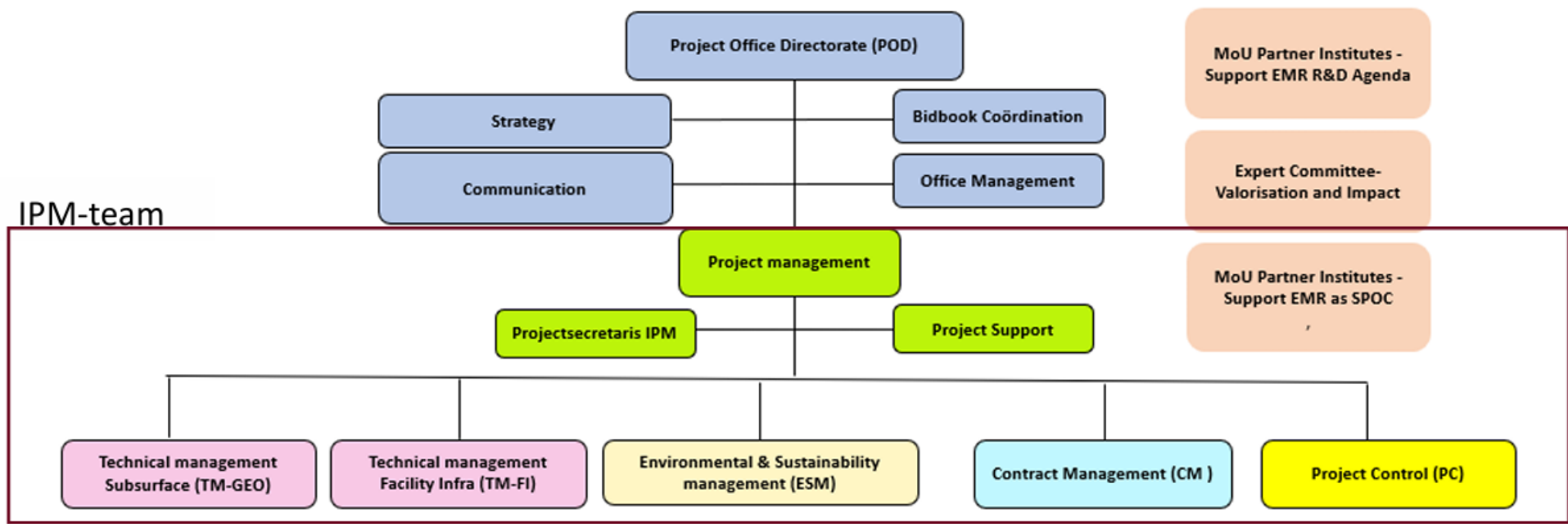


- Opening and introduction round

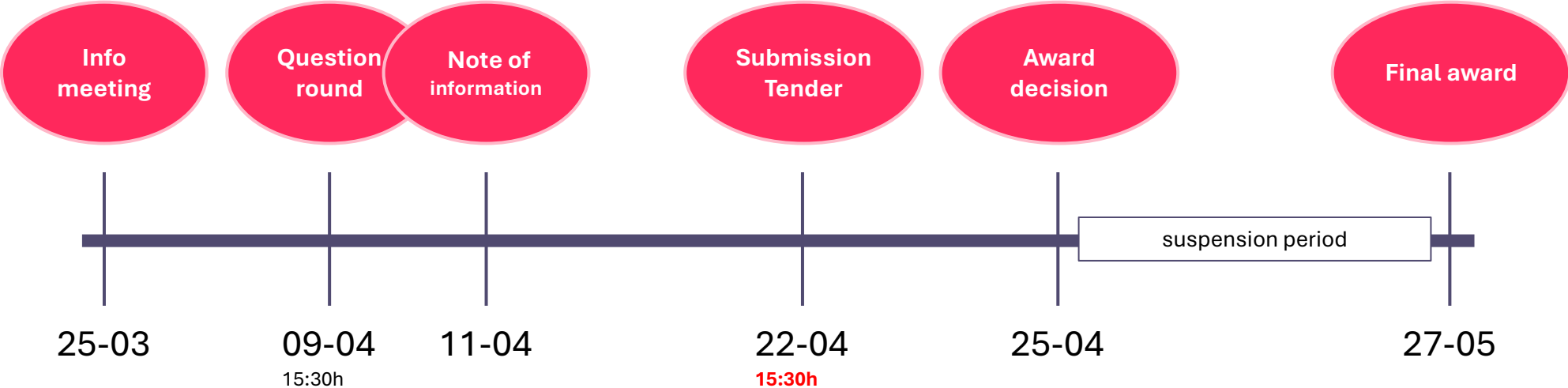
'During the information meeting, there is an opportunity to ask questions, which will be answered immediately as far as possible. However, for an official answer to the relevant questions, from which rights can be derived, they should be asked (again) as part of the Information Notice (Nvl).'

- Project Office ET-EMR
- Tender procedure
- Economic feasibility study
- Questions

Project Office ET-EMR



Tender procedure – Timeline



Start date of agreement: 28-05-2025
(end date 31-12-2026)

Method of registration

1

Eligibility requirement, demonstrate with references

- Sufficient technical and professional competence (past 3 years).

Core competences:

- *Project management and reporting skills;*
- *Knowledge of feasibility studies on impact of large scale research infrastructures;*
- *Knowledge of feasibility studies on the business case of large scale research infrastructures.*

Method of registration

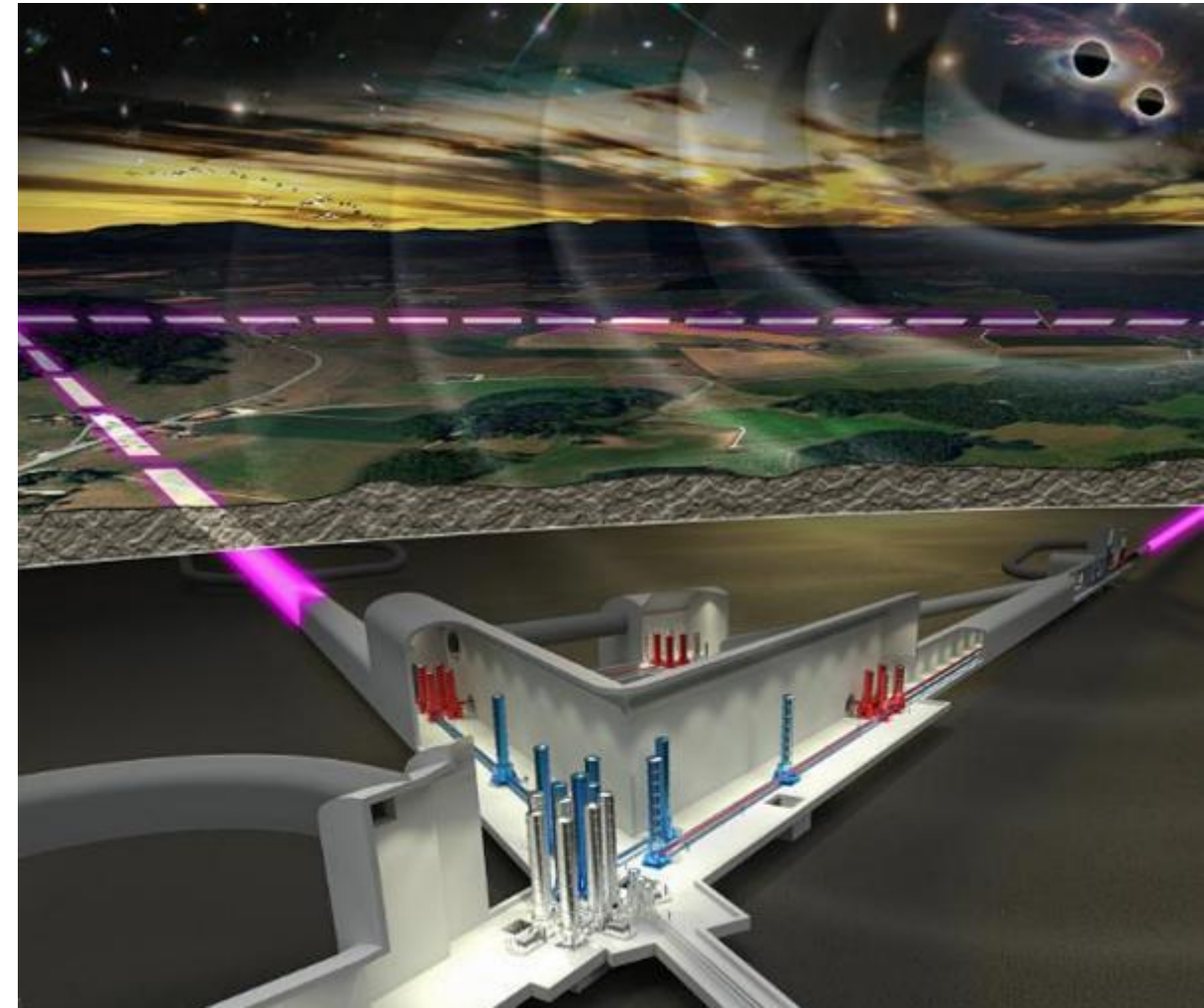
2

Best Price (40%) – Quality (60%) Ratio

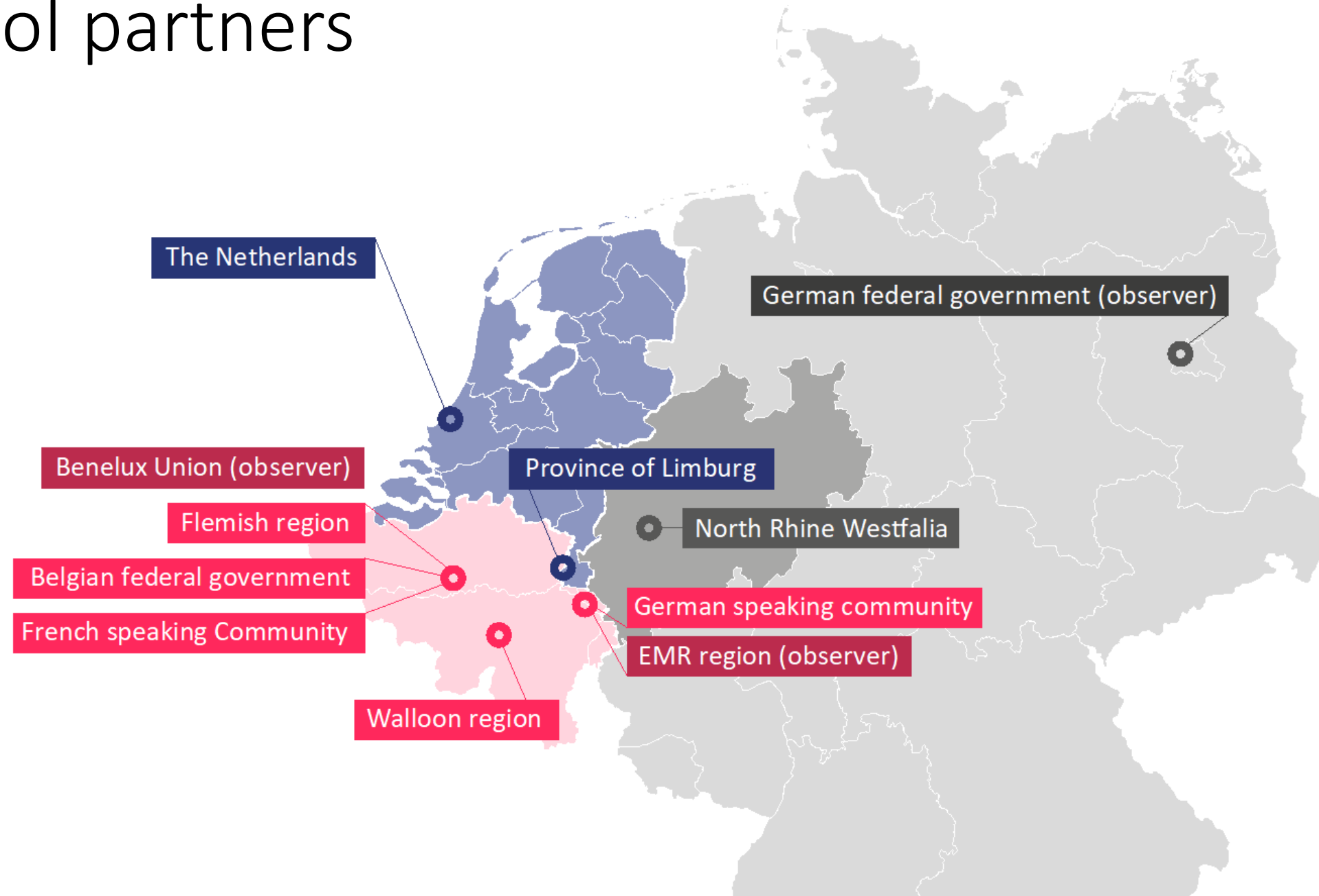
- Price: $Score = \left(\frac{Lowest\ Price\ "LP"}{Price\ registrant\ "Pr"} \right) \times 100\ points$
 - Impact case feasibility study (quantity * unit price per team member)
 - Business case feasibility study (quantity * unit price per team member)
- Quality: Project plan [0 - 40 - 60 - 80 - 100 points]
 - Project approach [insufficient – sufficient – ample - good – Excellent]
 - Project plan [insufficient – sufficient – ample - good – Excellent]
 - Competences of the team [insufficient – sufficient – ample - good – Excellent]

ET-EMR Bidbook

1. EMR partner context
2. The target groups and targets
3. Work packages and planning
4. Work package 3



Dol partners



ET-EMR Ministers (26.09.2023)

**DECLARATION OF INTENT
BETWEEN THE REPRESENTATIVES
OF THE STATES AND REGIONS IN
THE THREE-BORDER REGION
BELGIUM-GERMANY-NETHERLANDS**



Section 1 PURPOSE

This Declaration of Intent (DoI) aims to establish a framework for collaboration among the Participants on the preparation and submission of the proposal for building the ET in the three-border region Belgium-Germany-Netherlands, hereafter referred to as the Three-Border Region Einstein Telescope Project (the Project).

This region is usually referred to as the 'Euregio Meuse-Rhine' (EMR). Whenever 'EMR' is used in this DoI, it only refers to this geographical location, without any reference to legal or other dimensions that may otherwise be associated with it.

The purpose of the collaboration framework is.

1° To prepare the establishment of a consortium;

2° To outline the engagement and responsibilities of each Participant within the consortium to be,

3° To promote the development of research and innovation in the field of gravitational wave detection and related technologies,

4° To foster regional and international cooperation to economic and social growth and indicate economic opportunities and leverage complementary expertise within the participating countries in the three-border region.

ET-EMR Ministers (30.5.2024)



2.1. Plan, budget and bidbook preparation

The ET-EMR Project Office will oversee the day-to-day operation related to the preparation of the proposal of the ET project. It will prepare the plan and budget proposal for feasibility studies and will carry out their implementation. It will provide the Task Force with a quarterly progress report reflecting changes in costs, available funding, interim findings of the feasibility studies, etc. It will remain at the disposal of the Task Force for additional reporting requests.

Upon the availability of the required resources, the ET-EMR Project Office will support the Task Force in the necessary preparations of the bidbook and host consortium, by:

- Preparing one EMR framework for the bidbook (with the Einstein Telescope Organisation (ETO) and EMR experts);
- Leading the process management and writing the bidbook (with proposed suppliers);
- Including the EMR Research & Development agenda (of the cooperating research institutes in the EMR);
- Including the valorisation & impact agenda (of the Valorisation & Impact Expert Committee);
- Supporting the international partner strategy (of the Working Group);
- Supporting stakeholder management, communication and events (of the Working Group);
- Supporting governance, legal and finance proposals (together with the ETO and ET Preparatory Phase Project's Work Package 2 experts).

The Task Force supervises the work of the ET-EMR Project Office. It validates its plan and deliverables related to feasibility studies and bidbook. When doing so, it makes sure to stay aligned with decisions made by states and regions which provide funding in the framework of the above-mentioned Memorandum of Understanding.

Commitments of the three countries



Note: Research and innovation projects are not included in the table (additional).

The Netherlands;

- Preparations; NGF (23 M€) and Limburg (2 M€)
- Realisation; conditional reservation NGF (870 M€)

Germany;

- Preparations; NRW (10,9 M€) and federal (1.1 M€)
- Realisation; NRW commitment to co-finance NRW (coalition agreement) on the condition of a federal contribution (roadmap procedure running)

Belgium;

- Bidbook feasibility studies; VL, WAL and FED (12 M€)
- Realisation; political commitment in coalition agreements; Flanders already committed 200 M€ on a total Belgian contribution to be agreed

European context uncertain; scope risks

European Project Organisation:

- Design (incl. geometry)
- Timeline, organisation and budget
- Site characterization

> Anticipating a final roadmap proposal to be agreed and supported/ funded.

Board of Governmental Representatives:

- Organisation and budget
- Site selection

> Anticipating a first draft proposal of the “Working Group on Site Selection Procedure and Criteria” by 2026

Target Groups

Deciding target groups:

1. European Ministers deciding on the site (or those mandated)
2. EMR Ministers deciding on the bidbook and consortium proposals
> EMR Ministers/ Taskforce and delegations in the BGR lead

Influential target groups:

1. European community of scientists; supporting/ accepting the site
2. EMR science institutes, industry partners and various local support groups
> EMR Project Office reaching out by stakeholder management

Targets



1. The optimal plans to exploit the ET Science Case in the EMR (following the outcome of the feasibility studies)



2. The optimal plans to sustainably integrate the ET Infrastructure in the EMR (following the outcome of the feasibility studies)

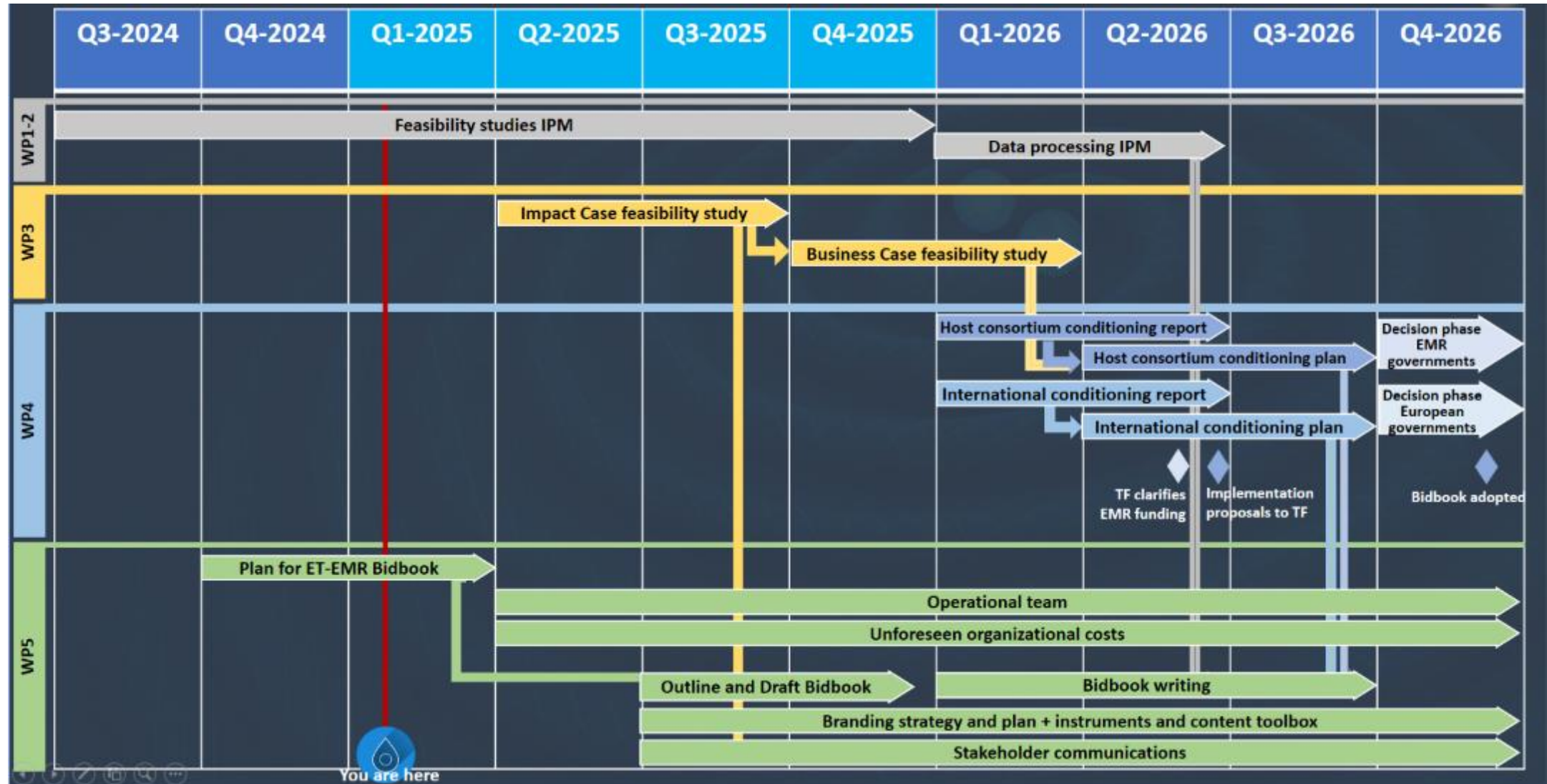


3. A solid business case and plan to drive the impact of the ET in the EMR (requiring additional activities)

Work packages

Work Packages	Purpose; to clear the...	Results	Actions
1. Science case	Conditions and plan to optimally exploit the science case	- Report on science conditions - Plan for science case exploitation	ET-EMR Project Plan on feasibility studies; final product (implementation plan) 2026 Q3
2. Infrastructure case	Conditions and plan for an optimal integration in the environment	- Report on infrastructure conditions - Plan for Infrastructure integration	
3. Economic case	Impact case (IC) feasibility study	- Report on Impact potential - Plan for Impact and conditions	Economic consultancy
	Business case (BC) feasibility study	- Report on Business case conditions* - Plan for Business case realisation	Financial consultancy
4. Conditioning	EMR Governmental conditions	- Report on governmental conditions* - Plan to provide these conditions	Consultancy; legal, government and international public affairs
	International Governmental conditions (outside the EMR)	- Report on governmental conditions* - Plan to provide these conditions	
5. Product and Communication Management	Executive plan and organisation for the ET-EMR Bidbook	- Product and budget planning - Sounding boards for WP3 and WP4-5	Tenders, interaction and reporting; economic case and conditioning
	ET-EMR Project Branding; PO stakeholder communication.	- Writing of the ET-EMR Bidbook - Branding of site; conditions and plans - Communication activities plan	- Bidbook writing - Bidbook branding

Planning



BB-WP3- Economic Case; 2 feasibility studies

3.3. Impact Case feasibility study

Central question: *What valorisation, return and long-term impact is feasible when establishing the Einstein Telescope in the Meuse-Rhine Euroregion? What are the options and conditions?*

Starting point is the anticipated realisation of a full scope (triangle) Einstein Telescope in the Euregion Meuse-Rhine. The design, budget (costs and funding), governance and timeline are under discussion. There is already much information available with regard to the scope and impact potential as input.

The economic study will support political decision making; it is not to anticipate on these decisions beforehand. The study will also support the decision making on a European level with regard to the focus of housing the ET as a single sited facility in the EMR. And the study has to demonstrate a solid case for Europe and the benefits for other European countries to decide for the EMR and European best practices discussed. The EMR Steering Group also requests to organise an exchange of knowledge and experiences at other facilities and best practices.

<https://ted.europa.eu/nl/notice/-/detail/165245-2025>

Economic impact case framework (for discussion)

Following framework shows the ET project phases, impact aspects that require attention in the impact studies and planning and strategic questions:

	Preparatory phase/ detector R&D 2025-2035; preparing detector 1.0 & 2035-2085; upgrades development [ET budget scheduled; unknown*] Note; direct impact and no regret; site feasibility studies are excluded (incidental; low cost/return; regret)	Construction phase 2028-2035; integral infra construction 2035-2085; upgrades installation [ET budget scheduled; >2 B€*] Note; included are civil engineering, vacuum systems and detector	Operational phase 2035-2085; operation of infra and facilities [ET budget scheduled; >40 M€/year*] Note; included are all operational facilities for the Einstein Telescope
First order effects (direct): - Production of goods - Delivery of services - Direct employment	<i>Direct return of costs potential;</i> - Location boundness; - Competitive advantages; - Procurement regulations;	<i>Direct return of costs potential;</i> - Location boundness; - Competitive advantages; - Procurement regulations; What is the direct return case?	<i>Direct return of costs potential;</i> - Location boundness; - Competitive advantages; - Procurement regulations; What is the direct return case?
Spillover effects (structural): - Spinoffs and new products - Increased human capital - Higher added value	<i>Hi-tech valorisation development;</i> <i>Hi-tech business development;</i> Wat is the hi-tech valorisation case? Potential of existing and new facilities?	<i>Construction valorisation development;</i> <i>Construction business development;</i> Are there spillover effects in construction?	<i>Science valorisation development;</i> <i>Science business development;</i> Are there spillover effects in operation?
Ecosystem effects (structural): - Hi-tech & innovation clusters - Increased productivity - Talent/ skills development	<i>Hi-tech talent and skills development;</i> <i>Hi-tech ecosystem development;</i> What is the impact on the research and innovation ecosystems?	<i>Construction ecosystem development;</i> <i>Construction outreach facilities;</i> Are there ecosystem effects in execution?	<i>Science talent and skills development;</i> <i>Science ecosystem development;</i> <i>Settling of scientists and added value;</i> <i>STEM and outreach facilities and programs;</i> <i>EMR network and branding effects.</i> Scientists (4000) settling in EMR potential? What are the 'crown jewels' for the EMR?

*The construction and operation costing set out in the (European) ESFRI Roadmap 2021 is highly uncertain. The cost book is based on the design status and price levels from the year 2019, without taking into account price inflation that will continue to affect the budget until the start of operations (foreseen in 2035). This plan anticipates an update of the European ET plans for R&D (ETO with ET Collaboration) and the R&D landscape and plans of the EMR cooperating research institutes.

BB-WP3- Economic Case; 2 feasibility studies

The Impact Case feasibility study report is to address the following:

1. **Impact potential of the Einstein Telescope;**
2. **Impact potential for the ET-EMR Consortium countries;**
3. **Description of the economic impact model;**
4. **Plan for impact optimisation;**
5. **Management summary with an answer to the following questions:**
 - a) *What is the investment, return and valorisation impact potential of the preparatory phase? What are strategic and no regret investment options until the moment of site decision?*
 - b) *What is the direct return potential of the construction and operation of the Einstein Telescope? What are the options and their trade-off effects (science case; infra case; economic case) to optimize return?*
 - c) *What is the anticipated long-term and wider socioeconomic impact potential of operating the Einstein Telescope? What would be the conditions and (additional) facilities needed to optimally harvest the anticipated economic effects?*
 - d) *What are the options/ scenario's to balance the return/impact and break even with the costs, from the perspective of the ET-EMR Consortium countries (Belgium, Germany and the Netherlands) and other European countries interested in funding the Einstein Telescope? And how to translate this in the business case strategy.*