', (this does not apply to topics where a plan was not required.) This should include a record of activities related to dissemination and exploitation that have been undertaken and those still planned.

Please make sure the information in this section matches the costs as stated in the budget table in section 3 of the application forms, and the number of person months, shown in the detailed work package descriptions.



3.1 Work plan and resources [e.g. 14 pages – including tables]

Please provide the following:

- a list of milestones (table 3.1d);
- a list of critical risks, relating to project implementation, that the stated project's objectives may not be achieved. Detail any risk mitigation measures. You will be able to update the list of critical risks and mitigation measures as the project progresses (table 3.1e);
- **T**a table showing number of person months required (table 3.1f);
- **T**a table showing description and justification of subcontracting costs for each participant (table 3.1g);
- a table showing justifications for 'purchase costs' (table 3.1h) for participants where those costs exceed 15% of the personnel costs (according to the budget table in proposal part A);
- **I**if applicable, a table showing justifications for 'other costs categories' (table 3.1i).



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

The individual members of the consortium are described in a separate section under Part A. There is no need to repeat that information here.

Describe the consortium. How does it match the project's objectives, and bring together the necessary disciplinary and inter-disciplinary knowledge. Show how this includes expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate.

Show how the partners will have access to critical infrastructure needed to carry out the project activities.

Describe how the members complement one another (and cover the value chain, where appropriate)

- In what way does each of them contribute to the project? Show that each has a valid role, and adequate resources in the project to fulfil that role.
- If applicable, describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project (see section 2.2).

Other countries and international organisations: If one or more of the participants requesting EU funding is based in a country or is an international organisation that is not automatically eligible for such funding (entities from Member States of the EU, from Associated Countries and from one of the countries in the exhaustive list included in the Work Programme General Annexes B are automatically eligible for EU funding), explain why the participation of the entity in question is essential to successfully carry out the project.



Table 3.1a: List of work packages

Tables for section 3.1

Table 3.1a: List of work packages

Work package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Person- Months	Start Month	End month
						S.C
				Total person- months	00	



Table 3.1b: Work packagedescription

Table 3.1b: Work package description

For each work package:

Work package number		Lead b	eneficiary				
Work package title							
Participant number							
Short name of participant							
Person months per participant:							
Start month				End month			2,
						\sim	,
Objectives					ç	C	
					~		
Description of work (where appropriate, broken down into tasks), lead partner and role of participants							
Deliverships (brief description and a		Const					
ample							



Table 3.1c: List of Deliverables

Table 3.1c: List of Deliverables⁶

Only include deliverables that you consider essential for effective project monitoring.

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Туре	Dissemination level	Delivery date (in months)
						2,
					2	

KEY

Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.

Type:

Use one of the following codes:

- R: Document, report (excluding the periodic and final reports)
- DEM: Demonstrator, pilot, prototype, plan designs
- DEC: Websites, patents filing, press & media actions, videos, etc.
- DATA: Data sets, microdata, etc.
- DMP: Data management plan
- ETHICS: Deliverables related to ethics issues.
- SECURITY: Deliverables related to security issues
- OTHER: Software, technical diagram, algorithms, models, etc.

Dissemination level:

Use one of the following codes:

PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)

SEN – Sensitive, limited under the conditions of the Grant Agreement

Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444 Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444 Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

Delivery date

Measured in months from the project start date (month 1)



Table 3.1d: List of milestones Table 3.1e: Critical Risk for implementation

Table 3.1d: List of milestones

Milestone number	Milestone name	Related work package(s)	Due date (in month)	Means of verification

KEY

Due date

Measured in months from the project start date (month 1)

Means of verification

Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype that is 'up and running'; software released and validated by a user group; field survey complete and data quality validated.

Table 3.1e: Critical risks for implementation

Description of risk (indicate level of (i)	Work package(s)	Proposed risk-mitigation
likelihood, and (ii) severity:	involved	measures
Low/Medium/High)		
	×	
•		

Definition critical risk:

1

A critical risk is a plausible event or issue that could have a high adverse impact on the ability of the project to achieve its objectives.

Level of likelihood to occur: Low/medium/high

The likelihood is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place.

Level of severity: Low/medium/high The relative seriousness of the risk and the significance of its effect.





Submission and evaluation

Horizon Europe Strategic Plan 2021-2024







Admissibility

Same general admissibility conditions

- Applications must be submitted before the call deadline, electronically via the Funding & Tenders Portal
- Applications must be **complete**, **readable**, **accessible** and **printable**, and include a **plan for the exploitation and dissemination of results**, unless provided otherwise in the specific call conditions.

Proposal page limit

Substantial reduction in maximum length:

- RIAs and IAs type of actions: limit for a full application is **45 pages**
- CSAs: limit is **30 pages**
- First stage proposals: limit is **10 pages**
- EIC Pathfinder: limit is **17 pages**
- Exceptions, if any, would be specified in the call text.



SINGLE STAGE vs TWO-STAGE submission

- Evaluation procedure and ranking Calls may be subject to either a single-stage submission procedure or a two-stage submission procedure. The evaluation procedure could be organised in one (standard) or several steps.
- In the first stage of two-stage submission, applicants will be requested to submit only an outline application (which will be evaluated against only two award criteria: 'Excellence' and 'Impact').
- Successful applicants will be invited to submit a full application for the second stage (which will be evaluated against the full set of award criteria).



EX AEQUO PROPOSALS

- I)Proposals that address call aspects identified in the topic description not otherwise covered by more highly ranked proposals, will be considered to have the highest priority.
- III 2) The proposals identified under 1), if any, will themselves be prioritised according to the scores they have been awarded for the criterion 'Excellence'. When these scores are equal, priority will be based on scores for the criterion 'Impact'. NB: In the case of <u>Innovation actions</u> this prioritisation will be done first on the basis of the score for 'Impact', and then on that for 'Excellence'.
- 3) If necessary, the gender balance among the personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities, and who are included in the researchers table of the proposal, will be used as a factor for prioritisation.
- 4) If necessary, any further prioritisation will be based on geographical diversity, defined as the number of EU Member states or Associated Countries represented in the proposal, not otherwise receiving funds from projects higher up the ranking list (and if equal in number, then by budget).
- 5) If a distinction still cannot be made, the panel may decide to further prioritise by considering other factors related to the objectives of the call, or to Horizon Europe in general. These may include, for example, enhancing the quality of the project portfolio through synergies between projects or, where relevant and feasible, involvement of SMEs. These factors will be documented in the panel report.





Same criteria as in H2020

Same three award criteria: 'Excellence', 'Impact' and 'Quality and efficiency of the implementation'. Excellence only for ERC.

Adapted following lessons learnt

- The number of 'aspects to be taken into account' have been reduced, ensuring that the same aspect is not assessed twice
- **Open Science** practices assessed as part of the scientific methodology in the excellence criterion
- New approach to impact: Key Impacts Pathways (KIPs)
- The assessment of the **quality of applicants** is assessed under 'implementation', rather than as a separate binary assessment of operational capacity
- Assessment of management structures has been removed.



Evaluation criteria (RIAs and IAs)

EXCELLENCE

- 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, interdisciplinary 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.

IMPACT

- 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 maximize expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

- 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 extent to which the consortium as a whole brings together the necessary expertise.





EXCELLENCE

✓ 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

IMPACT

 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. QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

for first stage:overall





EXCELLENCE

- Clarity and pertinence of the project's objectives,
- Quality of the proposed coordination and/or support measures including soundness of methodology.

IMPACT

- 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.

QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

- Quality and effectiveness of the work plan, 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 extent to which the consortium as a whole brings together the necessary expertise



Proposals aspects are assessed to the extent that the proposed work is within the scope of the work programme topic

SCORING

- For full applications, each criterion will be scored out of **5**. The threshold for individual criteria will be **3**.
- The overall threshold, applying to the sum of the three individual scores, will be 10. To determine the ranking for Innovation actions, the score for the criterion 'Impact' will be given a weight of 1.5.

Two-stage calls — For the evaluation of first-stage applications under a twostage submission procedure, only the criteria '**Excellence' and 'Impact'** will be evaluated. The threshold for both individual criteria will be **4**. For each indicative budget-split in the call conditions, the overall threshold applying to the sum of the two individual scores, will be set at a level ensuring that the total requested budget of proposals admitted to stage 2 is as close as possible to three times the available budget, and in any case, not less than two and a half times the available budget. The actual level will therefore depend on the volume of proposals received. The threshold is expected to normally be set at **8 or 8.5**.







Piloting new processes based on lessons learnt



Right-to-react (Rebuttal)

- Objective is to increase transparency, to correct any factual or major misunderstandings by experts at an early stage, and provide more detailed feedback to applicants.
- Applicants will send their reactions to draft experts comments
- Experts will take applicants' reaction into account before finalising their final assessment.



Piloting new processes based on lessons learnt



Blind evaluation (in 1st stage)

- There is no evidence that the current proposal evaluation system is systematically biased.
- There are understandable concerns that evaluation experts may be swayed perhaps unconsciously in favour of proposals from well-known organisations in countries with better performing R&I systems.
- 'Blind' evaluation is a way to remove any real or perceived effect of such reputational bias.
- Experts evaluate without knowing the identity of participants.
- The work programme will include an additional admissibility criterion: applicants can not be disclosed in the narrative part of the proposal.




Same criteria as in H2020

For all activities funded, ethics is an **integral part** of research from beginning to end, and **ethical compliance** is essential to achieve real research excellence. An ethics review process is carried out systematically in all Horizon Europe proposals, based on a **self-assessment** included in the proposal.

Ethical research conduct implies the application of fundamental ethical principles and legislation in all possible domains of research. This includes the adherence to the highest standards of **research integrity** as described in the **European Code of Conduct for Research Integrity**.

Adapted following lessons learnt

- Focus mainly on complex/serious cases
- Reduce number of ethics requirements in funded projects.



Partenariati Vincenti e perdenti in Horizon 2020: Quali Caratteristiche? (MDR)

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Excellence Science

Weaknesses

- The objectives match those of the call only partially, the objectives lack some specificity in some places and the description of efforts to achieve some objectives is insufficient.
- The **methodology and approach** are described in rather general or insufficient ways (e.g. not supported by facts or references), or are imbalanced (e.g. focus only on one technological aspect/area/theme/too much concentrated on literature only and the practical pilots are not described or briefly discussed). Chosen technology is not appropriate/enough justified/well described. Proposed approach is often not suitable/convincing/justified for the ambition of the project.
- Ambition of the project is not realistic. Over ambitious targets at the limited time scale or also very limited aims are usually referred to as a major shortcoming.
- The level of **trans-disciplinarity** is limited, not dealt with or integrated or formulated in an unclear way.
- Scientific credibility is limited or the assessment of the level of the ambition is difficult
- The **innovation potential** appears limited/ only one part of the project has innovation potential, the innovation potential and capacity to go beyond the state-of-the-art is not fully convincing.
- In IAs there should not be too much focus put on research activities.



Excellence Science

Strengths

- **Ambitions** well in balance with the project consortium capabilities, objectives, and duration of the project. The proposal is ambitious, realistic and comprehensive
- In addition to the fact that all **objectives** are clearly described, logically planned and refer to the scope of the call, they are also **well formulated** (importance of English proofreading!).
- Technological component is well described
- It is well seen if the **replicability of the results** is also considered.
- The proposal is **innovative**. Use of **new methods/ technology** is in general seen as a positive aspect by evaluators but of course, it has to be well justified and proofed by references.
- **Multi-actor approach** is in majority of cases considered as advantage. It is important to remember that simultaneously the required target groups/environments/areas should be highlighted. Clear priorities of the project have been well received by evaluators.
- Proposals which need engagement of **different regions** the geographical coverage and thorough justification are highly appreciated.
- Positive attention could be gained through **follow-up activities/plans**
- Usage of results of previous projects, engagement with already existing thematic networks.
- The overall **conceptual framework** is sound, well described and designed



Impatto

Weaknesses

- Limited generation of new knowledge or the integration of new knowledge to existing remains unclear
- Limited engagement of **stakeholders** or limited research collaboration
- Lack of detailed IPR management
- Impact after the end of the project is questionable, as only insufficient information how the results will be maintained, updated and exploited beyond the duration of the project has been provided. It is highly connected to the problem that in many projects the data management is inadequately addressed.
- The description of the **dissemination strategy** lacks precision
- Risk analysis improperly considered
- Quantification of impacts insufficiently justified and impact measurement missing/insufficient. Concrete measures/indicators how the impacts will be assessed are not elaborated and it stays unclear how the results are reaching the target audience and what it will change. Achievability of the impact is often not convincing. Impact addressed in a very narrow scale is also problematic. It is often too much concentrated on local level benefits/benefits only to consortium members/certain narrow target groups does not have an EU added value/ impact to wider public or market/impact to several different relevant stakeholders.
- **Restricted access to deliverables** is restricting strongly the extent of the impact
- Replicability of proposed solutions or methods uncertain

APRE

Impatto

Strengths

- The expected impacts are outlined well
- The proposed measures for exploitation, dissemination and communication of the project results are extensive and adequate. All partners are somehow included to dissemination activities and communication activities.
- Open access provided, data management well elaborated
- High potential to enable new knowledge integration and transfer
- High potential to enhance innovation capacity
- The project consortium is strong, e.g. project brings together different stakeholders and participation of each partner is well justified
- Convincing methodology/business model will ensure high impact
- Management of IPR is properly addressed



Implementazione

<u>Weaknesses</u>

- **Planning of Work Packages** (WP) contains several mistakes, e.g. in timing of outputs, potential overlap between WPs, interconnections missing between WPs, some obligatory WPs are missing (e.g. management or dissemination), structure of WPs is too complicated, objectives and WPs are not linked, division of work between partners is unjustified or not clear, insufficiently high allocation of resources are given to the coordinator. Milestones and deliverables are not aligned with the work plan.
- Inappropriate or superficially described management structure. For example the
 management structure is too complicated/decision making procedure is not clear/is
 hard to follow in practice. If not all the consortium members are involved in
 management activities, it can lead to a situation where the interests of some
 consortium members are not taken into account. It is also necessary to note that
 management procedures should be suitable for the consortium size.
- The **consortium** appears somewhat **imbalanced** or there is a limited SME involvement. Some partner descriptions insufficiently elaborated
- Scientific coordination light and not enough structured
- The **risk and innovation management** inadequately addressed, some crucial risks have not been identified
- The relative lack of **social sciences** decreases the likely effectiveness of the implementation
- No advisory board is associated with the project
- A balanced participation of women and men is not ensured
- Innovation management is missing
- **Budget** not balanced or overestimated. Budget is not in accordance with person months and with the ambition of the project.
- **Progress monitoring measures** (during the project) are not planned or very briefly described
- Risk management not considered

APRE

Implementazione

Strengths

- Good balance between expertise, good balance and complementarity between the participants in the consortium. Consortium covers the entire value chain. Composition of the consortium is in good coherence with the requirements of the call text (e.g. some specific partners could be required). If there is a plan to enter to a new market a specific partner from that area would be a great benefit to the consortium. The gender, career-stage and geographical spread of the partners is excellent. Coordinator of the consortium is experienced and demonstrates credibility to lead and manage international projects.
- The management of the project is very focused, transparent and well-conceived. Clear decision making process, conflict management and risk mitigation plan is a great benefit. The presence of a scientific advisory board is welcome.
- The **work plan** is well developed and work packages are coherent and complementary. The **allocation of tasks** is well distributed between all the partners.
- The expected **deliverables** are appropriate and presented in a very detailed way
- The **budget** is well justified, the overall planned resources are well distributed among work packages and tasks



Dalla prospettiva del Valutatore

Criterion	DO	DON'T
	Define objectives clearly.	Don't rush; poorly prepared proposal ruins even the most excellent plans.
	Be ambitious, but stay realistic.	Don't repeat something what is already
	Choose appropriate methodology.	done.
	Choose relevant partners and reliable coordinator.	Don't forget to include partners from differe regions, disciplines, stakeholder groups to compose a balanced consortium.
lence	Put effort on describing the state-of-art and proof of concept.	Don't forget to show the credibility of your consortium.
Excel	Create links with previous networks/projects and relevant policies.	Don't hesitate to provide detailed descriptio
	Engage interdisciplinary expertise.	etc. Superficial description of the processes is often brought out as a major shortcoming
	Stay accurate, concise throughout the	
	proposal Bring out the innovation potential.	If you have a novel approach – don't forget to describe it thoroughly and to support it with relevant references.
	If something stays unclear, contact your NCP.	

Dalla prospettiva del Valutatore

	When planning be concrete and precise.	Don't list irrelevant and unreal impacts.
	Quantify as much as possible.	Don't try to be very optimistic as it may cause the lack of credibility.
	Use financial figures and develop a	
	business model and/or business plan.	Don't use general descriptions, without any specific focus.
	Elaborate a convincing	
	commercialisation plan.	Don't use a weak or general analysis of the market and competition.
	Take into account all the expected	
	impacts described in the topic.	Don't miss concrete market details: potential market volumes, which markets, specific
	Expected impacts should be derived and justified on previous results.	products, prices, etc.
		Don't copy proposal's parts (mainly IPR
	Plan a good cooperation with end users	management) from your previous project
act	from the beginning of the project.	proposals.
Ē	Involve policy makers, SMEs and	Don't forget that the impact should be
	industry in the proposal or plan a	related to the particular concept, not to the
	sustainable cooperation with them.	call fiche.
	Describe industrial uptake of research	Don't repeat (or copy) required impact from
	results in details.	the call instead of development of your own proposal content.
	Develop an excellent dissemination plan	
	(with diverse dissemination measures).	Don't confuse dissemination with
		communication or exploitation.
	Address adequately and clearly explain	
	dissemination of project results.	Don't forget to use concrete information
	Ack for evaluation of impacts (by	about expected environmental savings.
	professionals).	
	Ask NCPs for cooperation.	

Dalla prospettiva del Valutatore

	Concrete and precise planning.	Don't use repetitions from within the text of the proposal.
	Details and Quantification.	
	Use Tables.	Don't do "copy-pastes" from other/ previous
		proposals.
c	Well-timed tasks and activities with well-	
tio	balanced allocation to partners.	Don't forget the details - unsubstantiated/
Ita	-	unreferenced content/ figures/ numbers are
en	Well-balanced and justified resources	causing a negative impression.
em	and budget.	
d	-	Don't take beneficiaries/ Partners who are
필	Consortium with partners who	"joyriders" with no significant role and tasks.
	complement and synergize well in	
	expertise and tasks.	Don't plan vague Deliverables and
		Milestones.
	Consultation with NCP.	Lack of "Plan B" and contingency measures.



ESERCITAZIONE – IMPACT PATHWAY



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?
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. 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.	Example 1 Successful large-scale demonstrator: 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. Example 2 Publication of a scientific discovery on transparent electronics. New product: More sustainable electronic circuits. Three PhD students trained.	 Example 1 Exploitation: Patenting the algorithmic model. Dissemination towards the scientific community and airports: Scientific publication with the results of the large-scale demonstration. Communication towards citizens: An event in a shopping mall to show how the outcomes of the action are relevant to our everyday lives. 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	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 work programme?
Example 1	Example 1	Example 1
 9 European airports: Schiphol, Brussels airport, etc. The European Union aviation safety agency. Air passengers (indirect). Example 2 End-users: consumers of electronic devices. Maior electronic companies: Samsung, Apple, etc. 	Up-take by airports: 9 European airports adopt the advanced forecasting system demonstrated during the project. Example 2 High use of the scientific discovery published (measured with the relative rate of citation index of project publications)	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. Example 2
Scientific community (field of transparent electronics).	A major electronic company (Samsung or Apple) exploits/uses the new product in their manufacturing.	 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).



APRE



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DEFINIZIONE DELLA SEZIONE 2.3 - ISTRUZIONI

- La classe è divisa in 2 gruppi
- **A**i 2 gruppi è assegnato lo stesso topic di HEU
- **D**Ogni gruppo, al suo interno, individua un referente
- Ill referente deve:
 - Tenere i tempi dell'esercizio
 - Mantenere il focus della discussione
 - Relazionare in plenaria sull'esercizio condotto
- L'esercitazione è condotta online tramite Miro
- Ill docente cambierà stanza ogni 7/10 minuti e sarà a disposizione per domande



ISTRUZIONI

Guardare il «percorso» presentato in Miro

Capire gli elementi che verranno discussi

Leggere attentamente il topic (*GOV-01-08-2021- Improving understanding of and engagement in bio-based systems with training and skills development***)** <u>**online**</u>

NON fare modifiche sul file: scaricalo sul tuo pc!

- Il file è diviso in due parti
 - Destination Area description \rightarrow Impatti
 - Topic \rightarrow tutte le altre informazioni di cui hai bisogno



COSA DEVI COMPILARE

- **Target groups**
- Specific needs (dei target groups)
- **Expected** results
- Outcomes (effetti a breve termine)
- Impacts (effetti a lungo termine)
- Communication, dissemination & exploitation measures

Tempistiche per ogni box (15 min)

8-10 min per discutere/scrivere post-it (insieme o individualmente)

1-2 min per raggrupparli

6-3 min per raggiungere il consenso su quanto scritto



MIRO - ISTRUZIONI

-Link

- Gruppo 1: <u>https://miro.com/app/board/o9J_IDIhHIM=/</u>
- Gruppo 2: <u>https://miro.com/app/board/o9J_IDIvyOg=/</u>
- Come spostarsi sullo schermo? Tenere premuto su un punto e spostarsi con il mouse
- **Zoom** in/out? Rotellina del mouse o in basso a dx

Come scrivere?

- Prendi un post-it (tieni premuto e trascina)
- Doppio click sul post-it





...time is over!

- Si torna tutti in plenaria
- **II**II referente di ciascun gruppo presenta il lavoro fatto (5 min max)
- **Domande dai partecipanti**
- **G**Commenti all'esercizio





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