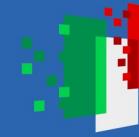




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Outline

- EuAPS in the context of EuPRAXIA & short history on EuAPS genesis
- Project description from PM perspective
- Cost & Schedule Baseline
- Earned Value Management
- PNRR Rules
- General Conclusions

EuPRAXIA

Advanced Photon Sources



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EuPRAXIA@SPARC_LAB

EuAPS

EuPRAXIA - PP

EuPRAXIA Building

EuPRAXIA - DN

Existing Facilities @LNF
supporting EuPRAXIA R&D

SPARC_LAB
TEX
FLAME

EuPRAXIA -
Beam Driven Pillar
Eu- Research
Infrastructure



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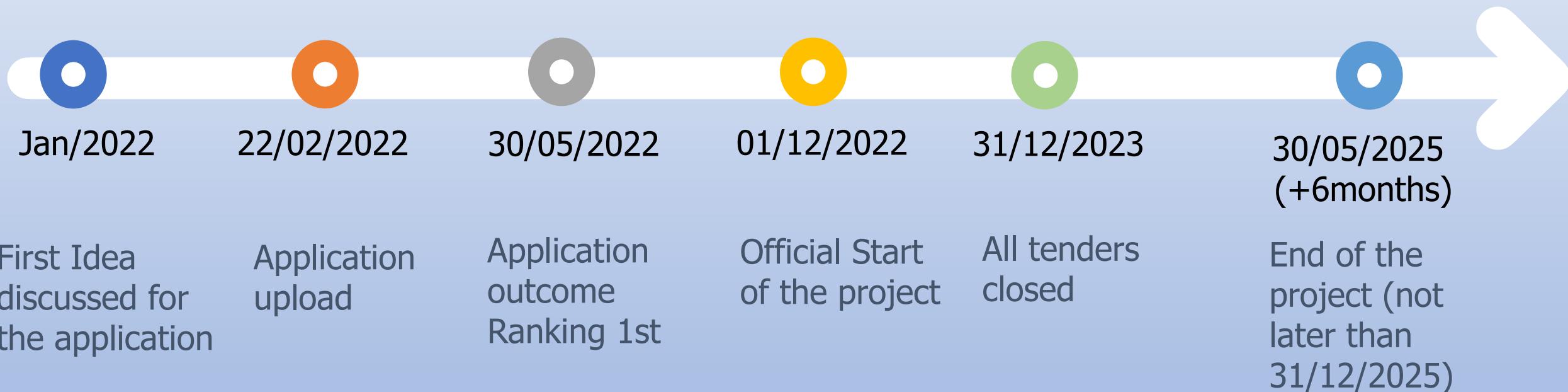
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Short History





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EuAPS Scientific Coordinator:
M. Ferrario (INFN-LNF)
EuPRAXIA/EuAPS Integration:
R. Assmann (DESY & INFN)



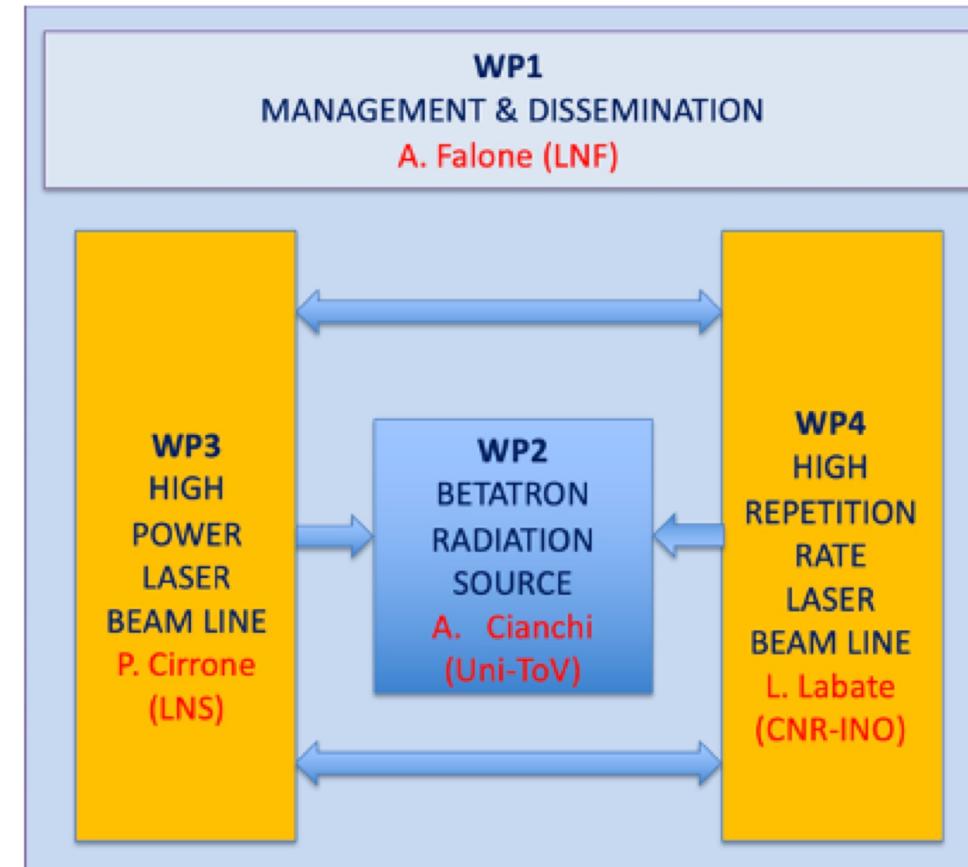
Istituto Nazionale di Fisica Nucleare



Consiglio Nazionale delle Ricerche



Università di Roma
Tor Vergata



Scientific Advisory
Committee

Operating Units Board

Scientific and Technical
Board



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Project Description - WBS

PROJECT LEADER, PI
M.Ferrario

WP.1 Project Management & Dissemination, A.Falone

- 1.1 Project & Financing Management
 - 1.2 Dissemination & Communication
 - 1.3 Data Management
 - 1.4 Integration with EuPRAXIA ESFRI
- PROJECT

WP.2 - Betatron Source
A.Cianchi (UniTov)

- 2.1 S2E Simulations
- 2.2 Plasma source
- 2.3 Timing & Synchronization
- 2.4 Online Photon Diagnostics
- 2.5 User end station
- 2.6 Offline Advanced photon diagnostics

WP.3 High Power Laser
Beamline G.A.P.Cirrone (INFN-LNS)

- 3.1 Clean room installation
- 3.2 Laser design and realization
- 3.3 Target system for high repetition rate
- 3.4 Plasma diagnostics
- 3.5 Secondary beam diagnostics

WP.4 High Repetition Rate
Laser Beamline, L.Labate (CNR)

- 4.1 High rep.rate laser system
- 4.2 Diagnostics, transport and beam conditioning
- 4.3 High rep.rate laser infrastructure end station

Sub-tasks are organized to produce 1 final deliverable and several intermediate milestones (objectives) that are associated to the payments (i.e. Planned Value).



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Budget baseline

Costs included in the request for funding (€)			
	To be located within the eight southern regions	To be located outside the eight southern Regions	Total requested grant
Fixed term personnel specifically hired for the project	270.000,00	1.258.000,00	1.528.000,00
Scientific instrumentation and technological equipment, software licenses and patent	6.917.812,47	10.865.386,00	17.783.198,47
Open Access, Trans National Access, FAIR principle implementation	0,00	0,00	0,00
Civil infrastructures and related systems	1.300.006,38	280.000,00	1.580.006,38
Indirect costs, including running costs	575.081,15	869.302,00	1.444.383,15
Training activities	0,00	15.000,00	15.000,00
Total	9.062.900,00	13.287.688,00	22.350.588,00



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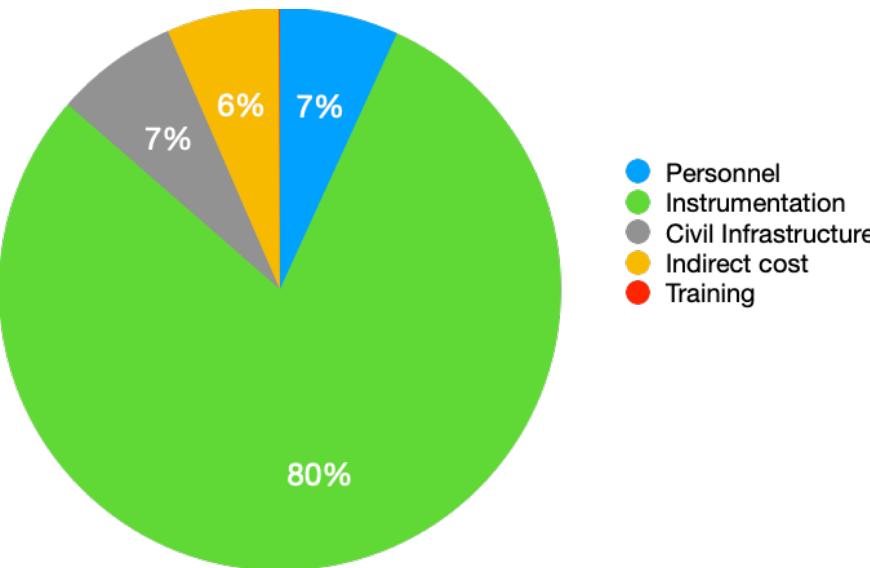


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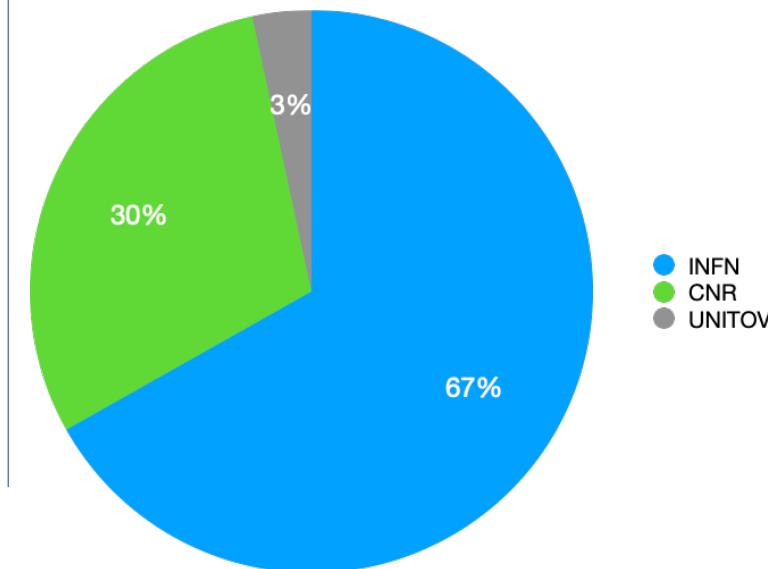


Budget baseline

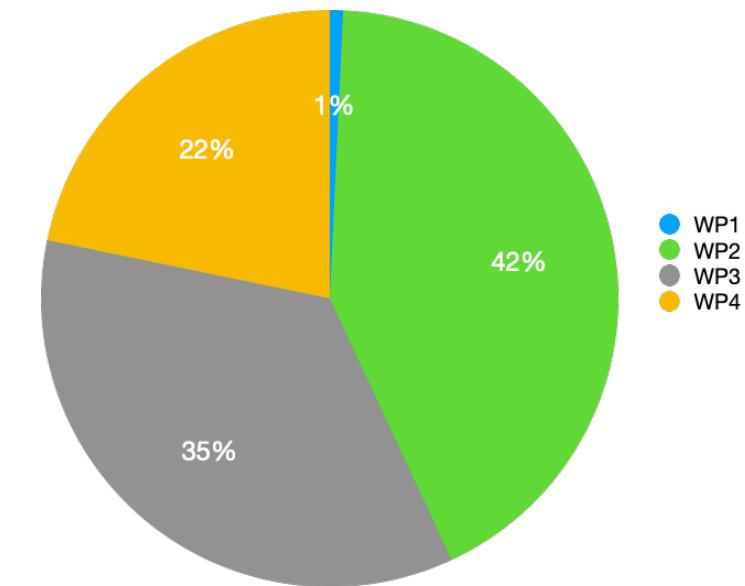
Distribution per item



Distribution per institution



Distribution per WP





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Geographical distribution



CNR-INO, Pisa
CNR-ISM, Potenza



Rome

INFN – LNF, Frascati
UniTOV, Roma
CNR – ISM, Montelibretti



Milan

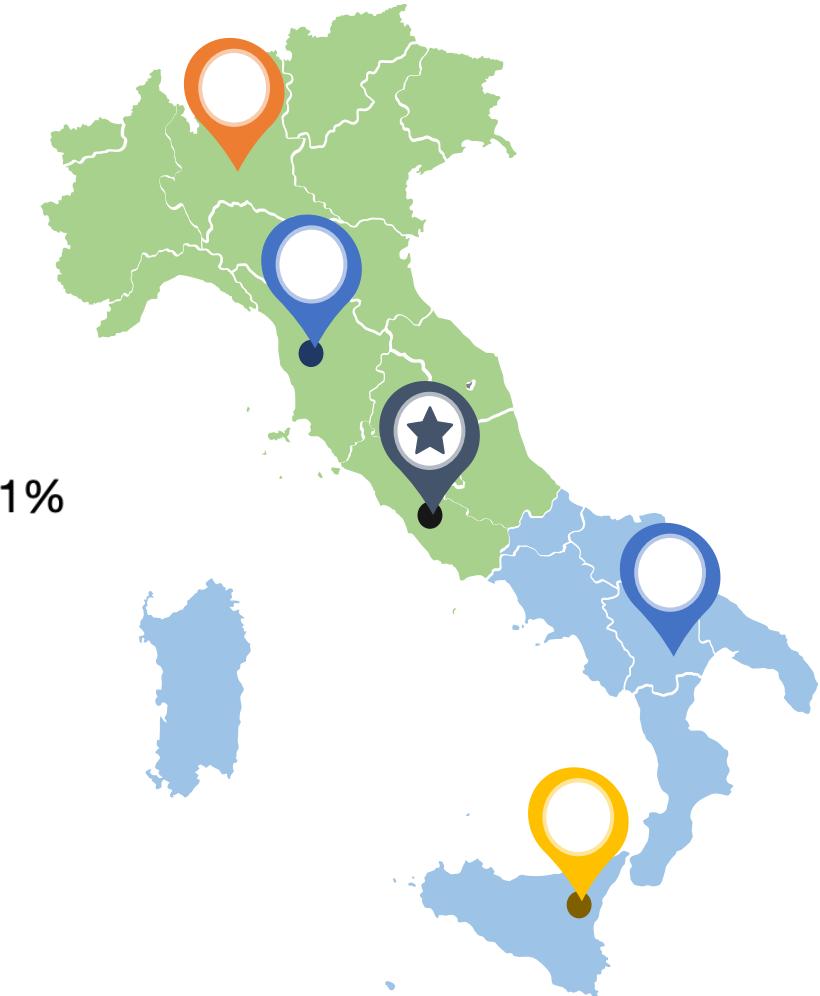
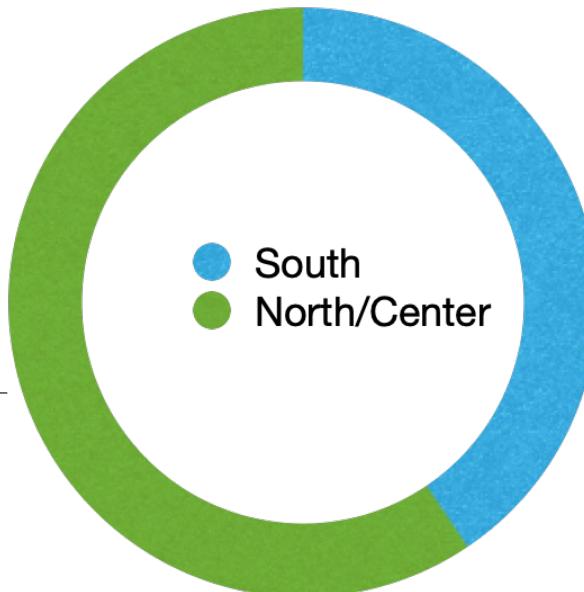
INFN-MI

59% —



Catania

INFN-LNS





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WP 1 - Project Management & Dissemination @LNF

WP	Bimester	Milestone ID	Milestone Name	Costs (€)
1	1	M.1.1.1	Approval of the Project Management Plan	0,00
	3	M.1.3.1	Meeting on defining EuAPS Data Policy	16.873,00
	4	M.1.2.1	Website publication	23.046,00
	6	M.1.1.2	Hiring of the infrastructure manager	28.396,15
	12	M.1.4.2	Draft Report on EuAPS Results for EuPRAXIA TDR	62.965,85
	14	M.1.3.2	Meeting on EuAPS Data Management Experience	34.569,00
				TOTALE 165.850



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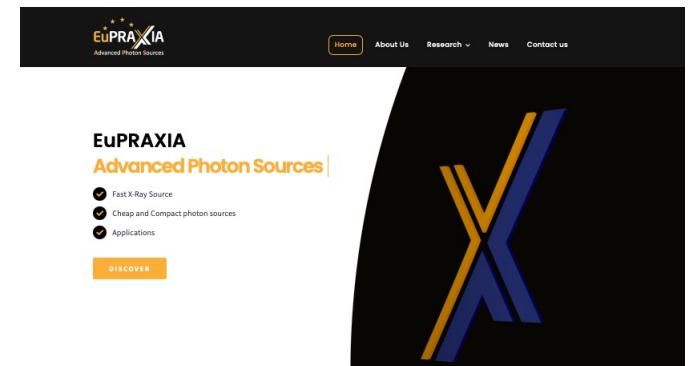
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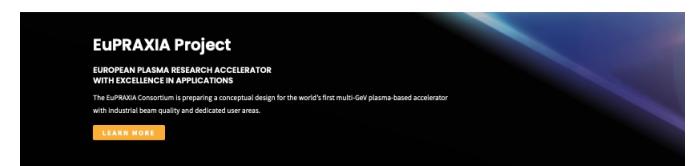
EuAPS Website

EuAPS website is available now www.euaps.infn.it

It will be linked to the main eupraxia project website: <https://www.eupraxia-facility.org>



Research
The EuPRAXIA Advanced Photon Sources (EuAPS) project, led by INFN in collaboration with CNR and University of Tor Vergata, foresees the construction of a laser-driven "betatron" X Ray user facility at the LNF SPARC_LAB laboratory. EuAPS includes also the development of high power (up to 1 PW at LNS) and high repetition rate (up to 100 Hz at CNR Pisa) drive lasers for EuPRAXIA. EuAPS has received a financial support of 22.3 M€uro from the PRRI plan on "creation of a new RI among those listed in INPII with medium or high priority" and has received the highest score for the action 3.1.1 of the ESFRI plan on "Physical Sciences and Engineering".



EuAPS Partners



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Operating Unit

Special thanks to Sara Reda & Susanna Bertelli



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WP 2 – Betatron Source @ LNF (except 267000@MI & 400.000@UniTOV)

WP	Bimester	Milestone ID	Milestone Name	Costs (€)
2	3	M.2.4.1	Specs for test chamber and electron and ion spectrometers; call for tenders	0,00
	4	M.2.1.1	Hardware commissioning	302.452,00
	4	M.2.4.2	Installation of the electron and ion spectrometers in the test chamber	83.816,31
	4	M.2.6.1	Design of cross correlation methods	395.900,00
	6	M.2.2.1	Capillary - gas jet test report	1.450.920,00
	6	M.2.3.1	Procurement of phase noise analyzer	162.675,00
	6	M.2.5.1	Design user endstation	181.900,00
	8	M.2.4.3	Commissioning of the electron and ion spectrometers	838.165,24
	10	M.2.3.2	Procurement of laser oscillator	391.620,00
	12	M.2.2.2	Laser transport	3.598.303,00
	12	M.2.6.2	Advanced Photon Diagnostics Commissioning	203.300,00
	13	M.2.5.2	Assembly of the chamber with instrumentation	524.300,00
	13	M.2.2.3	Laser Transport	773.041,00
	14	M.2.4.4	Commissioning of the electron and ion spectrometers	263.936,90
	15	M.2.1.2	Numerical characterization of betatron source completed	184.397,00
	15	M.2.2.4	Plasma Source Commissioning	47.080,00
	15	M.2.4.5	Report on pilot experiments with the electron and ion spectrometers	12.481,55
	15	M.2.5.3	Test end station report	42.800,00
				TOTALE 9.457.088,00



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EuPRAXIA
Advanced Photon Sources

WP 3 High Power Laser System beam line

WP	Bimester	Milestone ID	Milestone Name	Costs (€)
3	2	M.3.1.1	Clean room design	0,00
	3	M.3.2.1	Design	160.500,00
	5	M.3.2.2	Procurement and first payment	1.005.801,67
	5	M.3.4.1	Design and procurement	428.000,00
	5	M.3.1.2	Procurement and first payment	278.191,66
	7	M.3.1.3	Second payment	417.300,00
	8	M.3.2.3	Second payment	1.508.702,50
	9	M.3.5.1	Design, procurement and mechanical realization of diagnostic	428.000,00
	10	M.3.1.4	Third payment	417.300,00
	12	M.3.1.5	Assembling, commissioning and fourth payment	278.200,00
	12	M.3.2.4	Third payment	1.508.702,50
	12	M.3.3.1	Design and procurement	428.000,00
	15	M.3.2.5	Assembling and commissioning and fourth payment	1.005.801,67
	15	M.3.3.2	Realization and tests	0,00
	15	M.3.5.2	Calibration under conventional beams	0,00
				TOTALE 7.864.500,00



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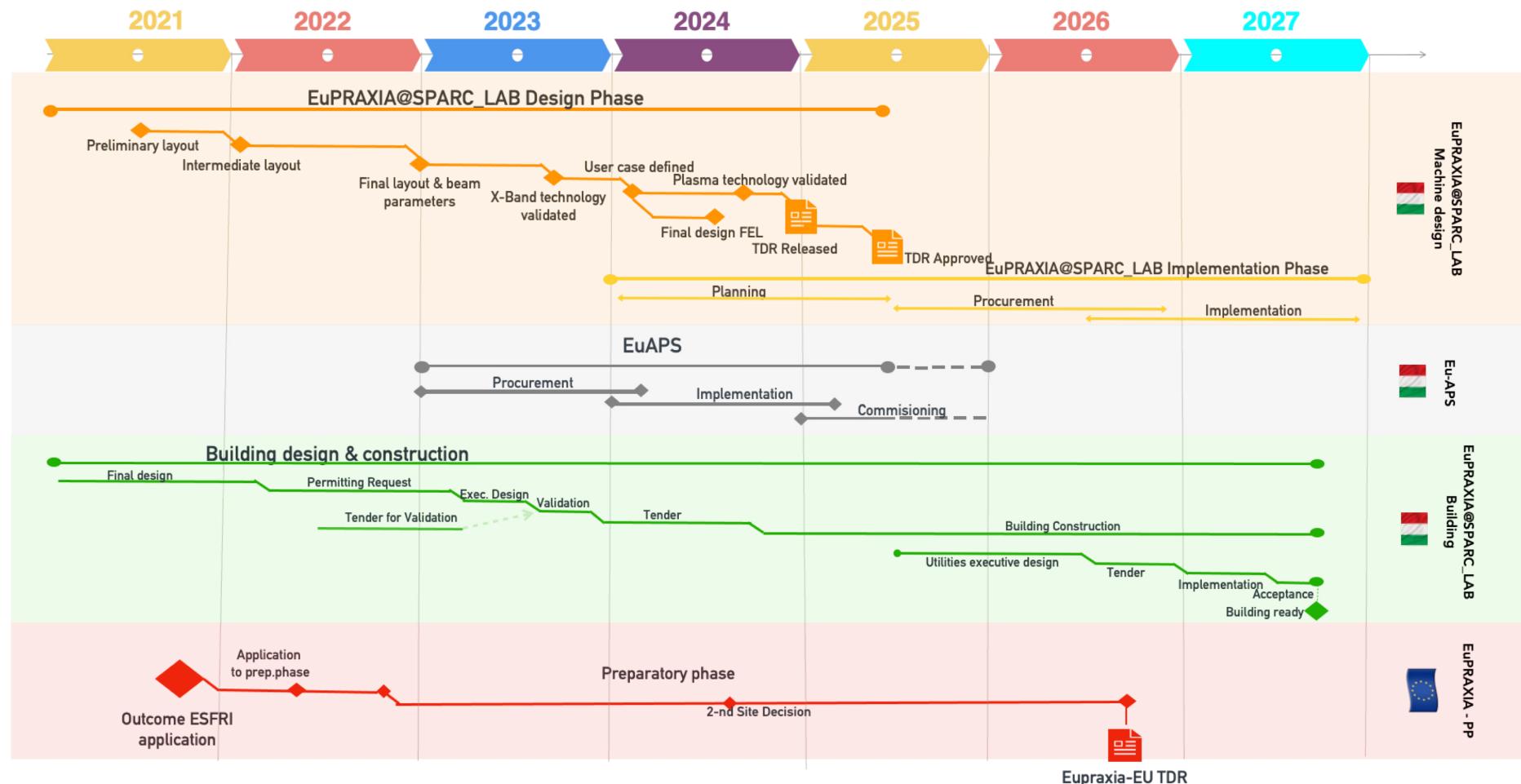
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WP 4 High Repetition Rate laser system

WP	Bimester	Milestone ID	Milestone Name	Costs (€)
4	2	M.4.2.1	Laser transport and manipulation full-scale modelling	42.800,00
	3	M.4.1.1	Laser system tender and advanced payment (20%)	784.769,96
	8	M.4.3.1	Clean room commissioning	299.600,00
	8	M.4.1.2	Laser second payment (40%)	1.612.335,92
	10	M.4.3.2	Procurement of optical tables	64.200,00
	10	M.4.1.3	Laser third (final) payment (40%)	1.663.544,12
	11	M.4.2.2	Definition and procurement of optics, optomechanics, etc. for laser beam transport	117.700,00
	11	M.4.2.3	Definition and procurement of laser beam temporal diagnostics	96.300,00
	13	M.4.3.3	Procurement of vacuum pipes/pumps/steering chambers for beam transport	139.100,00
	14	M.4.3.4	Procurement of vacuum chamber for end station	42.800,00
				TOTALE 4.863.150,00

Time Schedule Overall EuPRAXIA





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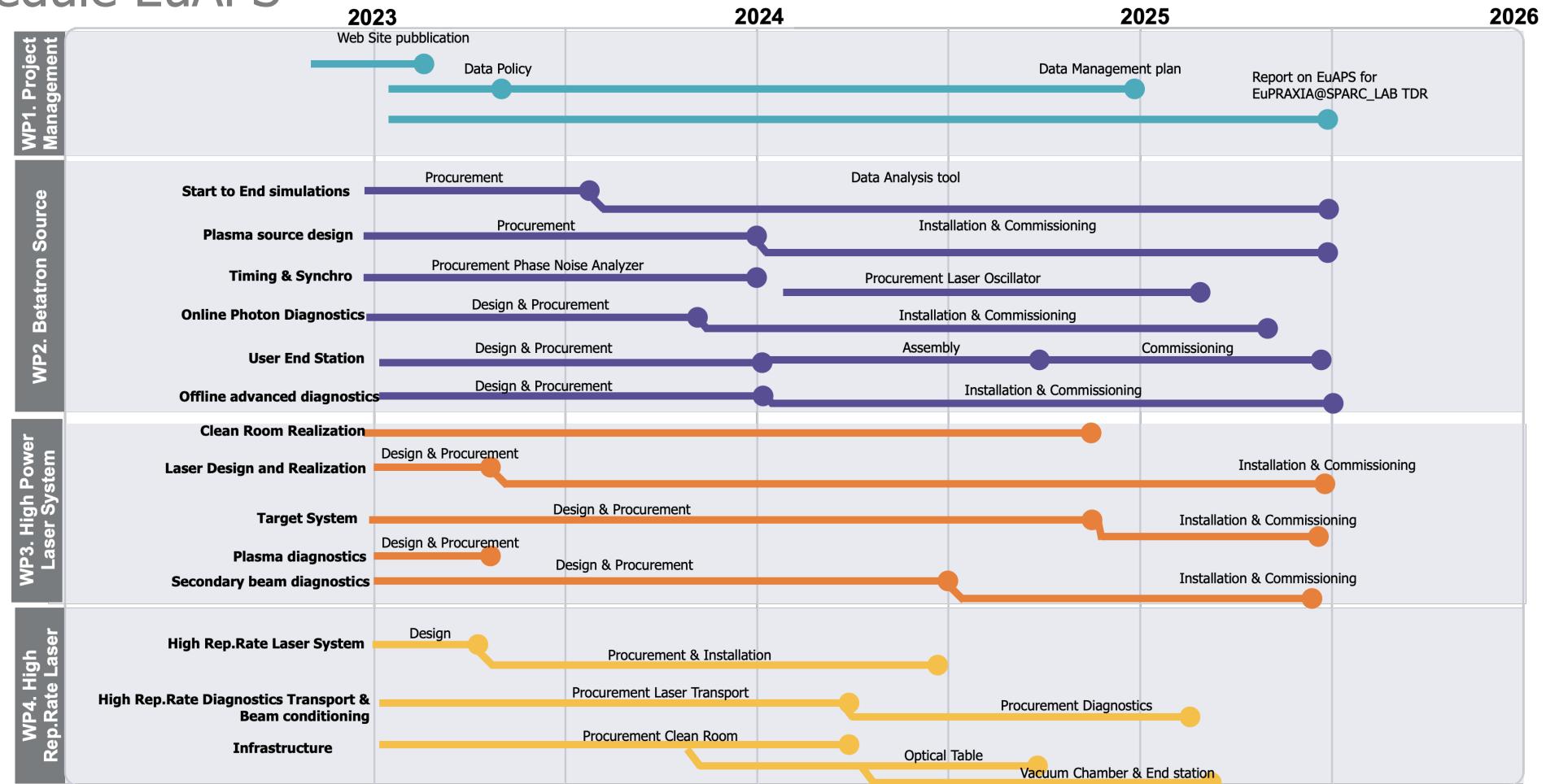
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EuPRAXIA
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Time Schedule EuAPS





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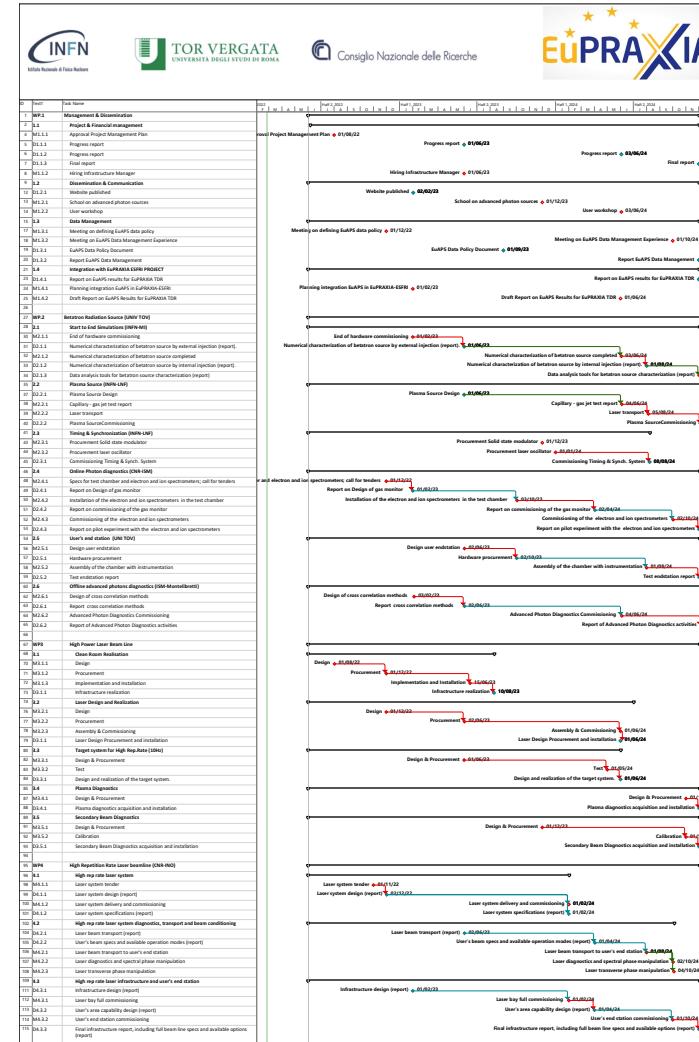


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Detailed time schedule must be properly fine tuned using the template provided by Intellera.

To be done in the next week.





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Advanced Photon Sources

WP.1 Project Management & Dissemination					
Activity ID	Activity name	Milestone ID	Milestone Name	Deliverable	Due Bimester
1.1	Project & Financial Management				
1.1.1	Project Management Plan	M1.1.1	Approval of the Project Management plan	PMP	1
1.1.2	Hiring of Infrastructure Manager	M1.1.2	Hiring of Infrastructure Manager	Hiring	6
1.2	Dissemination & Communication				
1.2.1	Website publication	M1.2.1	Website pubblication	Website	4
1.3	Data Management				
1.3.1	Meeting EuAPS Data Policy	M1.3.1	EuAPS Data Policy	Meeting Data policy	3
1.3.2	Meeting EuAPS Data Management Experience	M1.3.2	EuAPS Data experience	Meeting Data experience	14
1.4	Integration with EuPRAXIA ESFRI Project				
1.4.1	Draft Report on EuAPS for EuPRAXIA TDR	M1.4.1	Report EuPRAXIA TDR	Report EuAPS -Eupraxia TDR	12



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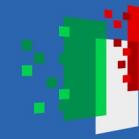
WP.2	Betatron Radiation Source	Milestone ID	Milestone Name	Deliverable	Due Bimester
Activity ID	Activity name				
2.1	Start to End simulation				
2.1.1	Hardware procurement and commissioning	M2.1.1	Hardware Procurement and commissioning Milestone 2.1.1 M8	A detailed scan of the betatron radiation source parameter space in the internal injection scheme, by means of numerical simulations, in order to optimize its yield and guide the design and operation.	4
2.1.2	Data analysis tools for betatron source characterization	M2.1.2	Data analysis tools for betatron source characterization (report) M30	D2.1.3 Data analysis tools for betatron source characterization (report) M30	15
2.2	Plasma Source				
2.2.1	Plasma source design	M2.2.1	Deliverable D.2.2.1 Plasma source design M12	Deliverable D.2.2.1 Plasma source design	6
2.2.2	Gas jet test report	M2.2.2	Gas jet test report M24	D2.2.2 Plasma SourceCommissioning M30 Commissioning of the plasma source, including test of the plasma diagnostics to measure the plasma density.	12
2.2.3	Laser Transport	M2.2.3	Laser Transport	D2.2.2 Plasma source Commissioning	13
2.2.4	Plasma Source Commissioning	M2.2.4	Plasma Source Commissioning	D2.2.2 Plasma SourceCommissioning M30	15
2.3	Timing & Synchronization				
2.3.1	Procurement of phase noise analyzer	M2.3.1	Procurement of phase noise analyzer	D2.3.1 Commissioning timing & synchronization system M26	6
2.3.2	Procurement of laser oscillator	M2.3.2	Procurement of laser oscillator	D2.3.1 Commissioning timing & synchronization system	10
2.4	Online Photon Diagnostics				
2.4.1	Specs for test chamber and electron and ion spectrometers; call for tenders	M2.4.1	Specs for test chamber and electron and ion spectrometers; call for tenders	Deliverable 2.4.1	3
2.4.2	Report on Design of gas monitor	M2.4.2	Deliverable 2.4.1 Report on Design of gas monitor M8	D2.4.2 Report on commissioning of the gas monitor M22	4
2.4.3	Installation of electron and ion spectrometers in the test chamber	M2.4.3	Installation of electron and ion spectrometers in the test chamber	D2.4.2	8
2.4.4	Commissioning of the electron and ion spectrometers	M2.4.4	Commissioning of the electron and ion spectrometers	D2.4.3 Report on pilot experiments with the electron and ion spectrometers M30	14
2.4.5	Report on pilot experiments with the electron and ion spectrometers	M2.4.5	Deliverable - Report on pilot experiments with the electron and ion spectrometers	2.4.5 - Deliverable - Report on pilot experiments with the electron and ion spectrometers	15
2.5	Users end station				
2.5.1	Design User end station	M2.5.1	Design User end station	D2.5.1 Hardware procurement M16 Acquisition of the principal hardware to assemble the user end station, including vacuum components and mechanical actuator.	6
2.5.2	Assembly of the chamber with instrumentation	M2.5.2	Assembly of the chamber with instrumentation	D2.5.2	13
2.5.3	Test end station report	M2.5.3	Deliverable - Test end station report	2.5.3 Deliverable - Test end station report	15
2.6	Offline advanced Photon Diagnostics				
2.6.1	Design of cross-correlation method	M2.6.1	Design of cross-correlation method	D2.6.1 Report on cross correlation methods M12	4
2.6.2	Advanced photon diagnostics commissioning	M2.6.2	Advanced photon diagnostics commissioning	D2.6.2 Report on Advanced Photon Diagnostics activities M30	12



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WP.3	High Power Laser Beamline	Milestone ID	Milestone Name	Deliverable	Due Bimester
Activity ID	Activity name				
3.1	Clean Room Realization				
3.1.1	Clean room design	M3.1.1	Clean room design	Infrastructure realization	2
3.1.2	Procurement and first payment	M3.1.2	Procurement and first payment	Infrastructure realization	5
3.1.3	Second payment	M3.1.3	Second payment	Infrastructure realization	7
3.1.4	Third payment	M3.1.4	Third payment	Infrastructure realization	10
3.1.5	Assembling, commissioning and fourth payment	M3.1.5	Assembling, commissioning and fourth payment	Infrastructure realization	12
3.2	Laser design and realization				
3.2.1	Design	M3.2.1	Design	Laser design procurement and installation	3
3.2.2	Procurement and first payment	M3.2.2	Procurement and first payment	Laser design procurement and installation	5
3.2.3	Second payment	M3.2.3	Second payment	Laser design procurement and installation	8
3.2.4	Third payment	M3.2.4	Third payment	Laser design procurement and installation	12
3.2.5	Assembling and commissioning and fourth payment	M3.2.5	Assembling and commissioning and fourth payment	Laser design procurement and installation	15
3.3	Target system for High Rep.ate				
3.3.1	Design and procurement	M3.3.1	Design and procurement	Design and realization of the target system	12
3.3.2	Realization and tests	M3.3.2	Realization and tests	Design and realization of the target system	15
3.4	Plasma Diagnostics				
3.4.1	Design and procurement	M3.4.1	Design and procurement	Plasma diagnostic: acquisition and installation	5
3.5	Secondary beam diagnostics				
3.5.1	Design, procurement and mechanical procurement and mechanical realization of diagnostic	M3.5.1	Design, procurement and mechanical procurement and mechanical realization of diagnostic	Secondary beam diagnostic: acquisition and installation	9
3.5.2	Calibration under conventional beams	M3.5.2	Calibration under conventional beams	Secondary beam diagnostic: acquisition and installation	15



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WP.4	High Repetition Rate Laser Beamline	Milestone ID	Milestone Name	Deliverable	Due Bimester
Activity ID	Activity name				
4.1	High rep.rate laser system				
4.1.1	Laser system design - 1	M4.1.1	Laser system tender and advanced payment (20%)	Laser system design (report)	3
4.1.2	Laser system design - 2	M4.1.2	Laser second payment (40%)	D4.1.1 Laser system design (report) M6	8
4.1.3	Laser system specifications	M4.1.3	Laser third (final) payment (40%)	D 4.1.2 Laser system specifications (report) M20	10
4.2	High rep.rate laser system diagnostics transport and beam conditionin				
4.2.1	Laser transport and manipulation full-scale modelling	M4.2.1	Laser transport and manipulation full-scale modelling	D4.2.1 Laser beam transport (report) M12 Design of the laser beam transport to the user's end station, including expected performances regarding pulse duration, pointing diagnostics and so on D4.2.2 User's beam specs and available operation modes (report) M22 Report on the expected laser figures at the user's end station, which includes the possibility of beam longitudinal/transverse functions tailoring according to the user's needs	2
4.2.2	Definition and procurement of components for laser beam transport	M4.2.2	Definition and procurement of optics, optomechanics, etc. for laser beam transport	D4.2.1 Laser beam transport (report) M12 Design of the laser beam transport to the user's end station, including expected performances regarding pulse duration, pointing diagnostics and so on D4.2.2 User's beam specs and available operation modes (report) M22	11
4.2.3	Definition and procurement of laser beam temporal diagnostics	M4.2.3	Definition and procurement of laser beam temporal diagnostics	D 4.1.2 Laser system specifications (report) M20 Report on the final specs of the commissioned laser system; this will include pulse duration, pulse energy, ASE/ps pedestal contrast, short/long term energy stability, pulse spectrum, pointing stability D4.3.2 User's area capability design (report) M22 Report on the user's area, including the expected user's station and related facilities/devices, timing/synchronization capabilities, irradiation station(s) characteristics/footprints D4.3.3 Final infrastructure report, including full beam line specs and available options (report) M30 Final report on the infrastructure, including all beam line specifications, with a user-oriented approach	11
4.3	High rep.rae laser infrastructure and users end station				
4.3.1	Clean room commissioning	M4.3.1	Clean room commissioning	D4.3.1 Infrastructure design (report) M8 Preliminary design report of the whole infrastructure	8
4.3.2	Procurement of optical tables	M4.3.2	Procurement of optical tables	D4.2.1 Laser beam transport (report) M12 Design of the laser beam transport to the user's end station, including expected performances regarding pulse duration, pointing diagnostics and so on D4.3.2 User's area capability design (report) M22 Report on the user's area, including the expected user's station and related facilities/devices, timing/synchronization capabilities, irradiation station(s) characteristics/footprints D4.3.3 Final infrastructure report, including full beam line specs and available options (report) M30 Final report on the infrastructure, including all beam line specifications, with a user-oriented approach	10
4.3.3	Procurement of vacuum pipes/pumps/steering chambers for beam transport	M4.3.3	Procurement of vacuum pipes/pumps/steering chambers for beam transport	D4.2.1 Laser beam transport (report) M12 Design of the laser beam transport to the user's end station, including expected performances regarding pulse duration, pointing diagnostics and so on D4.3.2 User's area capability design (report) M22 Report on the user's area, including the expected user's station and related facilities/devices, timing/synchronization capabilities, irradiation station(s) characteristics/footprints	13
4.3.4	Procurement of vacuum chamber for end station	M4.3.4	Procurement of vacuum chamber for end station	D4.3.2 User's area capability design (report) M22 Report on the user's area, including the expected user's station and related facilities/devices, timing/synchronization capabilities, irradiation station(s) characteristics/footprints D4.3.3 Final infrastructure report, including full beam line specs and available options (report) M30 Final report on the infrastructure, including all beam line specifications, with a user-oriented approach	14



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Earned Value Management

Earned Value Management - EVM is a powerful tool for monitoring & control

Each WP has a set of intermediate objectives associated to a certain payment (i.e. value)

Value of intermediate objectives → **Planned Value (PV)**

Advancement Status is assessed every month → **Earned Value (EV)**

Key Performance Indicator → SPI, Schedule Performance Indicator **SPI=EV/PV**

This indicates how well we are moving ahead with respect to the baseline.



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Provided list of activities, start and end-date, milestone to be accomplished

- Planned Value -
PV

- Earned Value -
 $EV = \% \times PV$

- Actual Cost -
AC

Strategy to standardize the % of work done

0%	Activities not started yet
25%	Activities started and only preliminary results
50%	Activities started and consolidated results
75%	Activities started and final results available
100%	Activities completed and milestone reported

EV is monitored on monthly basis

AC is monitored through the procurement portal and the monthly accounting to the minister portal.



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Earned Value Management

Milestones Monitoring - EVM												
Activity ID	Activity name	Milestone ID	% Complete	PV	PV/Duration [Month]	EV	AC	SPI	SV	CPI	CV	Comments
WP.1 Project Management & Dissemination												
5.1.1	Project & Financial Management	M1.1.1	75	- €	- €	- €			0			
6	Project Management Plan	M1.1.1	75	- €	- €	- €			0			
7	Hiring of Infrastructure Manager	M1.1.2	0	28.396,15 €	2.366,35 €	- €	0		-28396,15			
8.1.2	Dissemination & Communication											
9	Website publication	M1.2.1	50	23.046,00 €	3.841,00 €	11.523,00 €		0,5	-11523			
10.1.3	Data Management											
11	Meeting EuAPS Data Policy	M1.3.1	0	16.873,00 €	4.218,25 €	- €	0		-16873			
12	Meeting EuAPS Data Management Experience	M1.3.2	0	34.569,00 €	3.456,90 €	- €	0		-34569			
13.1.4	Integration with EuPRAXIA ESFRI Project											
14	Draft Report on EuAPS for EuPRAXIA TDR	M1.4.1	0	62.965,85 €	10.494,31 €	- €	0		-62965,85			
15												
16												
17	WP.2 Betatron Radiation Source											
18	Activity ID	Activity name	Milestone ID	% Complete	PV	PV/Duration [Month]	EV	AC	SPI	SV	CPI	Comments
19	2.1 Start to End simulation											
20	2.1.1	Hardware procurement and commissioning	M2.1.1	25	302.452,00 €	37.806,50 €	75.613,00 €		0,25			
21	2.1.2	Data analysis tools for betatron source characterization	M2.1.2	0	184.397,00 €	8.381,68 €	- €		0			
22	2.2 Plasma Source											
23	2.2.1	Plasma source design	M2.2.1	25	1.450.920,00 €	120.910,00 €	362.730,00 €	87.840,00 €	0,25	#####	4.129439891	274.890,00 € Acquisto telecamera a raggi X
24	2.2.2	Gas jet test report	M2.2.2	0	3.598.303,00 €	299.858,58 €	- €		0			
25	2.2.3	Laser Transport	M2.2.3	0	773.041,00 €	59.464,69 €	- €		0			
26	2.2.4	Plasma Source Commissioning	M2.2.4	0	47.080,00 €	11.770,00 €	- €		0			
27	2.3 Timing & Synchronization											
28	2.3.1	Procurement of phase noise analyzer	M2.3.1	25	162.675,00 €	13.556,25 €	40.668,75 €	#####	0,25	- 122.006,25 €	0,239993096	- 128.789,25 € Acquisto del phase noise analyzer
29	2.3.2	Procurement of laser oscillator	M2.3.2	0	391.620,00 €	19.581,00 €	- €		0			
30	2.4 Online Photon Diagnostics											
31	2.4.1	Specs for test chamber and electron and ion spectrometers	M2.4.1	25	- €	- €	- €	#DIV/0!				CNR
32	2.4.2	Report on Design of gas monitor	M2.4.2	0	83.816,31 €	41.908,16 €	- €		0			
33	2.4.3	Installation of electron and ion spectrometers in the	M2.4.3	0	838.165,24 €	104.770,66 €	- €		0			
34	2.4.4	Commissioning of the electron and ion spectrometers	M2.4.4	0	263.936,90 €	21.994,74 €	- €		0			
35	2.4.5	Report on pilot experiments with the electron and ion	M2.4.5	0	12.481,55 €	6.240,78 €	- €		0			
36	2.5 Users end station											
37	2.5.1	Design User end station	M2.5.1	0	181.900,00 €	15.158,33 €	- €		0			
38	2.5.2	Assembly of the chamber with instrumentation	M2.5.2	0	524.300,00 €	37.450,00 €	- €		0			
39	2.5.3	Test end station report	M2.5.3	0	42.800,00 €	10.700,00 €	- €		0			
40	2.6 Offline advanced Photon Diagnostics											
41	2.6.1	Design of cross-correlation method	M2.6.1	0	395.900,00 €	49.487,50 €	- €		0			CNR
42	2.6.2	Advanced photon diagnostics commissioning	M2.6.2	0	203.300,00 €	12.706,25 €	- €		0			

- Full detailed WBS with intermediate milestone Planned Value
- Advancement Assessment - Follow up
- Earned Value for each activity
- KPI for single WP and for the whole project



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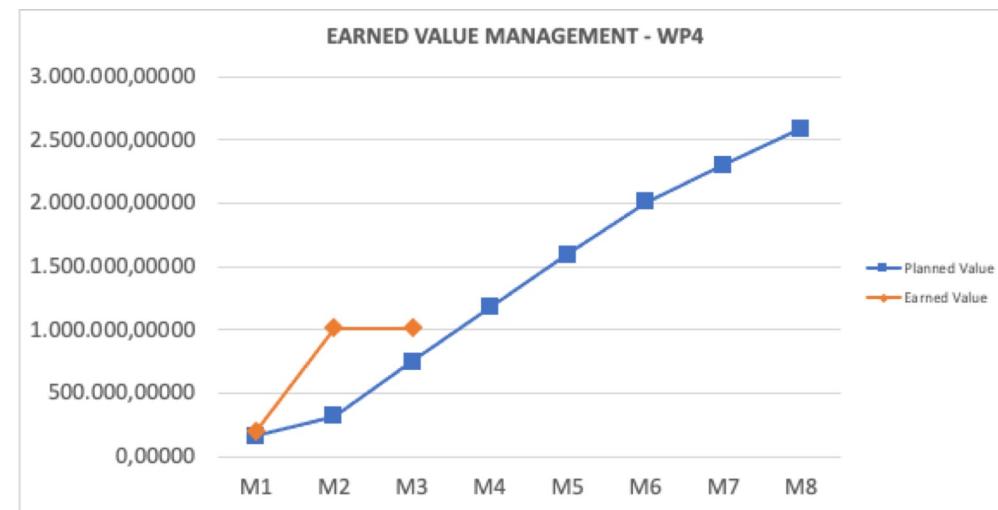
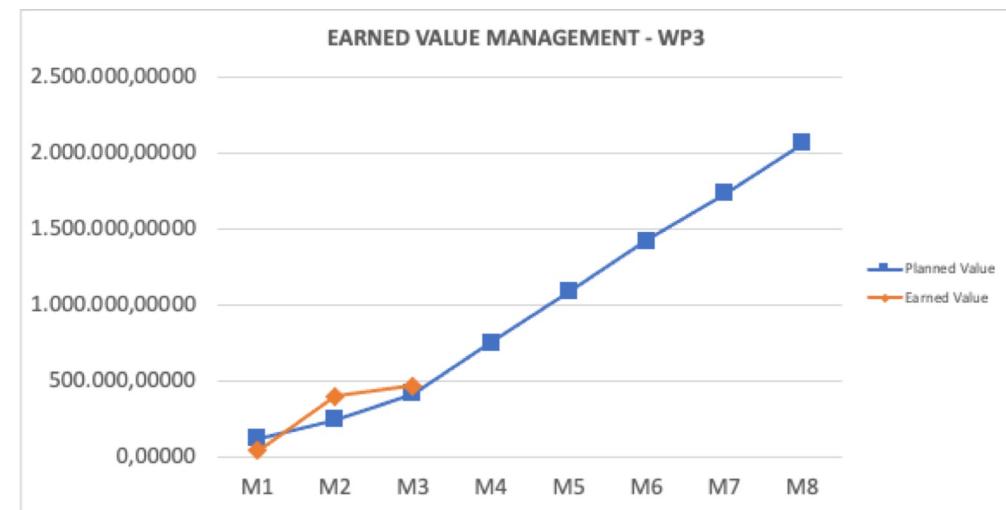
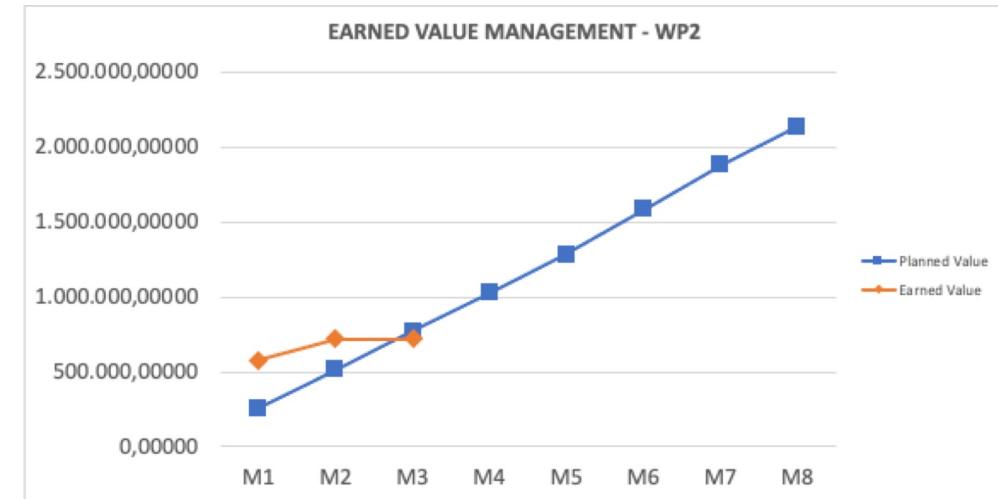
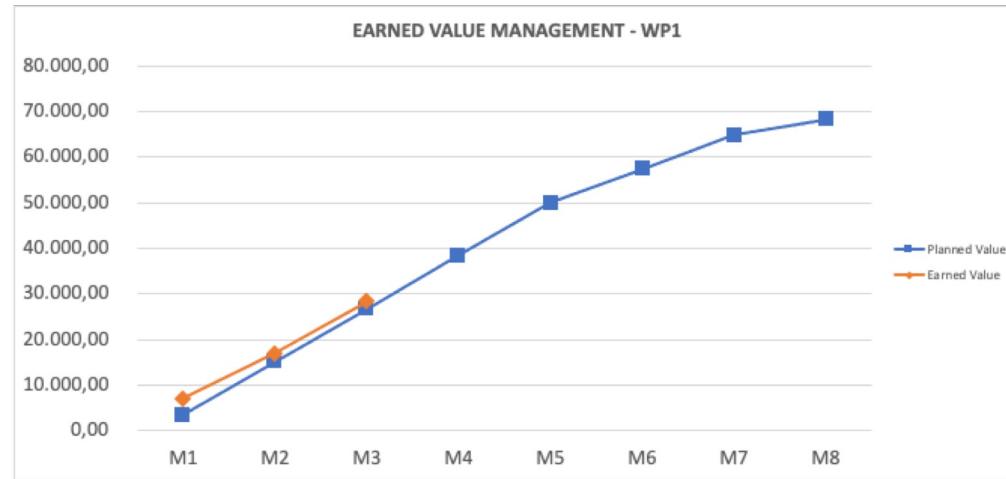


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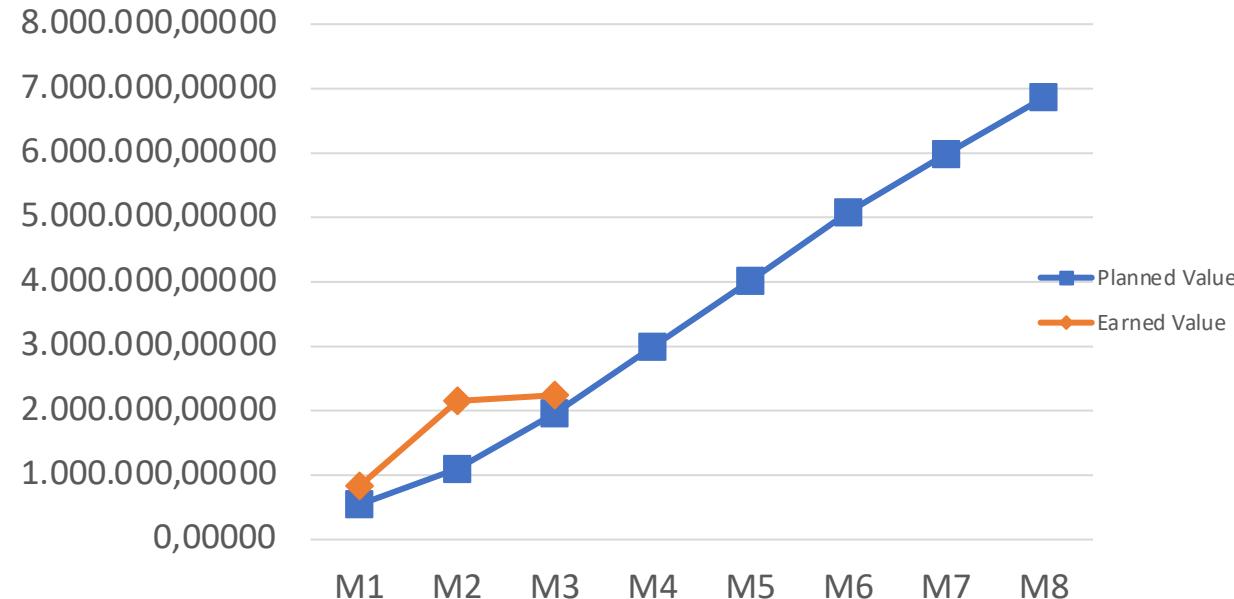


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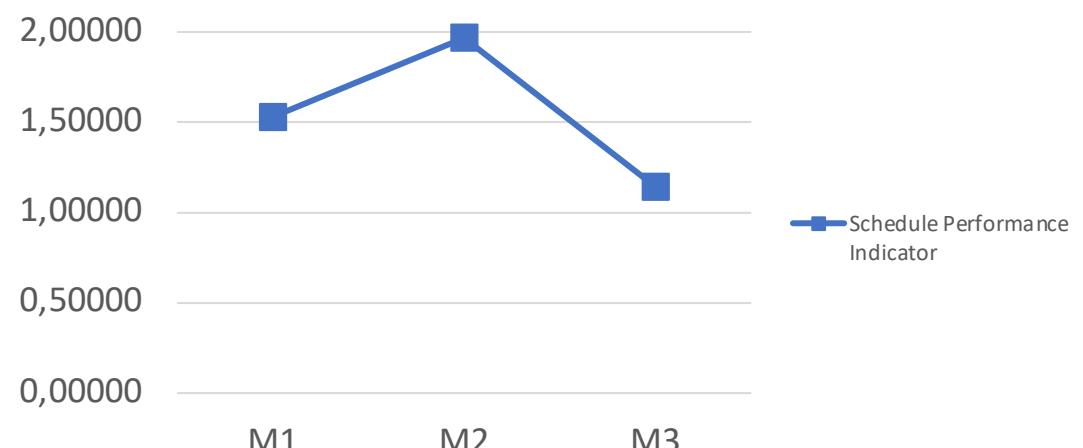
EuPRAXIA
Advanced Photon Sources



EARNED VALUE MANAGEMENT - INTEGRATED



SCHEDULE PERFORMANCE INDICATOR





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Follow up procedures

It is quite evident that the follow up and monitoring & control of the project is heavily constrained by rigid procedures imposed by the type of funding (PNRR is quite an exception).

There are several layers to be taken into account.

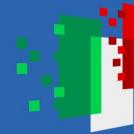
A strict internal procedures will help in the interaction with different stakeholders (GE, PNRR Portfolio Management Team, AC, MUR).



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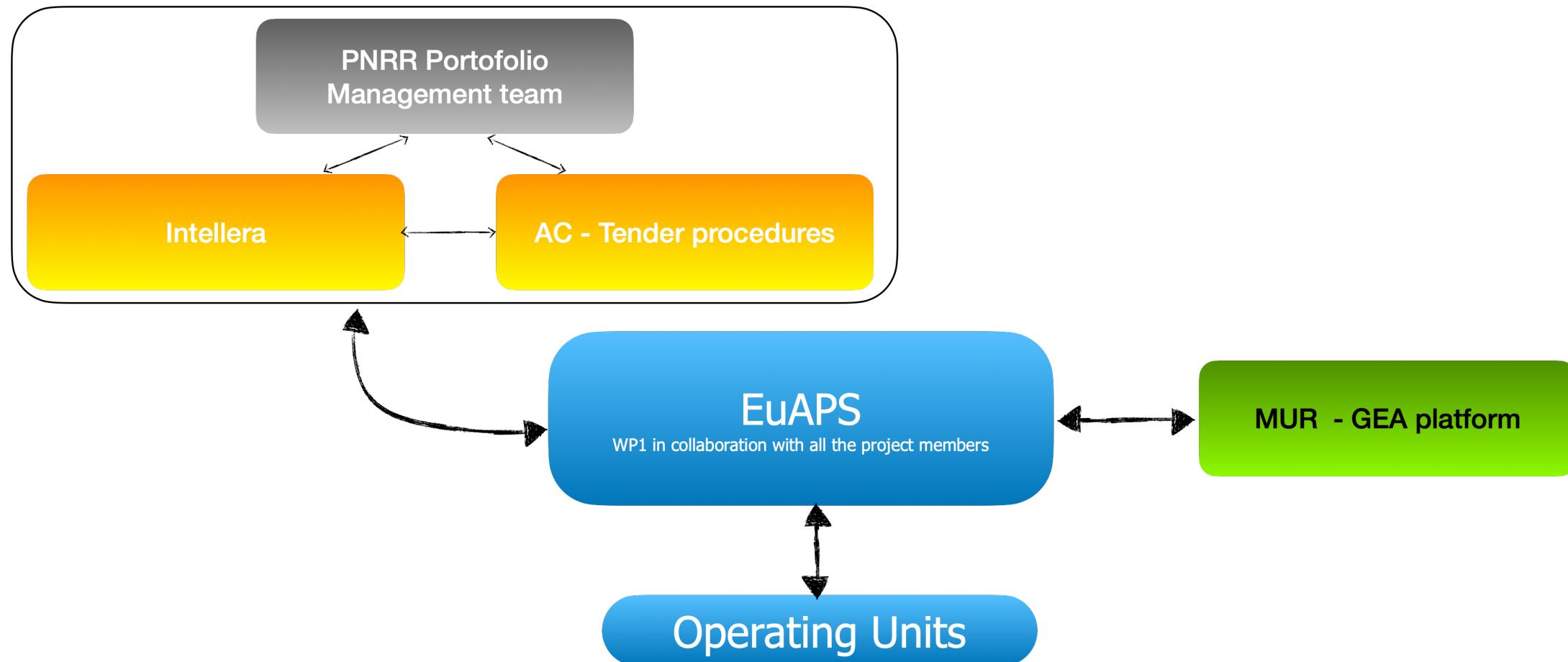
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Interactions within main stakeholders





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Interactions within main stakeholders

The main information flow that we have to guarantee to all the stakeholder is indeed quite simple:

- Status of the project - Advancement
- Procurements details and schedule
 - We have to provide all the procurement foreseen in 2023.
 - Update regularly our planned tender
- Change requests (within certain limits)
- Production of a project dashboard (with the help of Intellera)



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Change request

Change requests can be done (and eventually MUST BE DONE) through the main portal according to specific procedures.

We are forced to assign all the tenders by the end of the year. This imposes a serious constraint that must be treated properly.

During the next month (March2023) we will start a comprehensive survey of the modification of the schedule we have to implement and formalize.

The new baseline must be realistic, deliverable oriented and take into account the boundary conditions imposed by the PNRR rules.



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Recruitment

- INFN - 6 tecnologi
- UniTOV - 1 tecnologo + 1 ricercatore
- CNR - 3 tecnologi + 3 ricercatori
- INFRASTRUCTURE MANAGER (still to be defined)

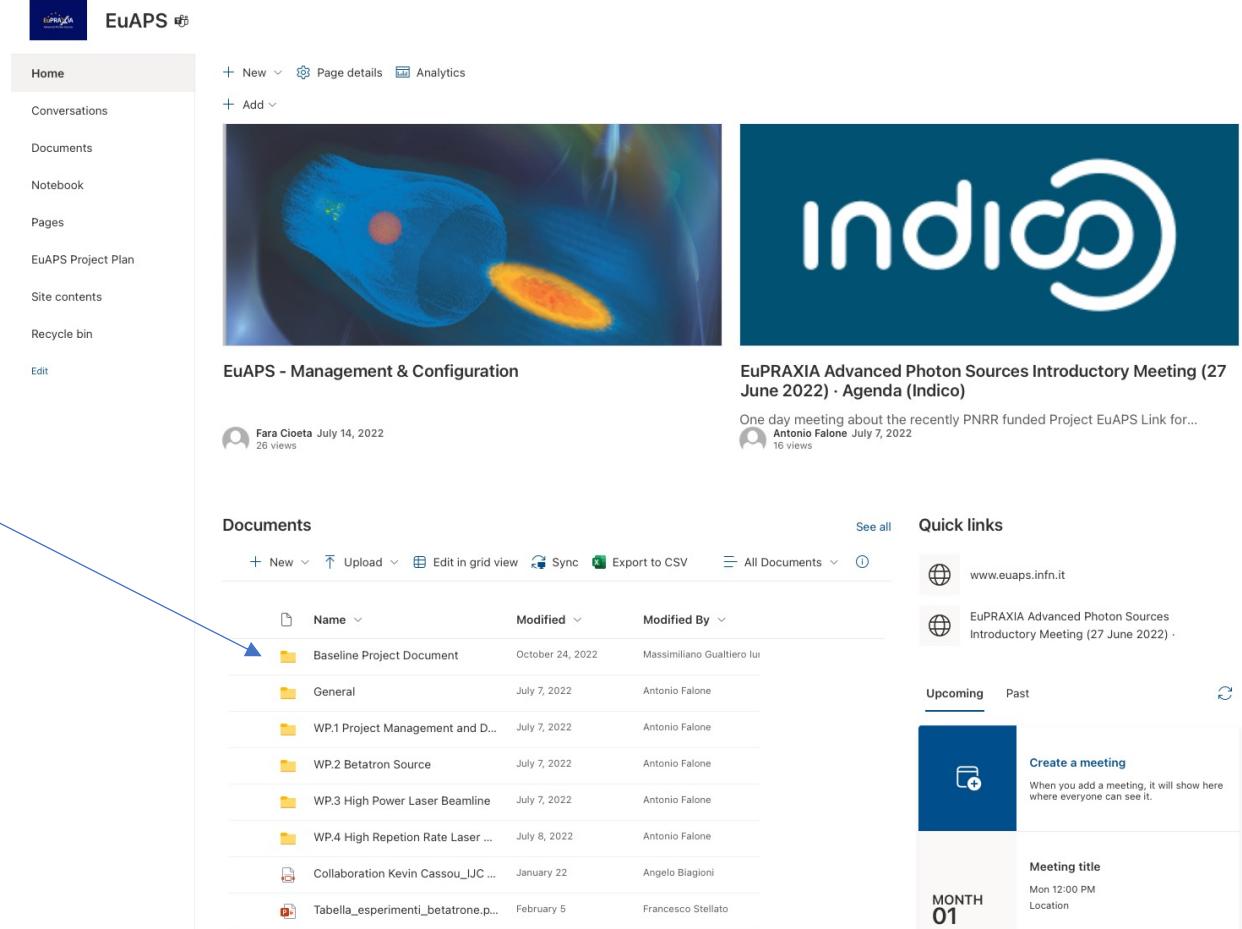
All recruitments are well in progress. New hired people should join the project in a couple of months (maximum).

Document Management System

Sharepoint as main document repository

Project Baseline Document

Templates, procurement instructions...



The screenshot shows a SharePoint document library interface. At the top, there's a navigation bar with 'EuAPS' and a search bar. Below it, a 'Documents' section displays two items:

- EuAPS - Management & Configuration**: A thumbnail image of a blue and orange abstract visualization, posted by Fara Cioeta on July 14, 2022, with 26 views.
- EuPRAXIA Advanced Photon Sources Introductory Meeting (27 June 2022) · Agenda (Indico)**: A thumbnail image of the Indico logo, posted by Antonio Falone on July 7, 2022, with 16 views.

Below these, the 'Documents' section lists several files and folders:

Name	Modified	Modified By
Baseline Project Document	October 24, 2022	Massimiliano Gualtiero Iur
General	July 7, 2022	Antonio Falone
WP.1 Project Management and D...	July 7, 2022	Antonio Falone
WP.2 Betatron Source	July 7, 2022	Antonio Falone
WP.3 High Power Laser Beamline	July 7, 2022	Antonio Falone
WP.4 High Repetition Rate Laser ...	July 8, 2022	Antonio Falone
Collaboration Kevin Cassou_IJC ...	January 22	Angelo Biagioni
Tabella_esperimenti_betatrone.p...	February 5	Francesco Stellato

On the right side, there are 'Quick links' to the EuAPS website and the meeting agenda, and a 'Meetings' section showing an upcoming meeting titled 'Create a meeting'.



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Conclusions

- The project has started a couple of months ago and despite all the constraints it is evolving well
- It will be a challenge not only from the scientific and technical perspective but also from Project Management side
- Several innovative tools are being implemented, this will certainly help also future projects/activities in the lab
- Of course cooperation and mutual understanding will be critical for the successful accomplishment of the project