

LNF ACTIVITY PLAN 2025

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ON BEHALF OF THE PROJECT MANAGEMENT OFFICE

SCIENTIFIC COMMITTEE, INFN-LNF 14/05/2025



- Update on PMO activities since the last SCI-COM meeting taking into account reccommendation
- Projects and activities ongoing
- 2025 planning for accelerator division and technical division
- Outlook 2026-2030 → accelerators activities and resource distribution





NEXT STEPS

The PMO has started officially its activities only a couple of months ago. At the moment we are working on several aspects for a full deployment of the mandate.

- Systematic high level projects schedules follow up
- Introduction of KPI (especially for resource allocation)
- Integrated planning automatization
- Closer look to EuPRAXIA Implementation phase preparation of the project management plan
- Configuration database tool for EuAPS and EuPRAXIA@SPARC_LAB ongoing (to be extended to other future facilities).
- Stress test and simulations for future projects

Scientific Commitee , 20/11/2024

Scientific Commitee , 14/05/2025



Significant advancements on all these topics

NFN **INTERACTION WITH PSI** tuto Nazionale di Fisica Nucleare Laboratori Nazionali di Frascati

Several interaction with PSI to better understand best practices and past experiences. The two offices are very similar in scope and mandate although at PSI they started already some years ago.

PSI						
PSI – Organisation Research Committee Prof. Dr. Marco Stampano Human Resources Management Sandra Denk all Center for Proton Therapy Prof. Dr. Damien Weber Research centers (1500 FTE) Prof. Dr. Michel Steinmetz al. Prof. Dr. Michel Steinmetz al. Prof. Dr. Prof. Dr. Klaus Kirch Neutron and Muon Sciences Prof. Dr. Klaus Kirch Prof. Dr. Roger Schibit Neutron Scattering and imaging Prof. Dr. Biomolecular Research Dr. Jörg Standfuss al. Muon Spin Spectroscopy Dr. Theuron and Muon Instrumentation Prof. Dr. Multiscale Bioimaging Prof. Dr. Neutron and Muon Instrumentation Prof. Dr. Multiscale Bioimaging Prof. Dr. Neutron and Muon Instrumentation Prof. Dr. Mutiscale Materials Experiments Red	Director: Prof. Dr. Christian Ril Members of the board of or Prof. Dr. Andress Pautz Prof. Dr. Andress Pautz Prof. Dr. Andress Pautz Prof. Dr. Thomas J. Schmidt Prof. Dr. Milee Seidel Dr. Thierry Strässle* I Center for Iclear gineering and lences (NES) If. Dr. Andreas Pautz actor Physics and ermail Hydraulics kim Feroukhi Fuergy and guesting errouthi Sciences (CEE) Prof. Dr., Oliver Kröcher Marco Streit Iste Management if. Dr. Manuel Pouchon Manuel Pouchon Sistalnable Electrochemistry Prof. Dr. Claudia Mohr Catalysis and Sustalnable Chemistry Prof. Dr. Claudia Mohr	legg directors: (900 FTE) Ter PSI Center for Photon Science (CPS) Prof. Dr. Gabriel Aeppil Macromolecules and Bioimaging Dr. Oliver Bunk X-ray Nanoscience and Technologies Dr. Yasin Exinci Condensed Matter Prof. Dr. Frithjof Nolting Femtochemistry Prof. Dr. Frithjof Nolting Femtochemistry Prof. Dr. Christoph Bostedt Advanced Spectroscopy and X-ray Sources Prof. Dr. Luc Patthey Nonlinear Optics Prof. Dr.	Directorate Support Human Resources M Safety Communications Science Finance and Administ Technology Transfer Accel. Scient Computing, Theory and Data (CSD) Prof. Dr. Christian Rüegg, a.ä. Simulation and Modelling Prof. Dr. Laura Grigori Theoretical and Computational Physics Prof. Dr. Aura Grigori Theoretical and Computational Physics Prof. Dr. Aira Grigori Theoretical and Computational Physics Prof. Dr. Nicola Marzari Science IT Infrastructure and Services Dr. Alun Ashton	anagement S anagement S trative Services C trative Services C structure & PSI Center for Accelerator Science and Engineering (CA Prof. Dr. Mike Seidel CAS Planungsbär Accelerator Operat and Development PD Dr. Daniela Kisel Electronics and Coordination Kilian Roll Accelerator Technologies Dr. Hans-Heinrich Braun	Dr. Thierry Strässle Sandra Denk a.l. Dr. Thierry Strässle Sandra Denk a.l. Dr. Werner Roser Dr. Mirjam van Daalen Dr. Bis Gonther-Leopold Dr. Michèle Erat Dr. Frank Behner Iohn Millard Deering, Operation Admin. Services PSi Center for Corporate Services Dr. Frank Behner Ev PSi Center for Corporate Dr. Frank Behner Ev Real Estate and Services Uilan Jakob Information Technology Ronny Peterhans Radiation Safety and Security Dr. Sabine Mayer Communications	PSI
I Thomas Uppert	Jeroen van Bokhoven Energy Systems Analysis Prof. Dr. Russell McKenna	Nano and Quantum Technologies Prof. Dr.		Gro in alm	oups involved ost all projects	



- PSI's Directorate / executive management
- Head of the Center for Accelerator Science and Engineering (CAS)
- relevant (large-scale) projects

in matters of strategic planning, by providing well-founded data for decision-making and ensuring strategic guidance and oversight of relevant projects.

The Planungsbüro ensures that executive management has precise and relevant information to make informed decisions



MANDATE

- supports LNF Management in the implementation of Project Management best practices and methodologies for the management of the Laboratories projects;
- promotes the constant training and updating on the Project Management methodologies of all the workers in collaboration with the INFN central structure;
- assists the Director, Division heads and Project Managers in the identification of any project risks in terms of availability of human and material resources;
- suggests to the Management of the Laboratories the standards of Project Management and Quality Control to be used for the management of the Laboratory projects (methodologies and software);
- the Laboratories.

Scientific Commitee , 14/05/2025

• supports the Director and Divisions heads in the harmonization of the different projects of



PROJECT MANAGEMENT TOOLS

Focus on projects and activities requiring technical resources (Installation and run facilities mainly).

Methodological approach

MProject

Individual Project Schedule

 From projects responsibles and discussed with services heads

Project online

Masterplan & Resource Loading

- Setting up *Projecton-line* framework
- Resource pool (All DA&DT)
- Project center
- Individual project loading
- Resource Loading
- Masterplan integration

PowerBI

Data processing

- Data aggregation
- Data visualization
- Dashboard production





A subset of critical projects are considered and put under monitoring

- TEX2
- EuAPS
- SABINA
- SSRIP

They all share the same resources and have similar constraints and critical milestones to be reached.

An integrated baseline and detailed schedule resource loaded has been produced.

Weekly meeting to follow up and monitoring to check delays and/or overallocation.

Several activities are subjected to changes due to delivery date of components that are only estimated.

Once the actual delivery date is fixed a detailed installation schedule is produced and crosschecked.



PROJECT MANAGEMENT TOOLS - INTEGRATED SCHEDULE

2 weeks task calendar analyzed every week to assess potential issues and over-loading.

Dynamic adjustment and compliance with overall project schedule

Although very useful there's room for improvement:

- Standardization projects timeline
- Milestones and KPI development (at this stage still preliminary).

	Progetto	Task	START F	INISH 9	% Compl. Status	Note
	EUAPS	CTR - Sviluppo	01/01/25	15/05/25	75% Ongoing	
	EUAPS	CTR - Sviluppo	01/01/25	15/05/25	75% Ongoing	
	TEX2	Installazione vacuum e meccanica	01/01/25	30/04/25	95% Ongoing	
	EUAPS	FLM - Installazione rack Paradiso e cabiatura dei controller	01/01/25	30/05/25	20% Ongoing	
	EUAPS	FLM - Installazione rack Paradiso e cabiatura dei controller	01/01/25	30/05/25	20% Ongoing	
	TEX2	Installazione vacuum e meccanica	01/01/25	30/04/25	95% Onaoina	
	CABINA	CAVITY BDM -> repariments materiale	03/02/25	30.04/25	05% Ongoing	ND
	FLIAPS	El M. Installatione rack hunker	1402/25	13/05/05	804 Opacing	
	EUADE	CTB_SIC_Allestimente stek	1702/23	13/03/25	EON Orgonig	
	CARINA	DIR - and Allesanienio Iata	1//02/25	12/05/25	50% Ongoing	ND
	SABINA	PIPE -> ordini	03/03/25	30/04/25	90% Ongoing	NP
	EUAPS	FLM - Procurement Adeguamento potenza Flame	03/03/25	15/05/25	50% Ongoing	
	SABINA	SUPPORTI BPM & CORRETTORI -> installazione in linea	17/03/25	13/06/25	80% Ongoing	NP
	SABINA	PIPE > installazione pre-prima flag	17/03/25	13/06/25	10% Ongoing	Dopo ordine pipe
	SABINA	SUPPORTI MECCANICA -> posizionamento e cablaggi in linea con elementi (BPM e co	17/03/25	30/06/25	85% Delayed	
	SARINA	PIPE-> installatione pre-prima flag	17/03/25	13/06/25	10% Ongoing	Dopo ordine pipe
	SARINA	SUPPORTI MECCANICA -> position amento e cabi agai in linea con elementi (BPM e co	17/03/25	30/06/25	85% Delayed	
	CABINA	CAUTY BDM > all astimates and Alaburation Connection)	2403/25	30/04/25	BOM Concepto	NR ND: DOBO CHIUEURA CAMERA DA VUOTO ENE CIUCNO
	GADINA	CAVITY BON > anticipation	24/03/25	30/04/25	OUTS ORIGONIS	RF, ND. DUPO CHIUSUNA CAMENA DA VUOTO, FINE OLUGINO
	SADINA	CAVITERM -> Cablage	24/03/25	30/04/25	90% Ongoing	
	EUAPS	SPR - Tracciatura e foratura Sparc	24/03/25	15/05/25	80% Ungoing	NP
	SABINA	CAVITY BPM -> allestmento rack (Network Connection)	25/03/25	30/04/25	80% Ongoing	NP, ND: DOPO CHIUSUKA CAMERA DA VUOTO, FINE GIUGNO
	TEX2	Design Beam Dynamics	01/04/25	15/04/25	15% Ongoing	
	SABINA	PROTEZIONE ONDULATORI - II (vicino ondulatore) -> installazione in linea	01/04/25	13/06/25	80% Ongoing	
	SABINA	THZ - PIPING -> MECCANICA SUPPORTO -> progettazione	01/04/25	09/05/25	0%	FINE GIUGNO (f)
	SABINA	THZ - CAMERE VUOTO - M2 -> follow up producer	01/04/25	09/05/25	60% Ongoing	
	SABINA	THZ - CAMERE VUOTO - M1-> assemblaggio	01/04/25	09/05/25	30% Ongoing	NP ND: FINE GIUGNO (f)
	SABINA	TH2 - MOVIMENTAZIONE SPECCHI M1 -> assemblaggio	01/04/25	09/05/25	30% Ongoing	NP ND: FINE GIUGNO (f)
	SABINA	THZ - CAMERE VUOTO - M1-> test vuoto	01/04/25	09/05/25	0%	NP ND: FINE GIUGNO (f)
	SABINA	THZ - MOVIMENTAZIONE SPECCHI M2, M3, M4, M5 -> ordine (servono fondi)	01/04/25	09/05/25	0%	
	SABINA	THZ - PIPING -> MECCANICA SUPPORTO -> propettazione	01/04/25	09/05/25	0%	
	SARINA	THZ - PIPING -> VUOTO -> propettazione	01/04/25	09/05/25	0%	
	SABINA	THZ - CAMERE VIOTO - M3 -> certine	010405	09/05/25	10% 000010	
	CADINA	DIDE -> concerns	01/04/20	16/05/20	10% Ungoing	DNE OUI ONO ID
	CABINA	TVZ_CAMERE MICTO_M2_> contactor	01/04/25	10/03/25	016	DNE CILICAIO (D
	GABINA	Inz - GARERE VUOTO - M2 -> COnsegna	01/04/25	09/05/25	0%	FIRE GIUGNU (1)
	JABINA	Inz - GARERE VUOTO - M4 -2 oldine	01/04/25	09/05/25	10% Ongoing	TINE GIUGNU (I)
	TEX2	Design Beam Dynamics	01/04/25	15/04/25	15% Ongoing	
	TEX2	Design Beam Dynamics	01/04/25	15/04/25	15% Ongoing	
	TEX2	Design Beam Dynamics	01/04/25	15/04/25	15% Ongoing	
	TEX2	Design Beam Dynamics	01/04/25	31/12/25	15% Ongoing	
	SABINA	THZ - CAMERE VUOTO - M3 -> consegna	04/04/25	06/06/25	0%	FINE GIUGNO (f)
	SABINA	THZ - CAMERE VUOTO - M3 -> follow up producer	04/04/25	06/06/25	0%	FINE GIUGNO (f)
	SABINA	THZ - CAMERE VUOTO - M4 -> consegna	04/04/25	06/06/25	0%	FINE GIUGNO (I)
	SARINA	TH7. CAMERE VICTO . MA .> following and user	0404/25	06/06/20	0%	ENE GIUGNO (D
	SHORE .	Mill Fill and all an entited and an entited an entited and an entited an entited and an entited an entited and an entited an enti	04/04/25	00/00/25	70%	
	EUAPS	AMPL - FE Laser alignement	07/04/25	16/05/25	70% Ongoing	
	EUAPS	AMPL - Front-End cabling / Installation of CCM	07/04/25	18/04/25	90% Ongoing	NP
	SABINA	CAVITY BPM -> installazione in linea (trasporto in sala ed installazione)	07/04/25	30/04/25	80%	NP
	SABINA	PIPE -> CAMERA Y -> consegna	07/04/25	16/05/25	100%	NP
	SABINA	CAVITY BPM -> installazione in linea (trasporto in sala ed installazione)	07/04/25	30/04/25	100%	NP
	Attività SPARC	Plasma Lab - High-current discharge R&D	07/04/25	27/06/25	50% Ongoing	FINE 2025 (f)
	Attività SPARC	Plasma Lab - High-current discharge B&D	07/04/25	27/06/25	50% Ongoing	FINE 2025 (f)
	Amura SPARC	Plasma Lab., High-current discharge 840	07/04/25	27/06/25	50% Ongoing	FINE 2025 (0
	ELLADE	Plasma cas - representante oscinarge nazz	07/04/25	150505	50% Origonig	FIRE 2020 ()
	EUAPS	aPR - Montaggio supporti sparc	07/04/25	15/05/25	50%	
	TEX2	Commissioning NP C	08/04/25	28/11/25	0%	
	TEX2	Commissioning RF X	08/04/25	28/11/25	0%	
	TEX2	Commissioning RF C	08/04/25	01/08/25	0%	
	TEX2	Commissioning RF X	08/04/25	01/08/25	0%	
	TEX2	Commissioning RF C	08/04/25	15/04/25	0%	
	TEX2	Commissioning RF X	08/04/25	15/04/25	0%	
	TEX2	Commissioning RF C	08/04/25	14/05/25	0%	
	TEX2	Commissioning RF X	08/04/25	14/05/25	0%	
	EUAPS	FLM - FORATURA per supporti TETTO	14/04/25	29/04/25	90% Ongoing	
	EUAPS	FLM - Installatione tubi vuoto @Flame	14/04/25	23/05/25	75% Ongoing	NP
	FLIAPS	FLM - Installatione tubi vuoto @Flame	14/04/25	23/05/25	75% Ongoing	NP
	ELIAPS	E M. Positionamento supporti TETTO	16/04/25	30/04/25	90% Onsoins	
	ELIADE	AMDL assembly and test of the motorhad performe	21/04/25	1606/25	04	
	EURPS	APPL - assembly and test of the motorized periscope	21/04/25	16/03/25	010	
	EUAPS	AMPL - assembly and test of the motorized periscope	21/04/25	16/05/25	0%	
	SABINA	PIPE -> controlli per pompe	21/04/25	12/05/25	20% Ongoing	
	SABINA	PIPE -> controlli per pompe	21/04/25	12/05/25	60% Ongoing	NP, FINE TRA DUE SETT.
	EUAPS	FLM - Installazione camere e compressore tetto	21/04/25	09/05/25	100% Ongoing	NP
	TEX2	Installazione vac/mec	23/04/25	31/12/25	6%	
	TEX2	Installazione vac/mec	23/04/25	31/12/25	6%	
	TEX2	Installazione vac/mec	23/04/25	31/12/25	6%	
	TEX2	Installazione vac/mec	23/04/25	31/12/25	6%	
	EUAPS	CTR - Installazione Flame	24/04/25	10/07/25	0%	
	EUAPS	CTR - Installatione Flame	24/04/25	10/07/25	0%	
	EUAPS	CTR - Installatione Sparc	24/04/25	10/07/25	0%	
	FLIAPS	CTR - Installatione Sparc	24/04/25	10.07/25	0%	
	FLIAPS	AMPL - Tran alignment	050505	16/05/05	014	
	CARINA	THZ BLOCCO CEMENTO MA > months and the second second	05/05/23	06/06/06	076	NI/ONO INIZIO TRA 2 SETT
	CABINA	TVT. DIDIDIO - and al	05/05/25	00/00/25	0%	NUCLO INIZIO TRA 2 SETT
	GABINA	Ing Printo Polani	05/05/25	30/06/25	0%	NUUVUINIZIU INA 3 SEIT.
	EUAPS	PLM - Lesi camera interazione PLAME	05/05/25	23/05/25	0%	
	EUAPS	FLM - Modifiche camera pulita	08/05/25	09/06/25	80% Ongoing	
	EUAPS	FLM - Modifiche camera pulita	08/05/25	09/06/25	80% Ongoing	
	EUAPS	FLM - Allineamento camere tetto	09/05/25	15/05/25	0%	
	SABINA	PIPE -> installazione post-prima flag	12/05/25	13/06/25	0%	Dopo anivo pipe
	SABINA	PIPE -> installazione post-prima flag	12/05/25	13/06/25	0%	Dopo anivo pipe
	SABINA	PIPE -> installazione post-prima flag	12/05/25	13/06/25	0%	Dopo anivo pipe
	EUAPS	FLM - Installazione rack (Tetto)	15/05/25	22/05/25	0%	
	EUAPS	FLM - Installazione rack (Tetto)	15/05/25	22/05/25	0%	
	FUAPS	SPR - Montaggio camere Sparc	15/05/25	05/06/25	50%	
	SARINA	PROTEZIONE ONDUII ATORI - L/girtier giallo) -> instali asione in linea	16/05/05	13/06/05	40%	
	ELIADE	AMPL - Main Amplifier alignment	19/05/23	06/06/07	4070	
-	EULADO	AMDL Tast & Validation of DOA Dame Allo	10/05/25	22/06/06/25	076	
	EUNPS	Ammunication of How on Plame CVC	19/05/25	23/05/25	0%	
	EUAPS	Amrs vacuum equipment connection	19/05/25	23/05/25	0%	1
	EUAPS	AMPL - Vacuum equipment connection	19/05/25	23/05/25	0%	
	SABINA	THZ - CAMERE VUOTO - M5 -> disegno	19/05/25	31/07/25	0%	
	SABINA	THZ - CAMERE VUOTO - MD -> disegno	19/05/25	31/07/25	0%	
	SABINA	THZ - CAMERE VUOTO - M5 -> disegno	19/05/25	31/07/25	0%	
	EUAPS	FLM - Installazione connessioni vuoto tetto	19/05/25	22/05/25	0%	
	EUAPS	FLM - Installazione connessioni vuoto tetto	19/05/25	22/05/25	0%	VERIFICARE SCHEDULA
	Attività SPARC	Sparc - Cathode Replacement	19/05/25	23/05/25	0%	DATA DA DEFINIRE
	Attività Spano	Spart - Cathode Replacement	1905/20	23/05/25	0%	DATA DA DEFINIRE
	Amura SPANG	Spare - Cathoda Baolacament	10,05/25	23/03/23	0%	DATA DA DEFINIRE
	Advita SPARG	Span - Gaudde Replacement	19/05/25	23/05/25	0%	DATA DA DEFINIRE
_	Advita SPARC	oparc - Gaudde Replacement	19/05/25	23/05/25	0%	DATA DA DEFINIRE
	EUAPS	FLM - Attrezzaggio camere Bunker	23/05/25	06/06/25	0%	
		FLM - Attrezzaggio camere Bunker	23/05/25	06/06/25	0%	
	EUAPS		220505	06/06/25	0%	
	EUAPS	FLM - Attrezzaggio camere Bunker	23/09/29	0000012.0		
	EUAPS EUAPS EUAPS	FLM - Attrezzaggio camere Bunker FLM - Integrazione camere	23/05/25	09/06/25	0%	
	EUAPS EUAPS EUAPS EUAPS	PLM - Attrezzaggio camere Bunker FLM - Integrazione camere FLM - Integrazione camere FLM - Integrazione camere	23/05/25	09/06/25	0%	
	EUAPS EUAPS EUAPS EUAPS EUAPS	FLM - Attrezzagio camere Bunker FLM - Integrazione camere FLM - Integrazione camere FLM - Integrazione camere vuoto tetto	23/05/25 23/05/25 23/05/25 23/05/25	09/06/25 09/06/25 06/06/25	0% 0% 0%	
	EUAPS EUAPS EUAPS EUAPS EUAPS EUAPS	RM - Antezzagio camere Bunker RM - Integratione camere RM - Integratione camere RM - Integratione camere vuoto tetto RM - Integratione camere vuoto tetto	23/05/25 23/05/25 23/05/25 23/05/25 23/05/25	09/06/25 09/06/25 06/06/25 06/06/25	0% 0% 0%	
	EUAPS EUAPS EUAPS EUAPS EUAPS EUAPS EUAPS EUAPS	RM - Attrezzaggio camere Bunker RM - Integrazione camere RM - Integrazione camere vuoto tetto RM - Integrazione camere vuoto tetto RM - Integrazione camere vuoto tetto RM - Integrazione camere vuoto tetto	23/05/25 23/05/25 23/05/25 23/05/25 23/05/25 23/05/25	09/06/25 09/06/25 06/06/25 06/06/25 06/06/25	0% 0% 0% 0% 0%	



PROJECT MANAGEMENT TOOLS - DASHBOARDS

- Workload for each group. ONLY for technical demanding projects.
- Several dashboard to assess overall project status



01	2025-02	2025-03	2025-04	2025-05	2025-06	2025-07	2025-08	2025-09	2025-10	2025-11	2025-12
)%	35.26%	35.69%	41.43%	47.72%	39.46%	23.00%	11.73%	16.12%	20.58%	22.05%	16.33%
3%	20.71%	21.83%	84.13%	35.38%	11.88%	37.68%					
5%	1.65%	7.89%	12.16%	10.60%	5.59%		2.18%	2.42%			
3%	15.83%	5.83%	9.80%	39.17%	25.58%	12.28%	7.50%	6.89%	1.63%		
4%	15.00%	15.87%	15.87%	15.00%	15.00%	13.04%			13.04%	15.00%	20.00%
)%	30.91%	39.20%	26.15%	22.14%	24.67%	3.46%	28.00%	24.20%	21.22%		
4%	22.22%	30.33%	44.19%	47.78%	62.15%	23.01%	0.01%	10.35%	20.29%	20.00%	17.78%
3%	79.45%	79.21%	110.91%	128.83%	53.79%	28.40%		33.74%	62.50%	65.63%	42.19%
7%	30.35%	43.00%	30.67%	34.33%	31.38%	27.97%	17.73%	20.36%	25.65%	26.25%	23.94%
5%	46.90%	43.04%	31.55%	41.01%	39.85%	36.68%	26.26%	44.46%	52.31%	24.38%	22.50%
4%	88.51%	83.25%	110.13%	105.90%	119.62%	69.18%	23.13%	38.30%	37.17%	73.22%	46.42%
5%	64.33%	57.56%	45.48%	63.75%	47.88%	26.30%	13.28%	23.10%	39.78%	50.72%	17.50%
2%	17.05%	13.26%	14.34%	15.91%	18.13%	8.29%	7.64%	7.95%	5.92%	5.91%	5.91%
4%	70.90%	64.89%	85.42%	121.46%	91.08%	53.86%	32.37%	9.49%	15.52%	26.94%	30.83%
)%	35.26%	35.69%	41.43%	47.72%	39.46%	23.00%	11.73%	16.12%	20.58%	22.05%	16.33%



PROJECT MANAGEMENT TOOLS - RISK MITIGATION

General overview of resource allocation on technical demanding projects

- Critical allocation on several groups during due EuAPS first semester mainly to Installation program
- Over allocation means that we are essentially working on the contingencies allocated - high risk on schedule
- Over allocation concentrated on specific weeks and remodulation is possible without affecting the overall schedule (for activities not in the critical path).
- This risk is mitigated through a detailed analysis week by week and to readjust the schedule for those activities that do not impact the final deadlines.

ASSIGNMENTS HEATMAP



2025-01	2025-02	2025-03	2025-04	2025-05	2025-06	2025-07	2025-08	2025-09	2025-10	2025-11	2025-12
21.90%	35.26%	35.69%	41.43%	47.72%	39.46%	23.00%	11.73%	16.12%	20.58%	22.05%	16.33%
33.33%	20.71%	21.83%	84.13%	35.38%	11.88%	37.68%					
1.06%	1.65%	7.89%	12.16%	10.60%	5.59%		2.18%	2.42%			
10.08%	15.83%	5.83%	9.80%	39.17%	25.58%	12.28%	7.50%	6.89%	1.63%		
7.94%	15.00%	15.87%	15.87%	15.00%	15.00%	13.04%			13.04%	15.00%	20.00%
11.60%	30.91%	39.20%	26.15%	22.14%	24.67%	3.46%	28.00%	24.20%	21.22%		
8.04%	22.22%	30.33%	44.19%	47.78%	62.15%	23.01%	0.01%	10.35%	20.29%	20.00%	17.78%
61.43%	79.45%	79.21%	110.91%	128.83%	53.79%	28.40%		33.74%	62.50%	65.63%	42.19%
14.37%	30.35%	43.00%	30.67%	34.33%	31.38%	27.97%	17.73%	20.36%	25.65%	26.25%	23.94%
19.25%	46.90%	43.04%	31.55%	41.01%	39.85%	36.68%	26.26%	44.46%	52.31%	24.38%	22.50%
59.64%	88.51%	83.25%	110.13%	105.90%	119.62%	69.18%	23.13%	38.30%	37.17%	73.22%	46.42%
59.75%	64.33%	57.56%	45.48%	63.75%	47.88%	26.30%	13.28%	23.10%	39.78%	50.72%	17.50%
14.82%	17.05%	13.26%	14.34%	15.91%	18.13%	8.29%	7.64%	7.95%	5.92%	5.91%	5.91%
19.34%	70.90%	64.89%	85.42%	121.46%	91.08%	53.86%	32.37%	9.49%	15.52%	26.94%	30.83%
21.90%	35.26%	35.69%	41.43%	47.72%	39.46%	23.00%	11.73%	16.12%	20.58%	22.05%	16.33%

PROGRAM 2025 | FACILITIES

PROGRAM 2025 | PROJECTS

All the projects are progressing well, with few marginal and not critical delays.

- EuAPS is in the installation phase. Some critical components are expected by the summer and start-up is expected in september \rightarrow to be concluded within 30/11/2025.
- TEX2 is progressing although experienced some procurement delays. SAT of the X-Band and C-Band RF Stations is now expected after summer. Not critical for project completion and in line with X-Band structure production.
- SSRIP is slowing down due to utilities installation at ELI-np premises and they will restart in September.
- SABINA is completing the installation of the beamline
- EUPRAXIA TDR is now being completed and a first draft is about to be issued in few weeks. Final approval and presentation to INFN executive board is scheduled by the end of the year.

PROJECTS STATUS - TECHNICAL DIVISION

Project	Duration	Estimated end	Budget	Funding source	Туре	Status
PV - System	10	13/06/25	6.584.488	TICC	Infrastructure	Ongoing ; >80%
Revamping SPARC	13	18/04/25	120.000	Internal Funds Infrastructure		To be started soon
HVAC ed 13	24	28/02/26	300.000	Internal Funds	Infrastructure	Funds to be assigned
District Heating	36	possibly 31/12/25	300.000	Internal Funds	Infrastructure	Still to be approved
EuPRAXIA Building	36	01/06/25 (tender)	42.0000.000	GE	Infrastructure	Ongoing External Verification to be concluded soon. Tender for the construction under preparation. ON SCHEDULE
HVAC ed 12	24	31/12/25	200.000	TICC	Infrastructure	Funds to be assigned
ICSC	36	17/09/25	6.088.000	PNRR	R.I.	Ongoing ; 30%
BLDG 2 - Refurbishment	6	30/10/25	600.000	Internal Funds		Ongoing

Several technical demanding ongoing project will be concluded by the end of 2025.

- TEX2 will conclude the upgrade program and will be operational by the end of the year.
- EuAPS MUST be concluded by 30/11/2025. Afterwards a full commissioning program will start to become operational soon after.
- SABINA is expected to be concluded in large part by the end of year and some part first quarter 2026.
- SSRIP strongly depends on the ELI-np facility and it is expected to be concluded mid of 2026.
- IRIS will be concluded by the end of the year. For the next period a consolidation program is foreseen to make the magnetic measurement lab fully operational.

ded by the end of 2025. Perational by the end of the

From 2026 on LNF will increase its technological assetts with two additional operating facilities : TEX2 and EuAPS.

It is important to strategically assess the resource allocation between projects and operational activities in order to find a sustainable balance in the long term and find out if there is shortage of manpower.

For operational activities is intended:

- Runs of the facilities (also with shifts)
- Maintenance (ordinary and extra-ordinary)
- Consolidation
- Small upgrades

LONG TERM VIEW - FACILITIES

In the upcoming years the existing facilities will be consolidated and a comprehensive scientific program will be implemented.

- LINAC / BTF will continue the user facility program together with some upgrades and consolidation activities
- SPARC_LAB will keep supporting the R&D work for EuPRAXIA, while offering beam time for user with the **SABINA** infrastructure
- TEX will serve the preparatory work for the validation and test of EuPRAXIA X-Band technology and at the same time will be opened to external users
- will start its scientific activities supported by FLAME together with a • EUAPS consolidation and upgrade program and once the final commissioning will be completed, it will be opened to users.

LONG TERM VIEW - FACILITIES

A long term strategic approach on resource allocation strongly depends on boundary conditions and some assumptions to be made.

Constant personell \rightarrow Temporary contracts transformed into Permament Contract or (not preferrable scenario) replaced by other temporary contracts.

No side projects showing up. This is an hypotetical scenario, in any case additional projects must be carefully evaluated in terms of impact on the long term strategic approach.

At this stage no DAFNE runs are estimated. The ongoing assessment (see next talks) will be then integrated in this long term baseline once finalized.

LONG TERM VIEW - FACILITIES RESOURCE ALLOCATION

The scientific program, maintenance, consolidation and operation of the facilities require a reasonable amount of resources distributed among different groups.

Human **and financial** resources are required

Up to day the budget needed for SPARC_LAB has not been assigned yet and it is currently draining Acc.Div budget.

An agreed and clear budget for each facility should be assigned at the beginning of the fiscal year to guarantee a proper operation.

At this stage it is impossible to foresee the number of projects that will show up in the next years.

The current landscape of research funding show a fragmentation of resources into a number of projects / calls. No Guarantee that the number of projects will decrease.

It is evident that **EuPRAXIA** is representing the flagship project of the Lab due to the committements taken, its size and relevance.

INFN-LNF is also acting as lead institute of the overall EuPRAXIA collaboration therefore we have a responsibility towards the whole community.

EuPRAXIA Preparatory Phase Project and the next *early implementation phase* grant will pave the way to the creation of a new legal entity led by INFN-LNF

LONG TERM PERSPECTIVE

Scientific Commitee , 14/05/2025

di Fisica Nuclear nali di Frascati

LONG TERM PERSPECTIVE - RESOURCE ALLOCATION

Based on the Work Breakdown Structure of EuPRAXIA Implementation Phase Project and based on the Acc.Div and Tech.Div Group *

TEX & SPARC_LAB ActivitiesHarefullyfunctionalandsynergictoEuPRAXIA@SPARC_LAB.

If we consider this approach the overall allocation to EuPRAXIA is 30 FTE Higher

* It does not take into account effort from other institutes e.g. ENEA, Universities etc. Scientific Commitee , 14/05/2025

CONCLUSIONS

SHORT TERM VIEW

The PMO is consolidating tools & methodologies for a proper harmonization of the technical demanding projects among Acc.Div and (partially) Tech.Div.

Projects are progressing well with few marginal delays and re-scheduling.

Over allocation on some groups and consequent risks are highlighted, controlled and whenever is possible mitigated.

LONG TERM VIEW

In the long term, a strategic approach is meant to find a sustainable balance between the running and consolidation of the existing facilities and their experimental program, together with the implementation program of EuPRAXIA.

At first glance a reasonable implementation plan is feasible and compatible with the facilities operation, provided the boundary conditions do not change significantly.

Reinforcement of some groups will be required in the long term, and a continuos stream of students /PhDs and post-docs will be also crucial. Also additional skills must be implemented (e.g. beamlines scientistis)

- Consolidation of PM best practices.
- Introduction of KPI and milestones trend monitoring tool
- Implementation of EVM for EuPRAXIA@SPARC_LAB implementation phase
- Finalization of the Project Management Plan of EuPRAXIA@SPARC_LAB
- Upgrade of the software tools and increase automatization