

# Design Study Opportunity in Horizon Europe

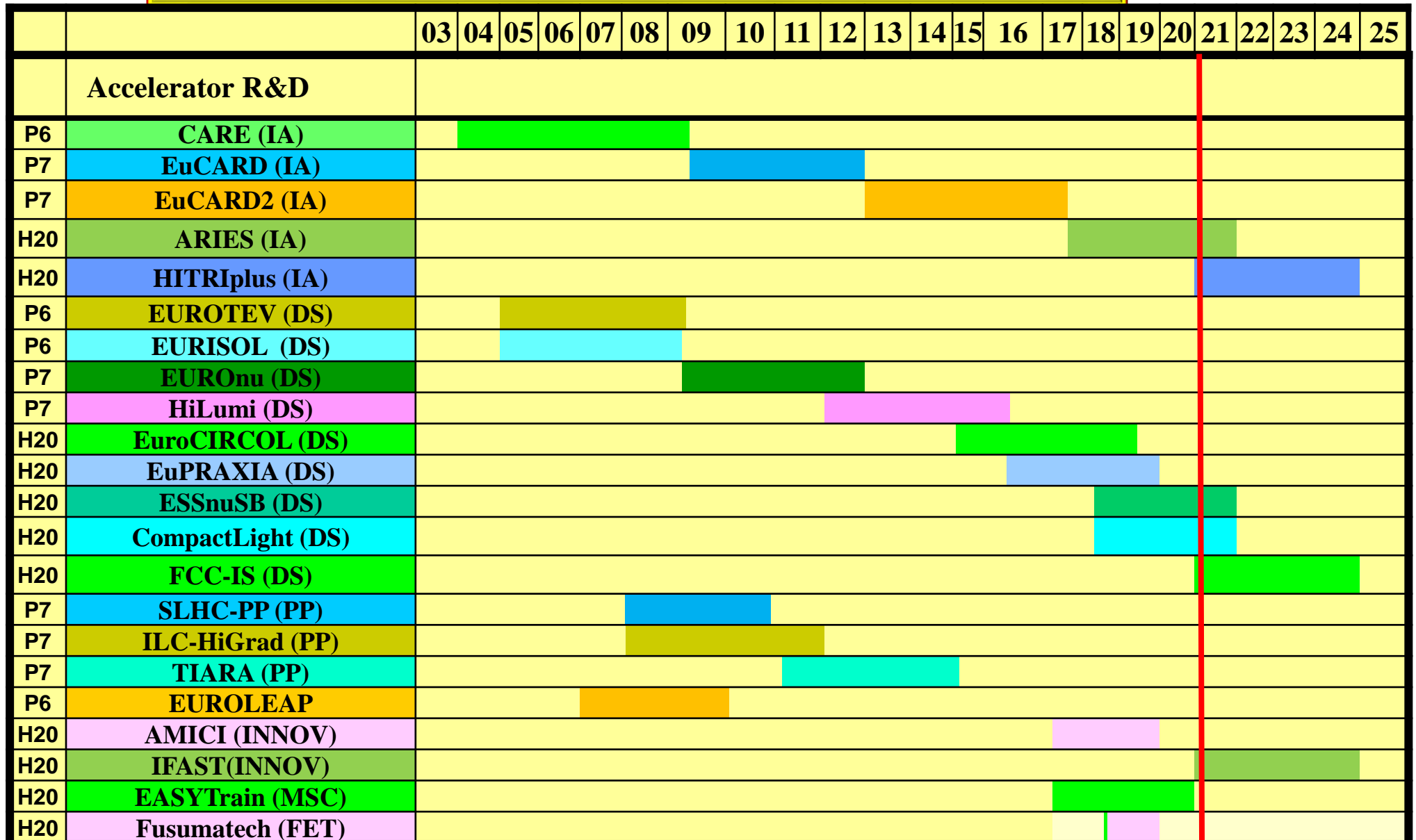
**R. Aleksan**  
**Workshop**  
**March 25, 2021**



CEA (FR), CERN (INO), CNRS (FR), CIEMAT(SP), DESY (DE) , GSI (DE), INFN (IT),  
PSI (CH), STFC (UK), Uppsala U (SW)\*, IFJ-PAN (PL)\*\*, RTU (LT)\*\*\*

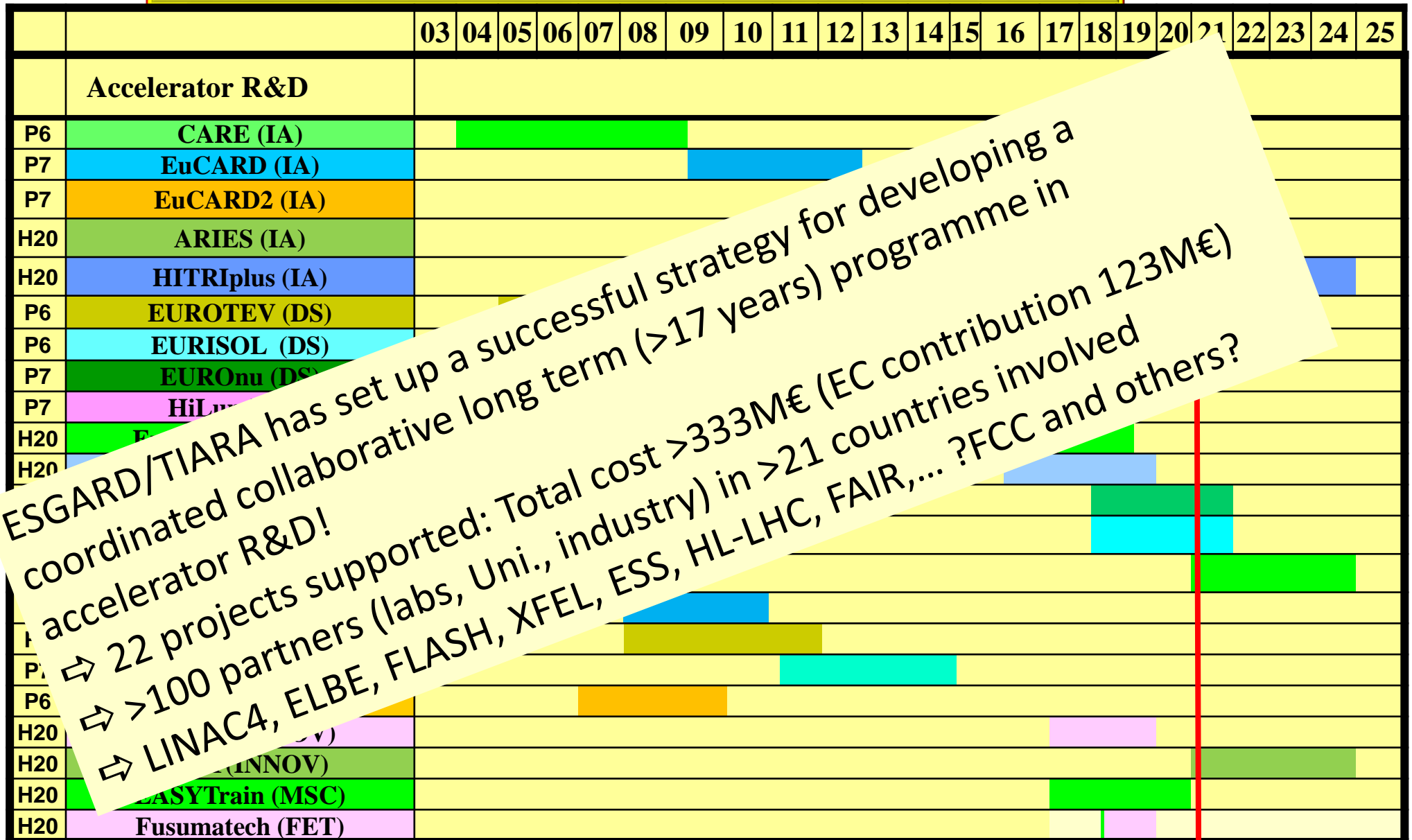
\* Representing also consortium of Nordic country institutes  
\*\* Representing also consortium of Polish institutes  
\*\*\* Representing also consortium of Baltic country institutes

## Summary of Past and on-going activities (History)



Selecting and Supervising the preparation of 22 projects, with success rate ~100%

# Summary of Past and on-going activities (History)



ESGARD/TIARA has set up a successful strategy for developing a coordinated collaborative long term (>17 years) programme in accelerator R&D!

⇒ 22 projects supported: Total cost >333M€ (EC contribution 123M€)

⇒ >100 partners (labs, Uni., industry) in >21 countries involved

⇒ LINAC4, ELBE, FLASH, XFEL, ESS, HL-LHC, FAIR,... ?FCC and others?

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## Horizon Europe (WP21-22 anticipated call)

**WARNING:** Situation in Brussels is changing dramatically with a large reorganization of the Research Division

At this time, there is a draft Work Programme in which Design Study is included :

It is called :

« **Destination 1:** Research infrastructure concept development »

Main information

<b>Design Study call denomination :</b>	<b>HORIZON-INFRA-2022-DEV-01-01</b>			
Total Budget	24 M€			
Max budget/project	<b>3 M€</b>			
Date Call opening	2021 Nov. 10			
Deadline Call	<b>2022 March 24</b>			
Expected funded projects	10			

# Destination 1: Research infrastructure concept development

Main characteristics of the call:

SCOPE	OUTCOME
<ul style="list-style-type: none"><li>This topic aims at supporting the <b>development of new concepts for the next generation of research infrastructures</b> of European interest, single/multi sited, distributed or virtual, that none or few countries might individually be able to afford. <b>All fields of research can be considered.</b></li></ul>	<ul style="list-style-type: none"><li><b>Sound science cases for new research infrastructures</b>, including expected scientific breakthrough, gap analysis and feasibility/design studies to support planning and decision making at the national level (e.g. funding bodies, governments) and at European level (e.g. ESFRI)</li></ul>
<ul style="list-style-type: none"><li>Proposals for RI concept development will tackle all <b>key questions concerning the technical and conceptual feasibility</b> of new or upgraded fully fledged user facilities.</li></ul>	<ul style="list-style-type: none"><li><b>better alignment of the development of the research infrastructure landscape with the advancement of excellent science and frontier research</b></li></ul>
	<ul style="list-style-type: none"><li>new services and access opportunities available to the research community, allowing to better tackle scientific and societal challenges.</li></ul>

# Possible DS topic relevant for $\mu$ -collider discussed by TIARA

Topic 1	Topic 2
<b><math>\mu</math> Cooling Test Infrastructure</b>	<b>« <math>\nu</math>Storm » like Infrastructure</b>
Scope : Development of a Design Study of an Infrastructure aiming at demonstrating the muon cooling method	Scope : Development of a Design Study of an infrastructure aiming at storing $\mu$ in a ring and produce low energy neutrino beams
Objective & Timeline : Establish a Design in time for the next ESPPU in 2026-2027	Objective & Timeline : Establish a Design in time for the next ESPPU in 2026-2027
If successful, the funding from the EC would start end 2022 with a duration of 3 or 4 years	If successful, the funding from the EC would start end 2022 with a duration of 3 or 4 years

Proposed by ESSnuSB community



## Conclusion

There is the possibility to get funding for Design Studies in the Work Programme 2021-2022 of the new EU Framework Programme (Horizon Europe). But our bids should be coordinated to avoid internal competition, likely to be lethal!

Besides providing some (limited) funding (3 M€) for carrying out Design Studies, it gives visibility at the European level.

The call deadline is March 24, 2022. The timing for the realization of the successful projects would be timely with the anticipated next ESPPU.

TIARA will continue discussing the possible DS to encourage/support at its next meeting end June 2021.