



Strategic and targeted support to incentivise talented newcomers to NMP projects under Horizon Europe

Tips on how to structure and write a Twinning proposal

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Agenda

- What is the Twinning call?
- How to register for the Twinning call
- Essential documents
- How to structure a Twinning Network
- How to structure a Twinning Proposal
- Ideas to consider for Section 1
- Ideas to consider for Section 2
- Ideas to consider for Section 3
- Other sources of information



What is the Twinning call? (1 of 3) - Two example successful Twinning proposals



• **SUSNANO**: Twinning to boost the scientific and innovation capacity of the Universiteti i Tiranes to develop sustainable nanosensors for water pollution detection.

 Widening country coordinator: Universiteti i Tiranes (AL).

Consortium partners:

 Univerzita Palackého v

 Olomouci (CZ) and Institut

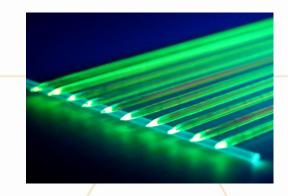
 Català de Nanociència i
 Nanotecnologia (ES)

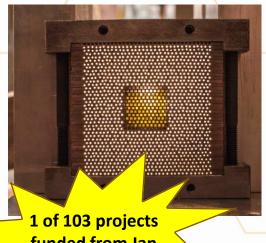


 TWISMA: Twinning with ISMA to develop innovative calorimeters for high energy physics based upon advanced scintillation materials.



Consortium partners:CERN and CNRS Lyon.





funded from Jan 2022 Twinning call

What is the Twinning call? (2 of 3)



- 1. Twinning aims to enhance networking activities between the research institutions of the Widening countries (e.g. Armenia) acting as co-ordinators and top-class leading counterparts at EU level by linking it with at least two research institutions from two different Member States or Associated Countries.
- 2. Twinning proposals (Budget: 0.5-1.5 million euro, 3 year duration) should have to clearly outline the scientific strategy for stepping up and stimulating scientific excellence and innovation capacity in a defined area of research as well as the scientific quality of the partners involved in the twinning exercise
- 3. The scientific strategy should include arrangements for formulating new (or ongoing) joint research project(s) in the scientific area of choice and describe how Twinning will take this research to a new stage, by enlarging its scope and/or the research partnership. If relevant, any links with sustainable development objectives are to be outlined.



What is the Twinning call? (3 of 3)

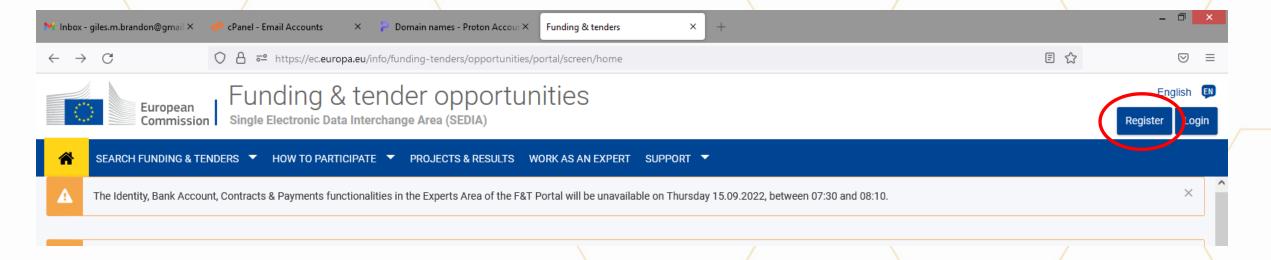


- 4. The scientific strategy should include a comprehensive set of activities to be supported. These should include at least a number of the following:
 - Short-term staff exchanges; expert visits and short term on-site or virtual training; workshops;
 conference attendance; organisation of joint summer school type activities; dissemination and outreach activities.
- 5. Proposals should also focus on strengthening the research management and administration skills of the coordinating institution from the Widening country. This should take the form of a dedicated work package or task, placing emphasis to specific activities.
- 6. A research component not exceeding 30% of the total Horizon Europe grant may include an exploratory research project. This will open opportunities for integrating smaller research activities and by this strengthening the commitment and the engagement of the twinning partners.



How to register for the Twinning call (1 of 2)



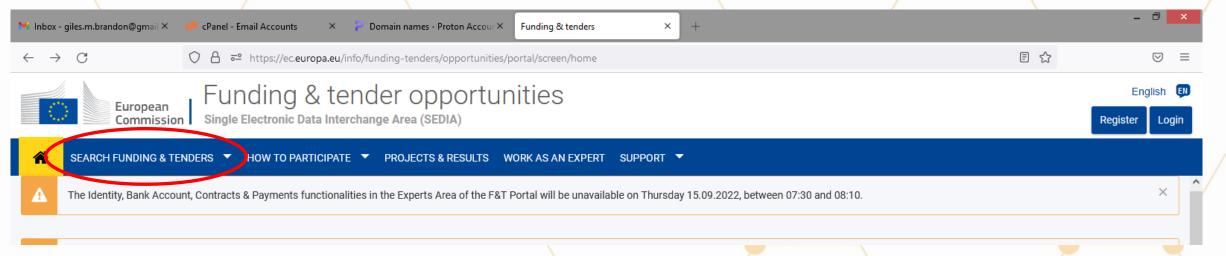


- If not already done, you need to register a) yourself (email address and password)
 and b) your institute (PIC number but check first to see if one already exists!) on
 the EC's Funding and Tender portal:
 - https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home
- If you need practical help, please contact David Hayrapetyan (david.hayrapetyan@rau.am) or Aram Manukyan (manukyan.ipr@gmail.com).



How to register for the Twinning call (2 of 2)





- 1. Search and register to the Twinning call in the EC's Funding and Tender portal.
 - Select "Search funding and tenders"
 - Set "Submission status" = Open for submission
 - Set "Programming period" = 2021-2027
 - Set "Filter by programme" = Horizon Europe
 - Set "Programme part" = Widening Participation and Spreading Excellence
 - Click on the hypertext link for the Twinning call





Two Essential Documents

Horizon Europe - Work Programme 2023-2024 Widening participation and strengthening the European Research Area

EN

Annex 11

Horizon Europe

Work Programme 2023-2024

11. Widening participation and strengthening the European A

DISCLAIMER

This draft has not been adopted or endorsed by the European Commission. Any views expressed are the preliminary views of the Commission services and may not in any circumstances be regarded as stating an official position of the Commission. The information transmitted is intended only for the Member State or entity to which it is addressed for discussions and may contain confidential and/or privileged material.

Print out the relevant pages and read repeatedly!





Horizon Europe Programme

Standard Application Form (CSA)

Application form (Part A)
Project proposal – Technical description (Part B)

Version 2.0 22 April 2021

Widening work programme 2023-2024

Standard application form for CSA (Coordination and Support Action)



CSA proposal - Technical Description (Part B)

- 1. Excellence
 - 1.1 Objectives [EC recommended length: 2 pages]
 - 1.2 Coordination and/or support measures and methodology [EC recommended length: 6 pages]

2. Impact

- 2.1 Project's pathways towards impact [EC recommended length: 4 pages]
- 2.2 Measures to maximise impact Dissemination, exploitation and communication
- 2.3 Summary [EC recommended length: 5 pages for Sections 2.2 and 2.3]
- 3. Quality and efficiency of the implementation
 - 3.1 Work plan and resources [EC recommended length: 10 pages including tables]
 - 3.2 Capacity of participants and consortium as a whole [EC recommended length: 3 pages]
- Don't deviate more than ½-1 page from the recommended limits!
- Start Section 1.1 on the proposal cover page!

Total length: only 30 pages!

How to structure a Twinning network





??? ???

Complementary Facilities

- ???

Include such a figure in Section 3.2

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Joint research on ???

Twinning Partner #2

Complementary Expertise

by Twinning Partner #1 to Twinning Partner #2

Knowledge and training provided

Knowledge and training provided by Twinning Partner #2 to

Twinning Partner #1

Complementary Expertise

Twinning Partner #1

???

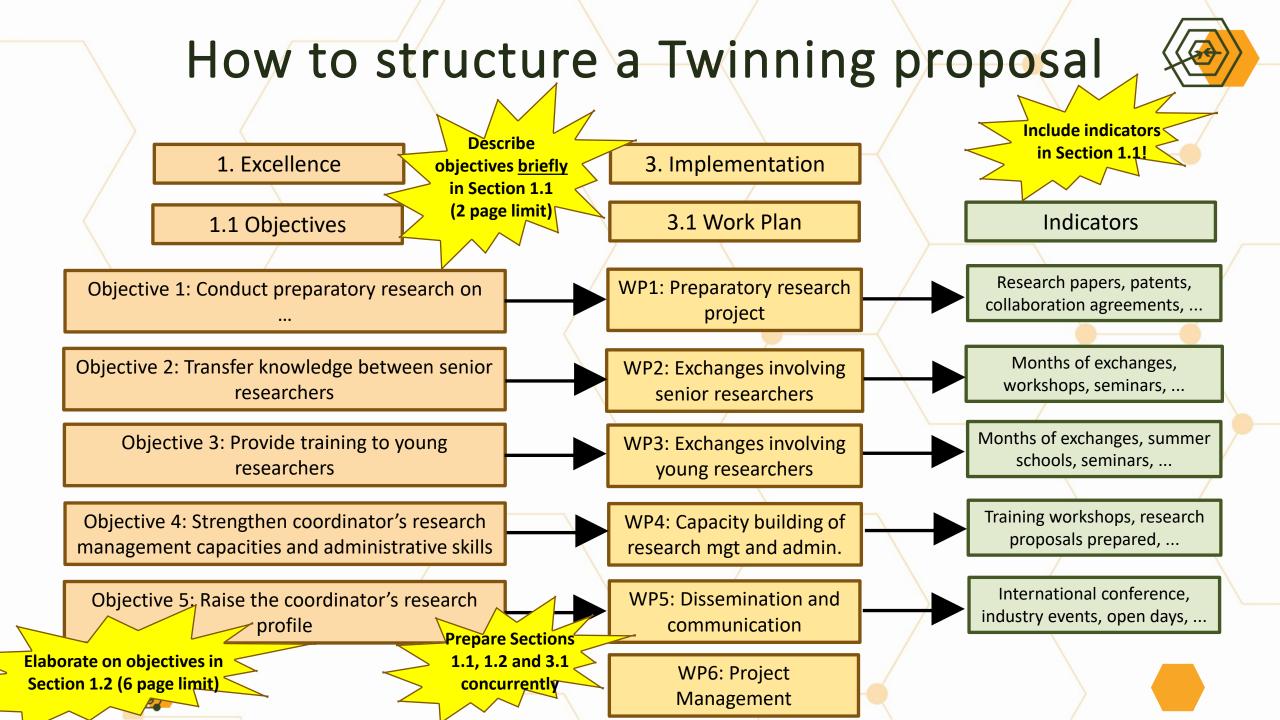
Complementary Facilities

Complementary Facilities

??????

??????





Section 1: Excellence



- Section 1.1
 - Demonstrate proposal's pertinence to the work programme
- Section 1.2
 - Why the research is important from a national and EU perspective
 - SWOT analysis
 - Specify scientific targets for the exploratory research project





Demonstrate proposal's relevance to the work programme (Section 1.1)

Scope of the Twinning call	How/where this proposal addresses the scope of the call
Twinning aims to enhance networking activities between the	Coordinator: ?? (Widening country)
research institutions (RIs) of the Widening countries and top- class leading counterparts at EU level by linking it with at least	Two leading RIs: ?? (Country), ?? (Country)
two research institutions from two different MS or AC.	
Twinning proposals should clearly outline the scientific strategy	The proposal's scientific strategy is focused
for stepping up and stimulating scientific excellence and	on ?? where the Twinning partners have
innovation capacity in a defined area of research as well as the	world class researchers in the domain.
scientific quality of the partners involved.	
Extract other important requirements from the call text	Indicate where the proposal addresses the
	requirement e.g see Section 1.2
Etc	Etc

Include such a table in Section 1.1







- Concisely describe why the research topic is important (1/2 1 page)
- National level
 - Reference SMART specialization strategy (S3) and/or
 - Reference national research and innovation strategy/policies
- EU level
 - Reference research and innovation priorities in Horizon Europe and/or
 - Reference European Partnership's research and innovation priorities
 e.g. Processes4Planet







Be specific = More convincing!<

Strengths (S) and Weaknesses (W) of Coordinator

Strengths

- Strong expertise in a wide range of logistics and logistics 1. technology related research topics.
 - Good cooperation of the Institute of Logistics with 2. various industrial partners (e.g. automotive, electronics, manufacturing, logistics).

 3.
- 3. Free access to the university's facilities and equipment (e.g. manufacturing engineering, ICT, logistics, simulation computing, etc.)
- 4. Good contact with national and European industrial 5. actors with interest in the Institute research and development activities

<u>Weaknesses</u>

- Low financial resources received directly from national 1.
 government and significant reduction of national funding for research and innovation
 - Lack of job opportunities for young researchers leads to decrease in capability to fully exploit recent developments in logistics
 - Lack of communication with the Innovation Technology
 Transfer Centre at the Coordinator.
- 4. Lack of knowledge and experience of innovation and 5. project management amongst researchers
- 5. Lack of R&D proposal writing skills and low participation to international projects

Opportunities (O) and Threats (T) faced by Coordinator

Opportunities

- 1. Potential to participate in logistics and ICT technologies projects funded by national authority
- Potential to participate in Horizon Europe research and innovation actions
- 3. Potential for further research capacity building via European Structural Funds
- 4. Potential to develop RTD projects with international research organisations as well as private clients
- Potential to become a top European actor in logistics research and innovation
- Threats1. Fluctuation in national R&D funding due to changing
 - priorities of government budget formation

 High competition to access European research projects
- and lack of trained researchers and managers to fully exploit opportunities with Horizon Europe projects
- 3. Lack of trained researchers and managers to fully exploit opportunities with Horizon Europe projects
- 4. Low start-up and spin-off activity
- Lack of public-private partnerships with national and European companies resulting in a reduced transfer of knowledge and technologies to the industry



Explain how your

scientific strategy

(objectives)

addresses the

SWOT



Specify scientific targets for the exploratory research project (Section 1.2)

electronics related project

\int	TADF material	PL Max. in	PLQY in	Max.	Max.	OLED Lifetime	
	as OLED	toluene,	hosted film,	OLED	OLED	LT50@3000cd/m²,	
\mathcal{A}	emitters	nm	%	EQE, %	PE, Im/W	hrs	
	Blue	460-490	>60	>15	>20	>500	
	Green	510-540	>70	>20	>80	>1000	
	Red	610-650	>60	>15	>20	>1000	

Demonstrate how your exploratory research will be at the state-of-the-art or beyond ...



Section 2: Impact



- Section 2.1
 - Contribution to expected outcomes (qualitative and quantitative)
 - Potential barriers arising from factors beyond the scope and duration of the project
- Section 2.2
 - Dissemination and Communication Plan
 - Strategy for the management of intellectual property





Qualitative contribution to expected outcomes (Section 2.1)

Write about 2 pages in a narrative style

- Outcome 1: Improved excellence capacity and resources in Widening countries enabling to close the still apparent research and innovation gap within Europe.
- Outcome 2: Enhanced strategic networking activities between the research institutions of the Widening countries and at least two internationally-leading counterparts at EU level.
- Outcome 3: Raised reputation, research profile and attractiveness of the coordinating institution from the Widening country and the research profile of its staff.
- Outcome 4: Strengthened research management capacities and administrative skills of the staff working in institutions from the Widening country.
- Outcome 5: Improved creativity supported by development of new approaches in R&I collaboration, increased mobility (inwards and outwards) of qualified scientists.





Quantitative contribution to expected outcomes (Section 2.1)

Use the KPIs from Section 1.1

Expected Outcomes	WP	Performance Indicators	Target
Outcome 1: Improved excellence capacity and resources in Widening countries enabling to close the still apparent research and innovation gap within Europe.	1, 2, 3 and 5	 Coordinator's senior researchers trained in Research Topic ??? Coordinator's junior researchers trained in Research Topic ??? Summer schools hosted by partners Joint research papers published in international peer-reviewed journals Joint research papers presented at international conferences Patents submitted by Coordinator Collaboration agreements between Coordinator and private companies 	;; ;; ;; ;; ;;
Outcome 2: Enhanced strategic networking activities between the research institutions of the Widening countries and at least two internationally-leading counterparts at EU level. Outcome 3	1, 2, 3, 4 and 5	 Total person-months (PMs) of exchanges of senior researchers between partners Total PMs of exchanges of junior researchers between partners Total PMs of exchanges of mgt. and admin. staff between partners Summer schools hosted by partners Joint research papers published in international peer-reviewed journals Joint research papers presented at international conferences etc 	?? ?? ?? ??





Potential barriers arising from factors beyond the scope and duration of the project (Section 2.1)

- Scientific related barriers
 - Describe 3-4 challenges/barriers specific to the research topic and/or
 - Describe 3-4 challenges/barriers identified by relevant European Partnerships e.g. Made in Europe
- Country related

Describe 3-4 challenges/barriers faced by your country's research and innovation system

For <u>each</u> challenge/barrier, describe a mitigation measure the project will take!





Dissemination and Communication Plan (Section 2.2)

Dissemination and Communication Plan				
Project result	Partners Concerned	Dissemination Activity	Target audience	Indicator & Target
Project leaflet and	Coordinator and	Distribute during international	Scientists, engineers	250+ leaflets
poster	Twinning Partners	conferences (e.g. X, Y, Z, etc.), training	and general public	distributed,
		workshops and outreach events		25+ posters displayed
Press conferences	Coordinator	Press conferences at the start and end of	Regional and	2 conferences,
		the project	national news media	5+ journalists
			(radio, TV and print	
			newspapers)	
Project news		Publish project news releases and		2+ press releases
	Twinning Partners	distribute through broader scientific	and general public	
		news channels		\
Project website	/	Publish project summary, regular news	Scientists, engineers	2500+ visitors
	Twinning Partners	and event updates on website	and general public	
etc	etc	etc	etc	etc /



Strategy for the management of intellectual property (Section 2.2)



Include tables that capture ownership of background and foreground knowledge!

p of background and Background Knowledge Background Knowledge	Partners			
Dackground knowledge	Concerned			
Device architecture for state-of-the-art OLEDs, especially using phosphorescent emitters	Coordinator			
Performance impact of parameter variations on OLED device performance for typical stack				
architectures (trade-offs etc.)				
Physico-chemical properties required from OLED materials for good device performance				
(e.g. purity, energy levels, glass transition temperature etc.)				
etc	etc			

Possible Foreground Knowledge	Partners Concerned	Other Partners claiming Ownership Rights
Synthesis routes, scale up and purification processes for sterical shielding of	Coordinator	Partner #2
compounds		
Stack architectures optimised for TADF plus shielded emitter concept	Coordinator	-
Fluorescent core structures and shielded emitters based on these for differen	t Partner #1	Partner #2
emission colours	/	
etc	etc /	etc



Section 3: Implementation

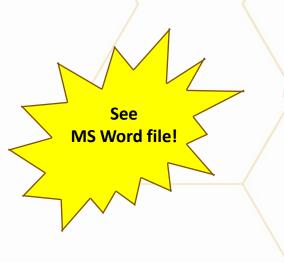


- Section 3.1
 - Work package (WP) descriptions
 - WP2 and WP3 (Exchanges involving senior/young researchers)
 - Budget













WP2 and WP3 (Exchanges involving senior/junior researchers) (Section 3.1)

Show you have a concrete plan

- include secondment tables!

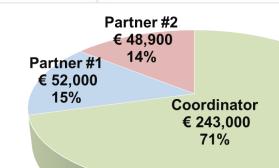
~	Year	Coordinator		Partner #1	
<mark>/</mark>	Teal	Researcher	PMs	Researcher	PMs
	Danny Wilson		2	Helene Arnaud	1
	1	Graham Mills	0.5	Francoise Hoss	1.25
	1	Rebecca Moore	1.25	Claude Hollande	0.5
		Sharon Raymond	0.25	Benoit Leroy	2
		Danny Wilson	0.5	Helene Arnaud	0.5
	2	Graham Mills	0.75	Francoise Hoss	1
		Rebecca Moore	1	Claude Hollande	2
		Sharon Raymond	2	Benoit Leroy	1.5
		Danny Wilson	0.5	Helene Arnaud	0.25
	3	Graham Mills	0.5	Francoise Hoss	0.75
		Rebecca Moore	2 /	Claude Hollande	1.5
		Sharon Raymond	1.25	Benoit Leroy	0.75



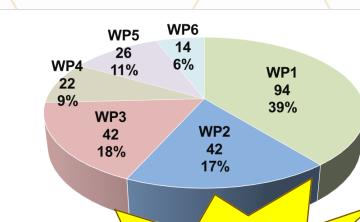
Budget (Section 3.1)



Include some pie charts to illustrate how your budget and efforts (PMs) are allocated!



For WP with the preparatory research project (i.e. WP1) show that it consumes below 30% total budget and that the coordinator has over 70%!



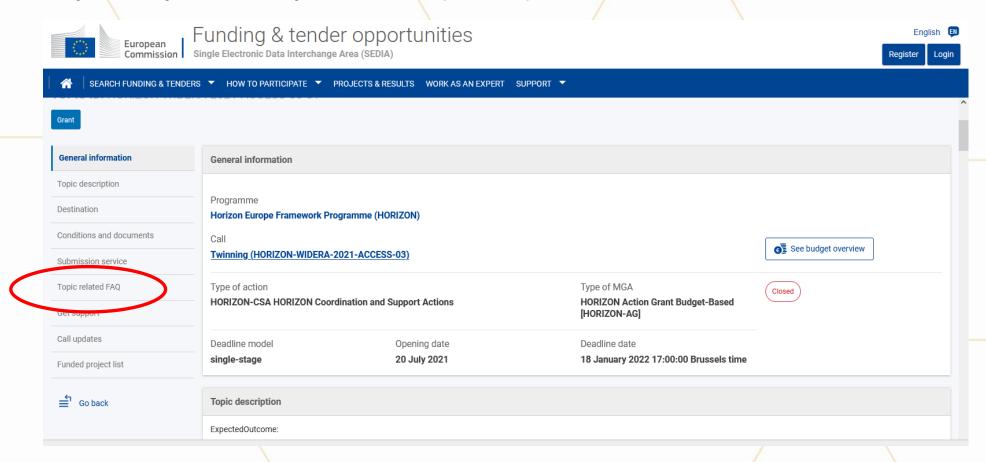
For WP for project
management (i.e. WP6), keep
it within 5-7% range.







Frequently asked questions (FAQs)

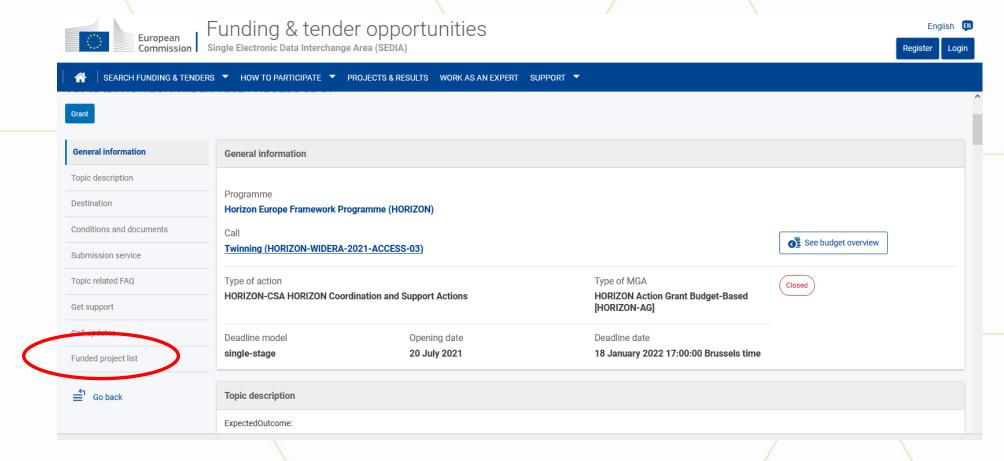








Investigate proposals funded under previous calls

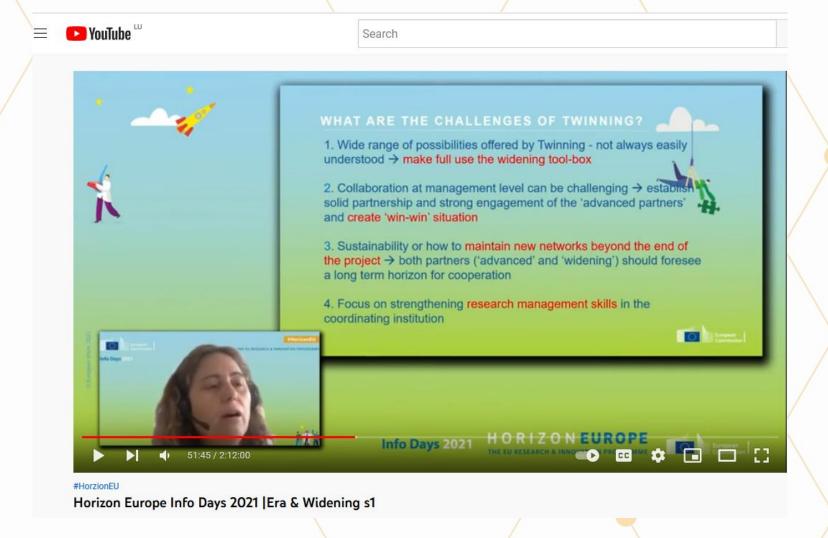








Check to see if the EC published a Youtube video about the call

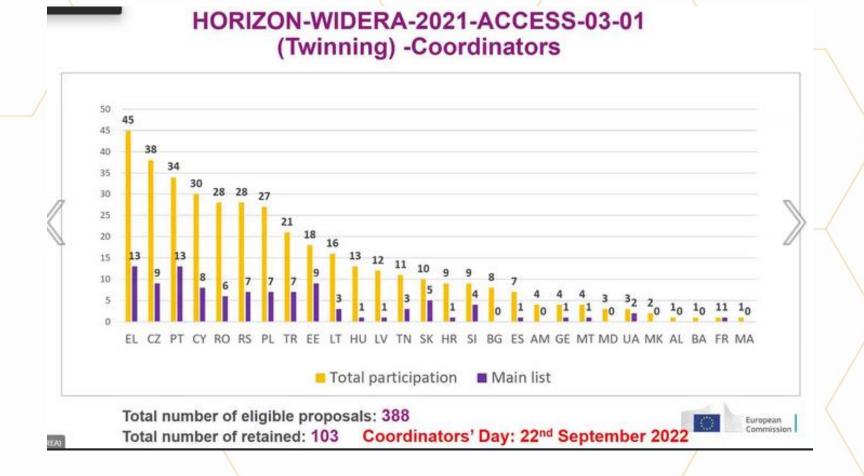




Other Sources of Information (4 of 4)



Register for e-newsletters from NCP WIDE.NET (<u>www.ncpwide.net</u>)







Questions and Answers about Twinning call (5-10 minutes)



