EUROPEAN PLASMA RESEARCH ACCELERATOR WITH EXCELLENCE IN APPLICATIONS



WP9: RF, Magnets & Beamline Components

Sergey Antipov (DESY), Federico Nguyen (ENEA) EuPRAXIA PP Kick-Off Meeting





This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101079773







- Compact magnets (both electromagnets and permanent magnets) for beam capture and transport
- Radiofrequency high power sources and structures for conventional acceleration and phase space manipulation
- Magnetic undulators for free-electron laser generation

High quality, high stability electron and photon beams in compact physical layout



Participants



Staff effort per participant

Grant Preparation (Work packages - Effort screen) - Enter the info.

Participant	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9
1 - INFN	108.00	6.00	10.00	54.00			6.00	6.00	6.00
2 - CNR		2.00						4.00	
3 - ELETTRA	4.00				30.00				
4 - ENEA									4.00
5 - UNI SAPIENZA						30.00			6.00
6 - UNITOV					48.00				
7 - CEA								37.00	
8 - CNRS			6.00			22.00		22.00	
9 - THALES									
10 - DESY			6.00					6.00	18.00
19 - IP-ASCR								24.00	6.00
20 - CERN				2.00					2.00
21 - IASA		8.00	8.00	8.00					8.00
22 - CLPU								2.00	2.00
23 - HUJ									
24 - Fraunhofer	2.00								
25 - ALBA-CELLS									4.00
31 - UKRI									10.00
32 - ULIV		46.00							
33 - USTRATH									
34 - UOXF									
Total Person-Months	123.00	68.00	30.00	64.00	102.00	52.00	60.00	179.00	66.00

10 institutions from across Europe

15 members in the mailing list so far; additional members welcome

Lead beneficary



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Lead beneficary

66 person-months over 4 years





- Specify in detail Excellence Centers
- Review potential prototype R&D, identify the most relevant concepts and prototypes for the TDR phase
- Coordinate funding requests at national and European level

- Assess technical readiness level of RF, magnet, undulator technology
- Update concepts, parameters towards TDR

Has to start now





- What R&D projects toward TDR shall be pursued?
- Do CDR concepts and results need to be updated?
- Can WP9 help preparing the case and supporting R&D for the 2nd site (WP16)?
- Can WP9 help the Fracsati project (WP15) by prototyping, tests, etc, what budget would be needed?







M0 PP begins 01.11.22

M12	Report on organizational structures to be funded from national/bilateral/european level for RF, magnets & beamline components
M24	Report on technical results achieved in the field of RF, magnets & beamline components
M42	Technical Readiness Report and maturity assesement of the development of RF magnets & beamline components

M24 Milestone Report: Update of concepts for the TDR





- Identify partners' interests, resources, potential contributions, and expectations from the WP
- Form WP teams for individual topics