EUROPEAN PLASMA RESEARCH ACCELERATOR WITH EXCELLENCE IN APPLICATIONS



WP.4 Legal & Financial Model. Economic Impact

A.Falone | EuPRAXIA – PP Kickoff Meeting Frascati, 26/11/2022



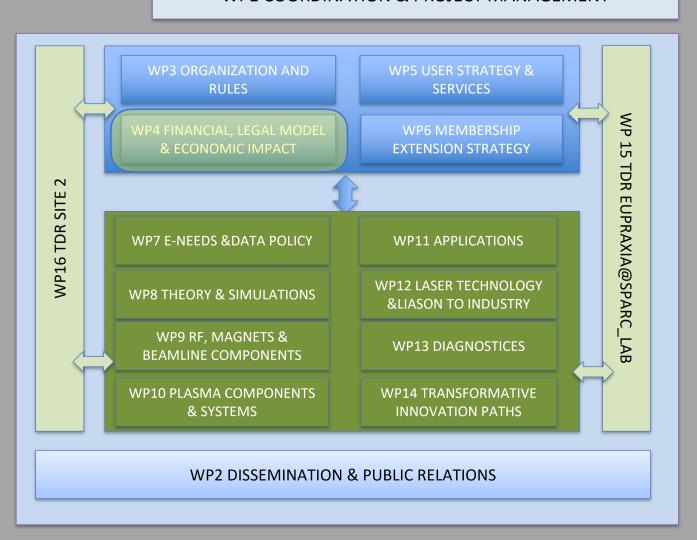




EuPRAXIA-PP Structure



WP1 COORDINATION & PROJECT MANAGEMENT



Selected Committees and Boards

GOVERNING BOARD

(decision-making body, 1 representative per institute)

Steering Committee (coordinator plus WP leaders plus experts)

Scientific/Technical
Advisory Board
(external experts in user
services, RI implementtation, ESFRI aspects and
technical themes)

Board of Financial Sponsors (connection to decision makers and funding authorities)



Time line to the implementation





We are half way. The Preparatory Phase however marks the beginning of the consolidation of the EuPRAXIA initiative and a significant step towards the full implementation phase.

phase

Decision on 2nd Implementation Site

2025

2026
Beam driven pillar start implementation &
End of preparatory

Legal structure and start implementation

2027

Οὐκοῦν οἶσθ' ὅτι ἀρχὴ παντὸς ἔργου μέγιστον, ἄλλως (Plato, Πολιτεία), 380b.C. approx

You know that the beginning is the most important part of any work,

(Plato, The Republic) 380b.C.approx



WP.4 Goal and Purpose



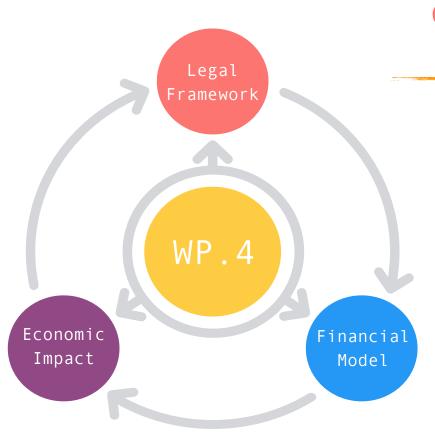
The primary objective of WP4 is to develop the financial and legal model of EuPRAXIA as a sustainable research infrastructure providing access to users.





WP structure and vision





Legal Framework

- Review of the legal frameworks available.
- Identify legal requirements.
- Develop legal model status and agreements.

Financial Model

- Evaluate funding models and identify funds for the implementation.
- Update budget for implementation and cost of services to users.
- Support WP1 in negotiations with the board of financial sponsors.



Economic Impact

- Identify a suitable model for the assessment of the economic impact.
- Update the socioeconomic impact performed for ESFRI.



Deliverable & Milestones



Deliverables

ld.	Deliverable Name	Due Date
D4.1	Report on benchmark of financial and legal models of comparable RI	M12
D4.2	Cost Implementation and service preliminary assessment	M24
D4.3	EuPRAXIA Socioeconomic Impact assessment	M40
D4.4	Report on final financial and legal model including RI governance and management	M46

Milestones

ld.	Deliverable Name	Due Date
M4.1	Report on legal requirements from partners	M18
M4.2	Approval by the CB of drafts for the legal and financial packages	M36
M4.3	Approval by the board of financial sponsor of the legal and financial packages	M40

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Schedule



	Year 1	Year 2	Year 3	Year 4
 D4.1 Report on benchmark of financial and legal models of comparable RI 				
 D4.2 Cost Implementation and service preliminary assessment 				
 D4.3 EuPRAXIA Socioeconomic Impact assessment 				\
 D4.4 Report on final financial and legal model including RI governance and management 				
M4.1 Report on legal requirements from partner		→		
M4.2 Approval by the CB of drafts for legal and financial packages				
M4.3 Approval by the board of Financial Sponsor of the legal and financial packages				



Legal Framework



From strategic vision to legal governance

The choice of the legal framework for a RI is always a specific issue. The best approach is to try, before starting to discuss the legal form and define the governance, to have a clear vision of what will be the functions, the mission, and the scope of the project.



STAKEHOLDER REQUIREMENTS



Legal Framework



- Stakeholder identification
- Stakeholder requirements
- Survey of the whole spectrum of possible legal framework
- Pro&Cons of each solution
- PESTEL Analysis
- Dedicated WGs to harmonize the outcome of this WP will be required



PESTEL Analysis for legal framework



used to analyze all the possible implication derived by the adoption of a general strategy for the implementation of a given legal framework

Political
Conomical
Social
Technological
Environmental
Legal

Legal framework should be politically acceptable by all stakeholders / shareholders, able to effectively manage the financial models, be social inclusive and be flexible for recruiting and fit to the technological and scientific vision of the project.



European Research Infrastructure Consortium



EC Council Regulation (No 723/2009) providing a common legal frame for European Research Infrastructures Consortium (ERIC).

Main Features:

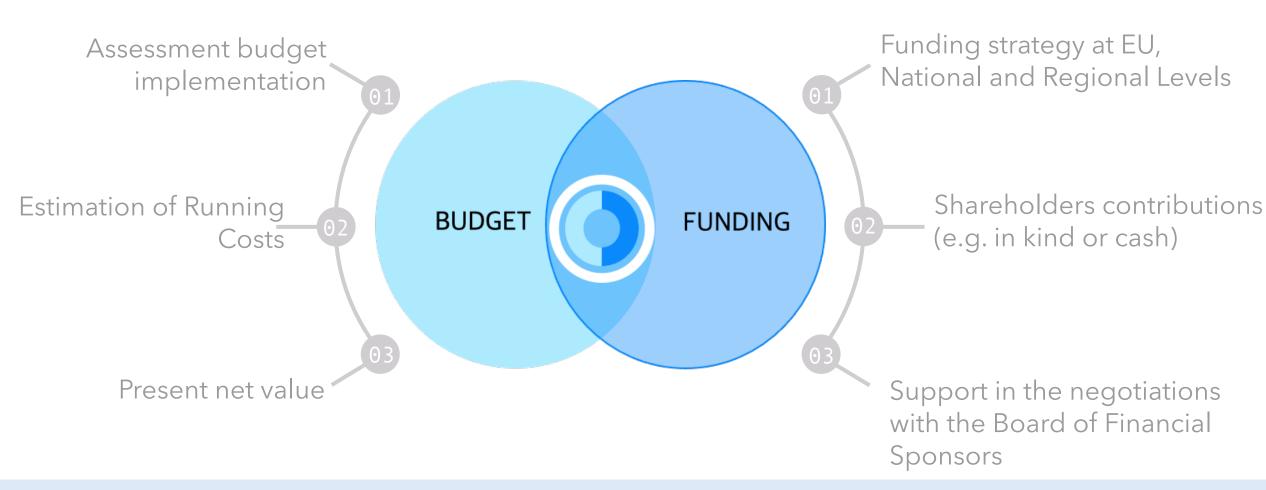
- Provide a legal personality which is recognized in all Member States
- Reflect the spirit of a truly European Venture
- Be Flexible to adapt to the requirements of specific infrastructures
- Be easy to use and speed up the process of setting up the infrastructure
- Provide some of those privileges and exemptions which are allowed at national level granted for non-profit research
- Allow the attraction and flexible management of human resources.



Financial model



Financial model has the goal to identify all the possible financial framework in order to ensure a proper implementation phase and a smooth transition to the operational phase. Also sustainability in the long term must be assessed (i.e. operational and decommissioning costs).





Budget estimation







Cost Categories

- Investment
- Personnell
- Construction
- Running costs
- Decommissioning

@ Present Net Value



Economic Impact



Identification and implementation of a methodology to quantify the value of knowledge generated by the distributed RI and possible revenues. This includes:

- Patent
- Spin-off
- PhD
- Grant (EU, National, Regional)
- Technology transfer
- Economic impact to the industrial fabric e.g. Jobs employment
- Indirect benefit to the local economies (travels, conferences etc...).

Economic impact assessment is a powerful tool for lobbying and endorsement at political level



Economic Impact



Indicators typically used to assess economic benefits of a RI to be customized w.r.t. EuPRAXIA case:

- Knowledge Typical benefit indicators: Number of Publications in Impact factor journals, Number of Publications in other journals, Value of the access granted to external researchers through an open access policy
- Development Typical benefit indicators: Number of National patents granted, National patents operated in practice, International patents (Europe, USA, Japan) granted, Number of Technologies developed in-house and transferred, Number of Prototypes developed, and Number of methodologies/industrial designs transferred.
- **Education and training** Typical benefit indicators: Number of graduates (M.A. level) trained in the infrastructure, Number of graduates (PhD level) trained in the infrastructure, Number of students (MA, Ph.D.) using the infrastructure.
- Employment Typical benefit indicators: Number of newly created jobs (non-research staff), Number of newly created jobs (researchers), Number of newly created jobs (researchers under 35 years).
- Knowledge transfer and collaborations Typical benefit indicators: Number of collaborative projects with application sphere, Volume of contract research, Volume of competitive funding (national), Volume of international grants.

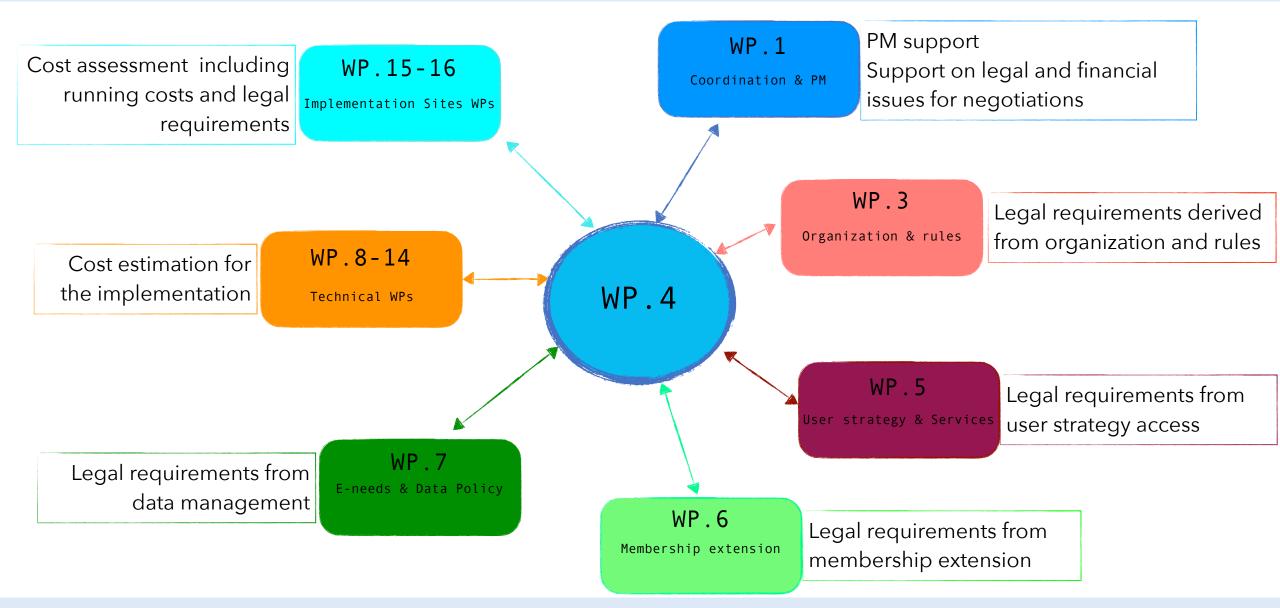


Numerical indicators and their weight have to be assessed



Correlation with other WPs

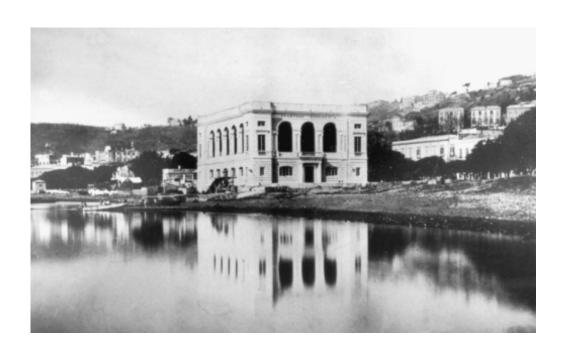






Conclusions





In 1874 in Naples (Italy) Anton Dohrn with creativity, vision and perseverance, founded the first modern research infrastructure in Europe where biologists and scientists were offered a modern facility for their studies. The facility is still working today (www.szn.it).



After almost 150 years and preserving the same spirit we are about to build a new research facility in south of Europe.