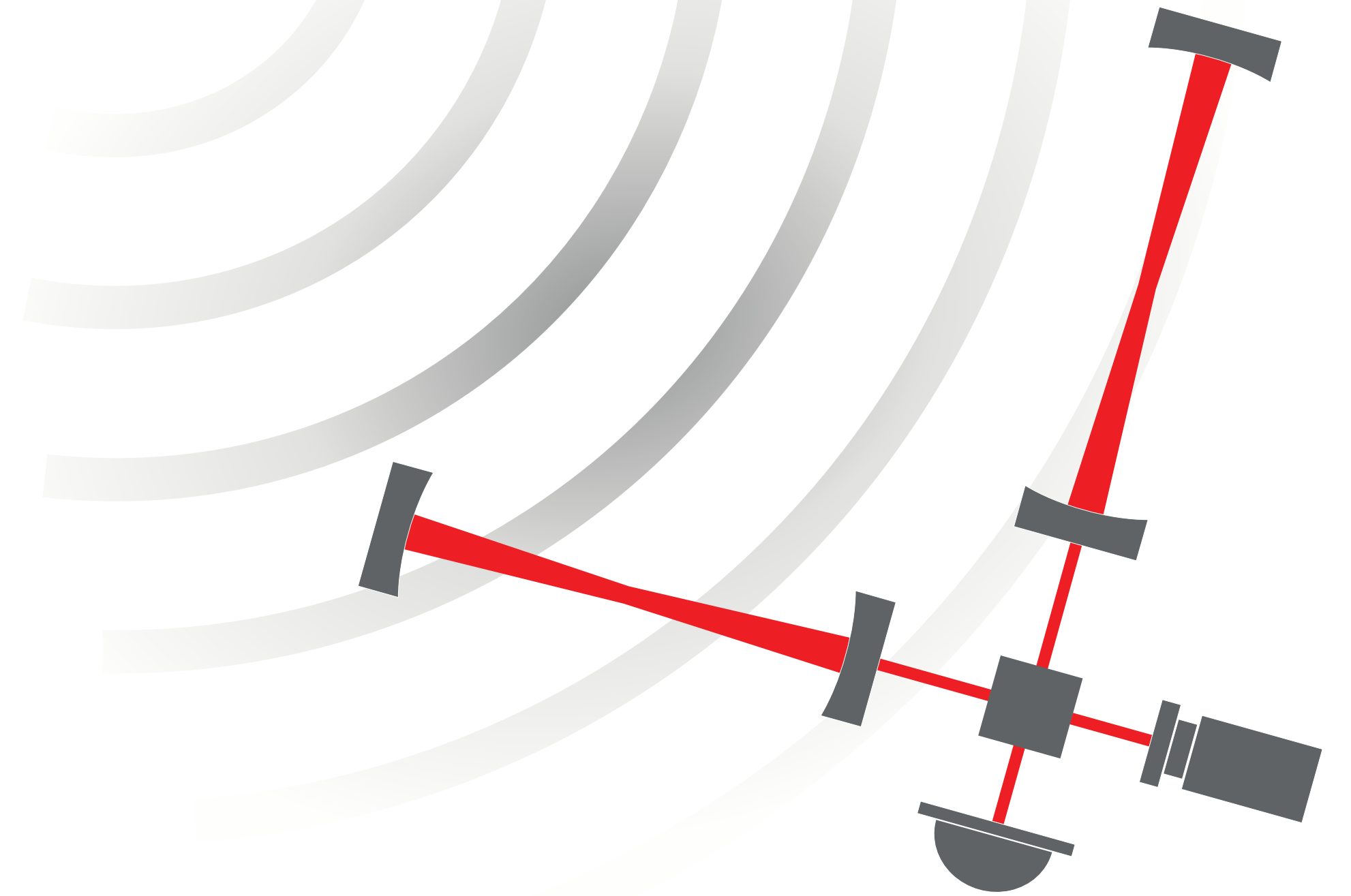
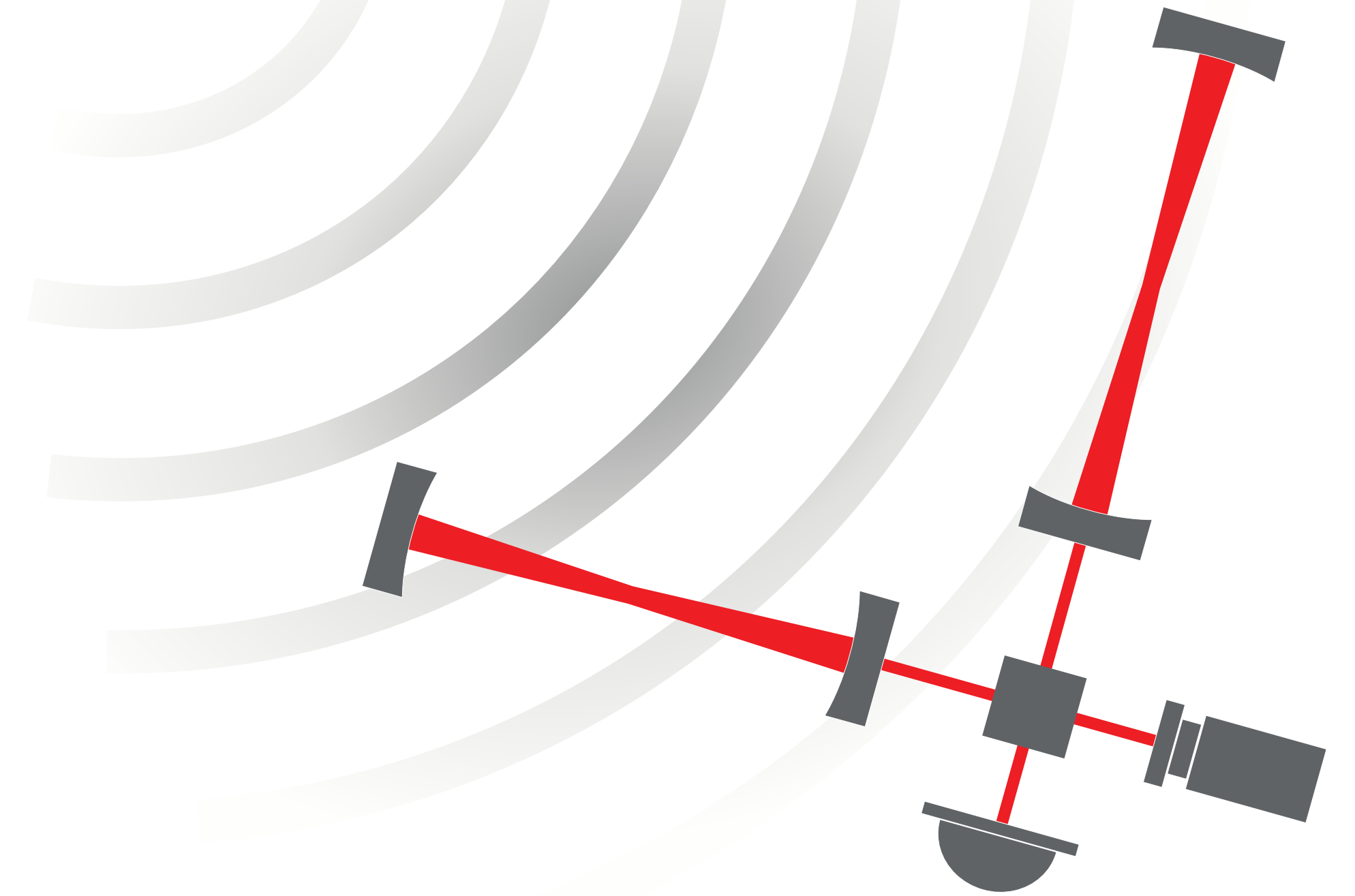


# ET Organisation (ETO), Directors' Update

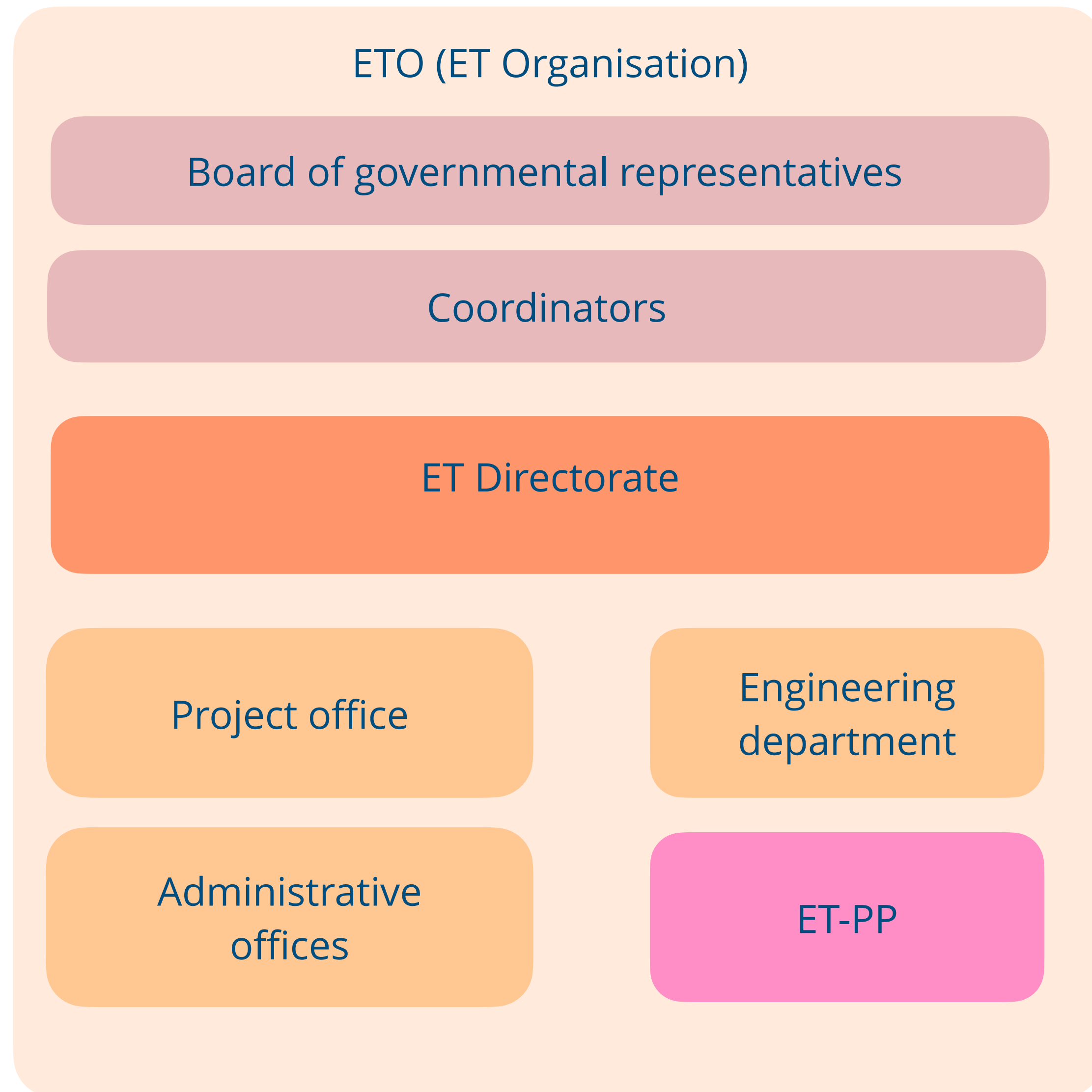
Andreas Freise, Fernando Ferroni,  
ET Symposium, ET-0309A-25, 29.05.2025



ETO, who are we?



# ETO: an novel organisation for realising the Einstein Telescope



**ET Organisation (ETO): a novel way of organising a large European project during the preparation phase and first part of the implementation phase.**

Based on experience from recent projects (CTA, SKA, KM3NET, etc), we developed a plan for:

- establishing direct governmental engagement
- creating a professional non-scientific organisation to coordinate and organise the ET Project.

# In plain words, ETO should:

- Answer the question: Is the Einstein Telescope feasible?
- Provide accurate and realistic costs and schedules.
- Control transparent and independent processes towards decisions points (which geometry, which site).
- Build an organisation to host the ET project.

# ETO updates at this symposium

We are here!

16:15 → 18:15

ISB / ETO Taskforce

Convener: Fiodor Sorrentino

16:15

**General introduction to ETO Design Task Force**

Speaker: Fiodor Sorrentino

Task force intro ET ...

16:25

**System decomposition**

Speaker: Romano Meijer (Nikhef)

Bologna\_Taskforce\_...

16:45

**Integrated towers**

Speaker: Romano Meijer (Nikhef)

Bologna\_taskforce\_...

17:05

**Optical layout updates, flexibility envelope and flexibility demands - 2L & triangle**

Speakers: Anna Green (Nikhef), Antonio Perreca

ET-0228A-25\_ETOD...

17:35

**Detector layout updates - 2L & triangle**

Speaker: Max Majoor

ET-0216A-25 - Prese...

17:55

**Requirements to civil infrastructure**

Speaker: Jonathan Bratanata

ET Symposium\_CE ...

26.05.2025

11:30 → 13:00

ISB / ETO Project Office

11:30

**A proposition of scheduling methodology for ET**

Speaker: Christian Olivetto

ET-Symposium-PO-...

12:00

**ET's Model-Based Systems Engineering exercise update: Towards a Unified Systems Architecture**

Speakers: Frederik Moers, Romano Meijer (Nikhef)

ETO\_Moers\_Meijer\_...

12:30

**Risk management critical role. Risk assessment status and risk management evolution**

Speaker: Ghada Mahmoud

Ghada Mahmoud\_P...

Ghada Mahmoud\_P...

Risk Management P...

14:45 → 16:45

Plenary

Welcome + ET Status

14:45

**ET-PP update**

Speaker: Mario Martinez

15:10

**ETO Design Task Force update**

Speaker: Fiodor Sorrentino

15:30

**ETO PO update: "The Project Office activities, working together..."**

Speaker: Alessandro Variola (Istituto Nazionale di Fisica Nucleare)

15:50

**Activities of the ETO Engineering Department**

Speaker: Patrick Werneke

16:10

**ETO Directors' update**

Speakers: Andreas Freise, Fernando Ferroni (INFN Roma 1)

29.05.2025 (now)





# The ETO Team – distributed and united



Photo from our latest ETO General Meeting in Rome, 27-28 November 2024

The next meeting will take place on 15-17 September 2025 on Elba



# ETO: Departments and Personnel

Note: the named people present the current ETO Management Team

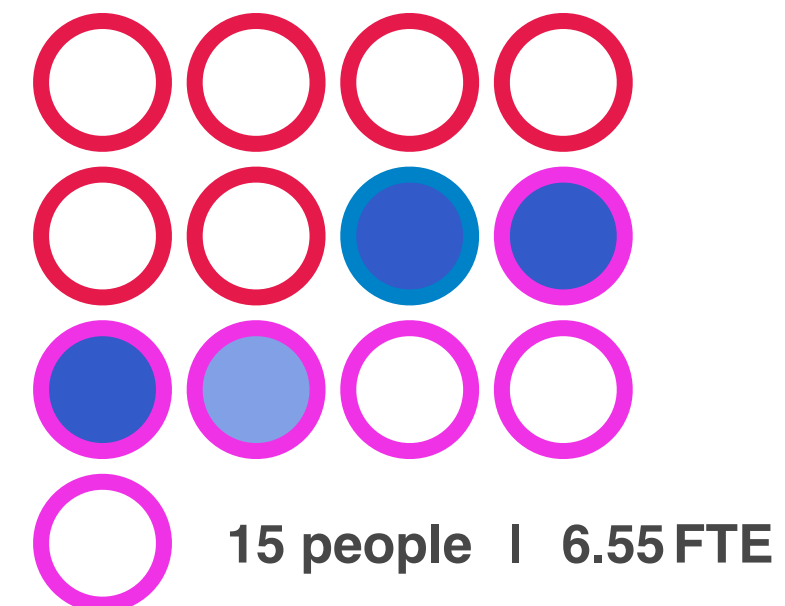
## ETO Directorate

- Fernando Ferroni – ETO Director
- Andreas Freise – ETO Director
- Daniela Trani – ETO Associate Director
- Roberto Saban – ETO Associate Director
- Mario Martinez – ET-PP Coordinator



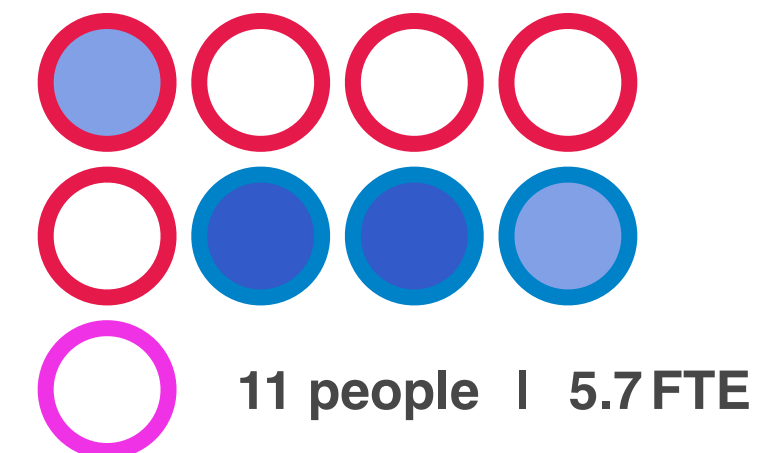
## Project Office

- Alessandro Variola – Head Of Department
- Fiodor Sorrentino – Technical Coordinator



## Engineering Department

- Patrick Werneke – Head Of Department
- Maria Marsella – Lead Civil Engineering



## Communication Office

- Martine Oudenhoven – Head Of Department



# ETO Personnel Overview

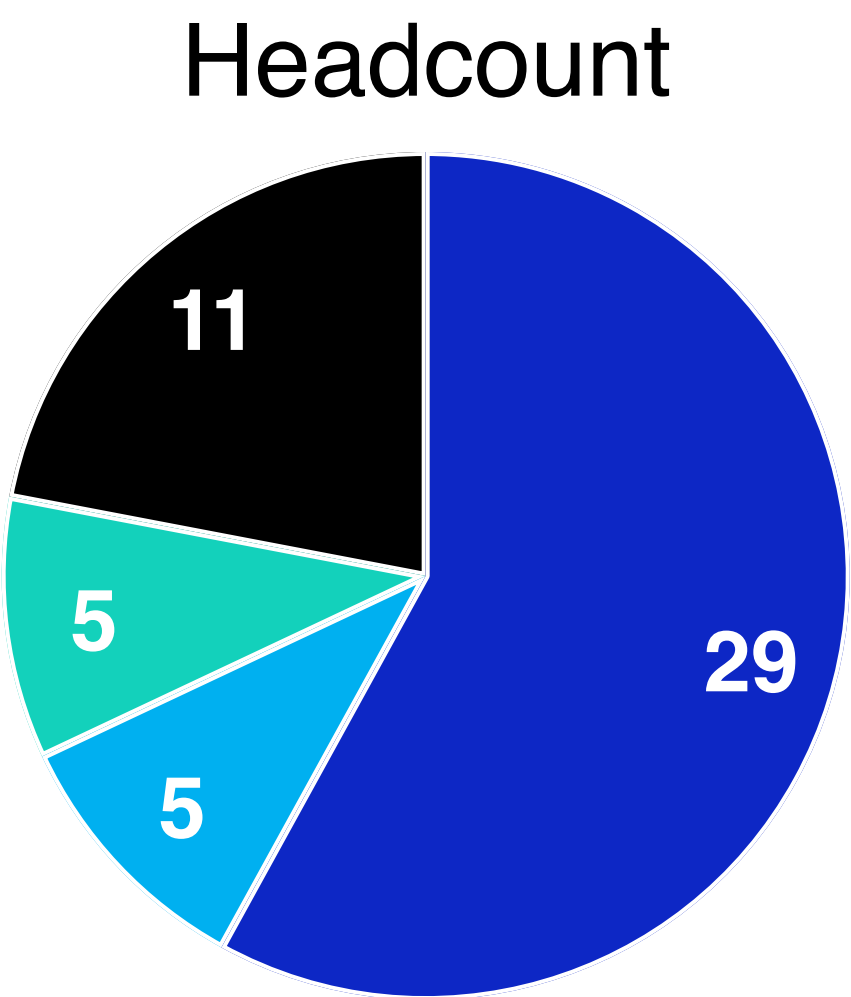
## Our current team includes:

- **39 People** within an ETO Departement of which:
  - 5 dedicated hires,
  - 5 people (partially) funded through ET-PP
- **11 People** working at CERN under the relevant collaboration agreements

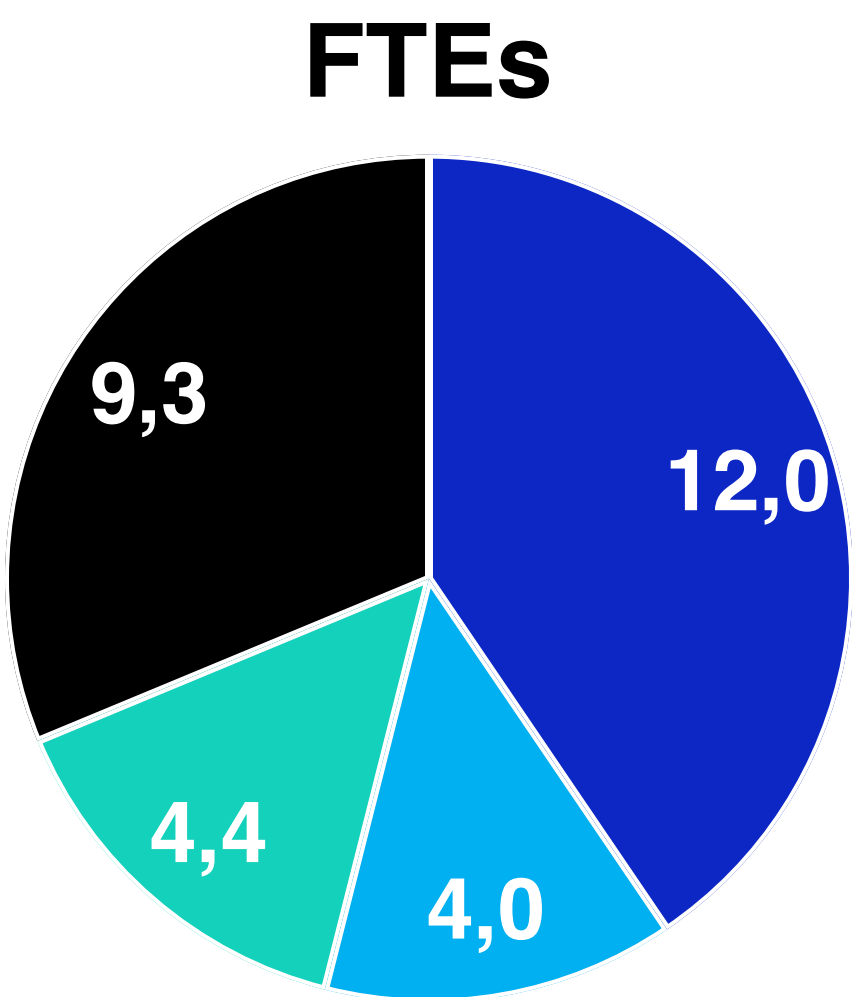


**Non-staff members are especially critical — they include**

- Personnel on temporary contracts (at institutions or CERN)
- Hires funded through temporary ET-PP grants



- Staff
- Dedicated Hires



- ET-PP Funded
- Employed Through CERN



# ETO Funders Group - status

- Memorandum of Understanding ('MoU') signed in December 2024, by **Nikhef, INFN, Belspo and FWO** established:
  - (i) a joint ETO Fund for the Einstein Telescope Project
  - (ii) installation of an **ETO Funders Group**
  - (iii) designation of Nikhef as administrator of the ETO Fund.
- In addition a Service Level Agreement between the ETO Funders Group members and the ETO Fund Administrator details the fund administration.
- Regular office hours between ETO and the Funders Group have been started.
- The first in-person meeting of the ETO Funders Group will be on 04.06.2025 in Maastricht.

# ETO Scope and Work Plan

or: what happened to the  
ET Roadmap?





# Widening the scope of ETO

- A letter from the Board of Governmental Representatives (BGR) on 18.12.2024 to the ET Coordinators includes these statements:
- "The BGR noted that the multiplicity of players involved in the project, notably ETO, ETC, and candidate sites, presented some coordination challenge [...]"
- "The BGR expressed the wish to address this situation and **strongly supports strengthening the role of ETO as project leader for Einstein Telescope** [...]"
- "[...] we thus invite you to prepare a **proposal of actions to be taken to enable ETO to play this leadership role**. This proposal could include, for instance, a revision of the mandate of ETO Directors, specific support expected from the BGR, and a review of the relationship with the ET Collaboration, the candidate sites and possibly other actors."
- ETO supports the ET Coordinators in the preparation of the requested proposal.

# From Roadmap to Work Plan

- February 2025: ETO delivered an ET Roadmap document to the ET Coordinators. It becomes clear that there are different expectations for the timeline from the Host Consortia.
- March 2025: The ET Coordinators propose that the BGR agrees on an appropriate timeframe for completing Phase 1. They offer that ETO can then develop a new Work Plan that can be adapted to such a timeframe.
- April and May 2025: Bilateral discussions between ministry delegates on this topic.
- May 2025: ETO and ET Coordinators submit to the BGR: a 'Provisional Summary of a Work Plan' and a proposal for a Positioning Mandate for ETO. Both documents are to inform the BGR about a possible work plan and its implications.
- June 2025: in-person BGR meeting in Maastricht



# Call for in-kind contributions

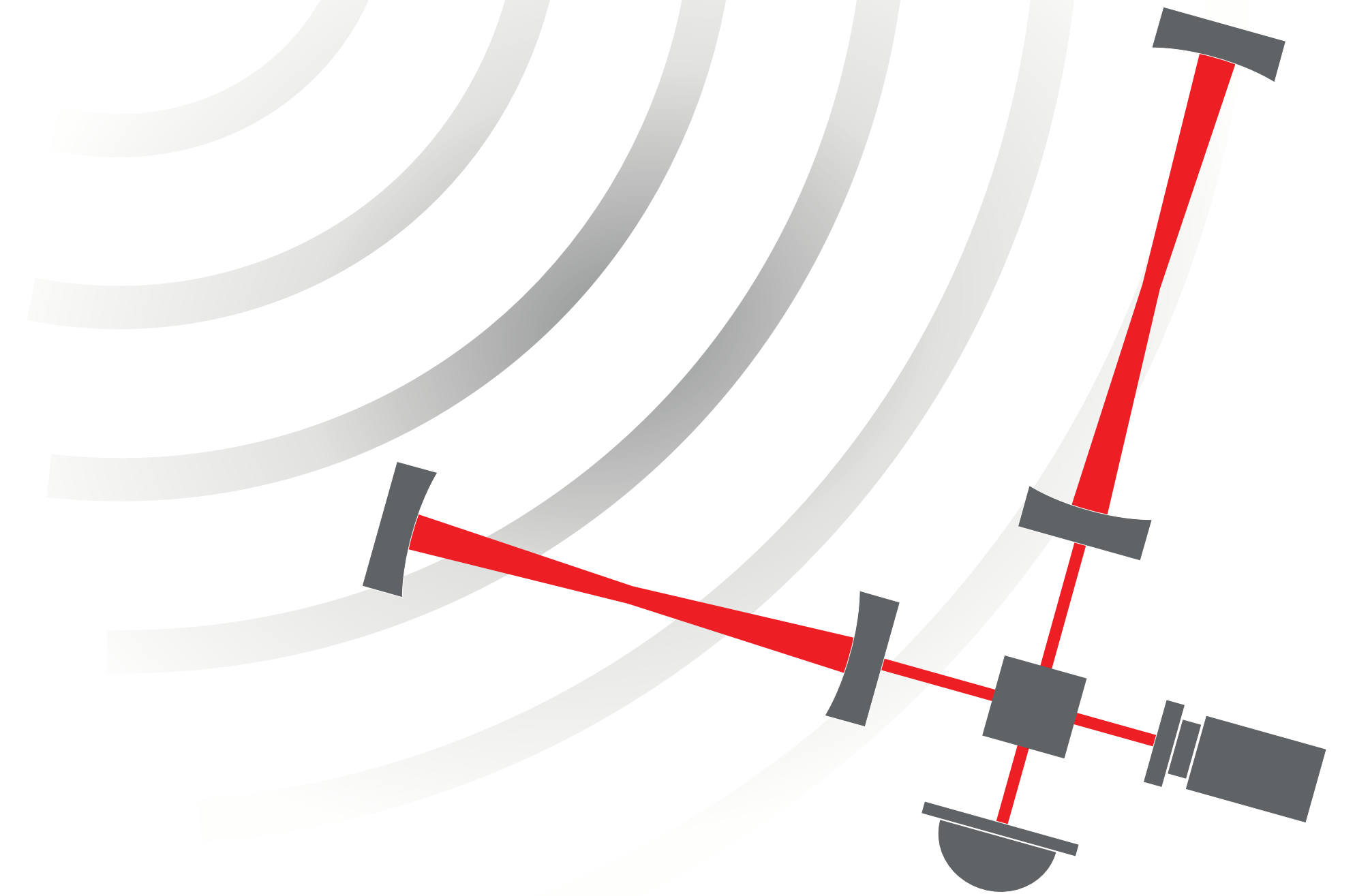
- As part of the overall future ETO work plan, we are identifying profiles for possible in-kind contributions to the ETO departments.
- In addition, we have identified **immediate urgent needs** and will soon issue a call for contributions.
- For example, urgent needs include several positions in the **ETO Project Office** (on configuration, quality management, resource coordination and risk coordination) as well as **legal advice** for the ETO Directorate and support for the **ETO Communication Department**.

# In-kind contribution coordination

- With ETO we have build a small integrated team, and we are paying CERN for specific technical deliverables.
- ET-PP provided as seed funding for ETO. ET-PP will end in summer 2026. We need to enable ETO to absorb many of the ET-PP funded activities.
- Many of these activities would benefit from, or even require, the expertise available in research institutions in the science community.
- We develop **in-kind schemes to integrate contributions from individual institutes into a centrally managed project.**



# Working with CERN



# Agreements enabling ETO's work with CERN

- Collaboration on Vacuum Systems (CERN, INFN and Nikhef, total project value: end date: July 2025.
- Civil Engineering Study (CERN, INFN, Nikhef, and IFAE), end date: December 2026.
- Extension of Collaboration on Vacuum Systems (CERN, INFN, Nikhef and IFAE), signed February 2025, end date: December 2027.
- Safety and Engineering Study (CERN, INFN and Nikhef), signed by CERN, recently signed, end date: March 2028.
- EDMS, implementing for ET a professional, project oriented, document lifecycle management tool.



# Goals of CERN contracts in short

- Civil Engineering : Consultancy and Review of the documents. Validation of the final choices. Guidance in preliminary TDR formulation [where most of the cost of the project is]
- Vacuum Pipe : Choice of pipes technology, TDR for the system [120 km of 1m diameter vacuum system [second item for cost ]
- Engineering Department : Definition of the technical infrastructure equipping the tunnels and caverns. [the missing piece in the design]

# ETO's current costs – the CERN Collaboration

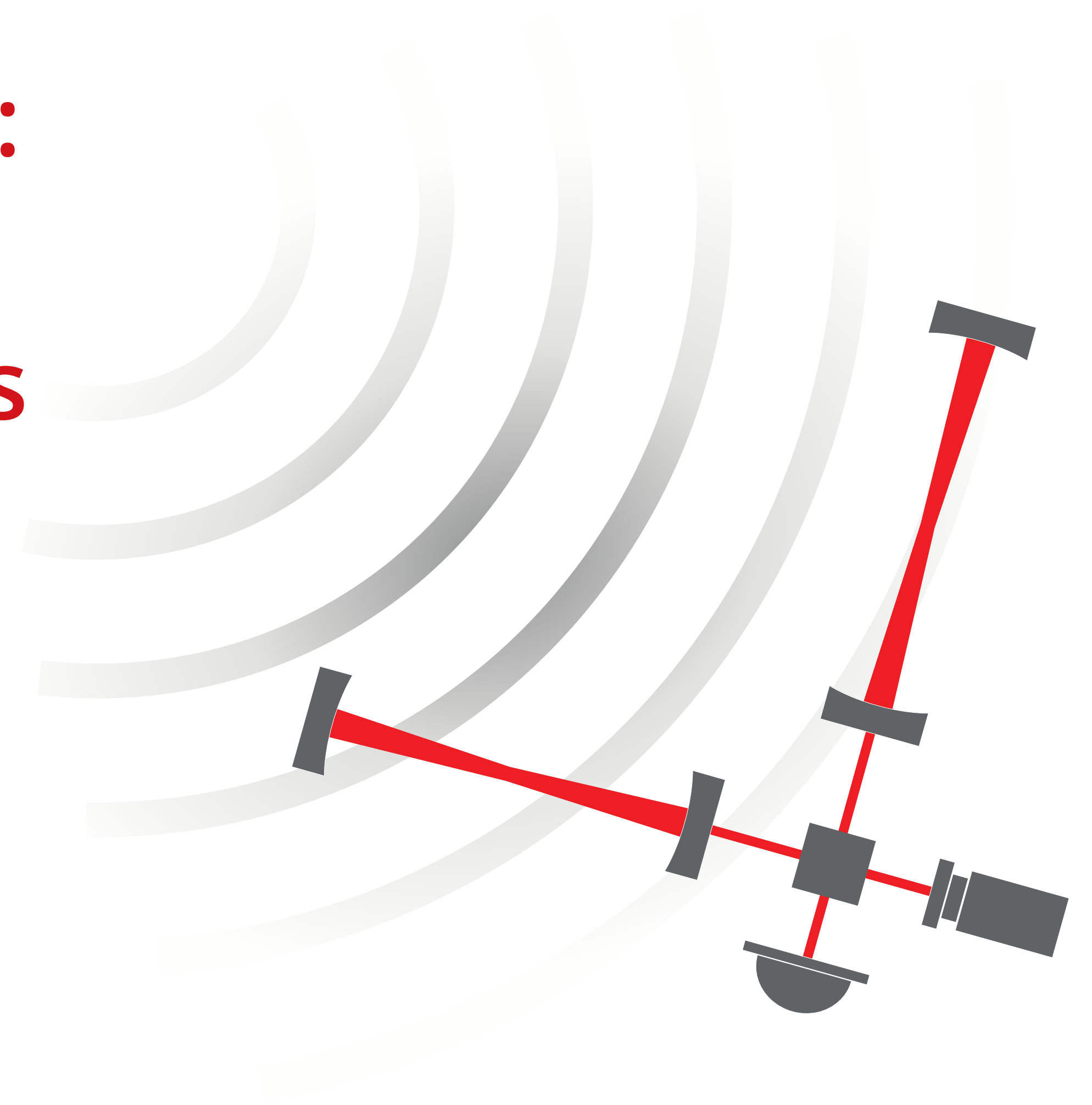
**Currently, only the costs defined in the CERN agreements (total value: €7.2M) are accounted for**

- ET partners cover around €6,4M
- CERN provides the remaining €0,8M as in-kind contributions, as specified in the agreements

Agreement	Start Date	End Date	Financed by ETO Fund?	Total Value [k€]	ET Share [k€]
Collaboration On Vacuum Systems	01/08/2022	31/07/2025	No	1.749	1.189
Civil Engineering Study	01/10/2023	31/12/2026	No	353	353
Commitments Before ETO Fund Setup				2.102	1.542
Extension of Vacuum Collaboration	01/03/2025	20/12/2027	Yes	2.040	1.759
Safety and Engineering Study	01/04/2025	31/03/2028	Yes	3.055	3.055
Commitments Since ETO Fund Setup				5.095	4.814
Grant Total				7.196	6.357



**HORIZON-INFRA-2025-01-DEV-02:**  
**New call for early phase**  
**implementation of ESFRI Projects**  
**included in Roadmap in 2021**



# Call overview

- **Call launch date:** 6 May 2025
- **Submission deadline:** 18 September 2025
- **Indicative total budget:** M€16,5
- **Expected EU contribution:** M€1 to M€1,5 - *but other amounts possible*
- **Type of Action:** Coordination and support Actions
- **Funding Model:** 100% Lump sum funding

# Call scope and focus

- **Scope:** This call targets the 11 ESFRI Projects that entered the ESFRI Roadmap in 2021, including the Einstein Telescope
- **Focus:** Applicants must identify and address **key bottlenecks** in the transition from preparatory to implementation phase. Funded activities may include (*list is not exhaustive*):
  - ◉Governance and legal entity establishment
  - ◉Membership enlargement and partner engagement
  - ◉Addressing staff and procurement related issues
  - ◉Securing Funding and related sustainability strategies
  - ◉Consolidation of the international dimension
  - ◉Development of ICT and FAIR-compliant data management solutions.



# Proposed process for ET bid (1/2)

- ET Coordinators propose to the BGR the following process for bid preparation and submission to be managed by ETO:
  - [Part 1 - between 11 June 2025 and 9 July 2025](#)
    1. ETO identifies bottlenecks in the ET ESFRI project that align with the call focus
    2. ET Coordinators establish an ETO-led ad-hoc working group (WG) [*All ESFRI and BGR Countries can nominate a representative for the WG*]
    3. ETO-led WG proposes a priority list to ET Coordinators reflected in the
      - bid-outline - incl. all work packages (WPs), deliverables and milestones
      - consortium composition (incl. proposed entity responsible for administrative coordination)
      - WP-leadership/contributions based on expertise in line with relevant deliverables.
    4. ET Coordinators - in consultation with BGR - approve the proposal and provide possible feedback for fine tuning and completing outline and consortium composition.

# Proposed process for ET bid (2/2)

- [Part 2 - between 9 July and 5 August 2025](#)
  1. ETO-led WG drafts the first concept, incl. a deliverable-based budget
  2. ETO submits the draft to ET Coordinators - who share it with BGR - by 5 August 2025
  3. ET Coordinators provide feedback to ETO by 13 August 2025 - incl. any relevant input from BGR
  4. ETO-led WG produces a pre-final version by 4 September 2025
  5. ET Coordinators deliver feedback - incl. from BGR - by 11 September 2025
  6. ETO consolidates all feedback and leads finalisation and submission of bid by 17 September 2025 (*to mitigate risks of possible IT issues on 18 September*).

*ETO will set up a detailed process planning and manage all its steps.*

*Close involvement of and contribution by all relevant consortium partners and their representatives will be crucial to ensure that a strong ET INFRA DEV Early Implementation bid is submitted.*

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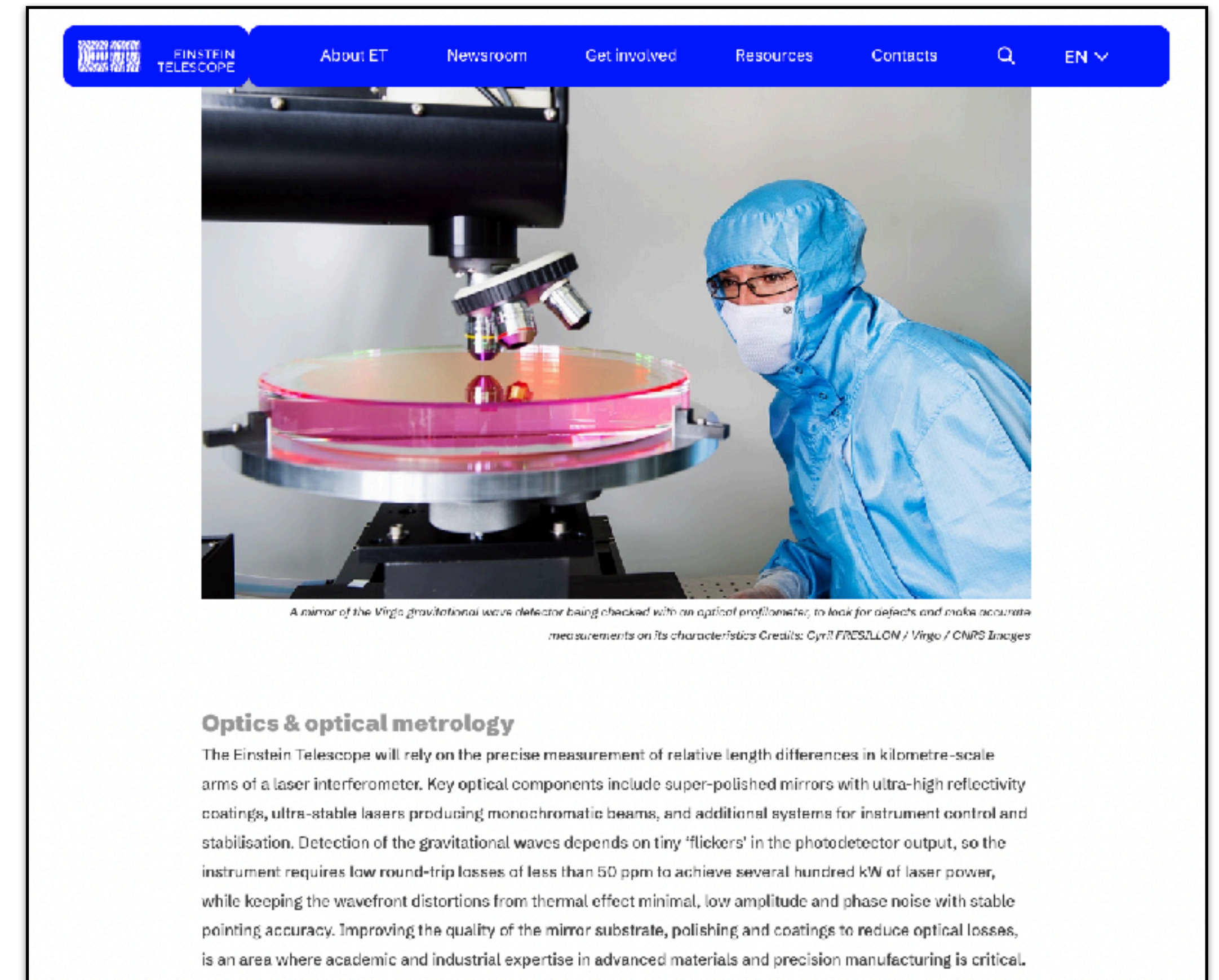
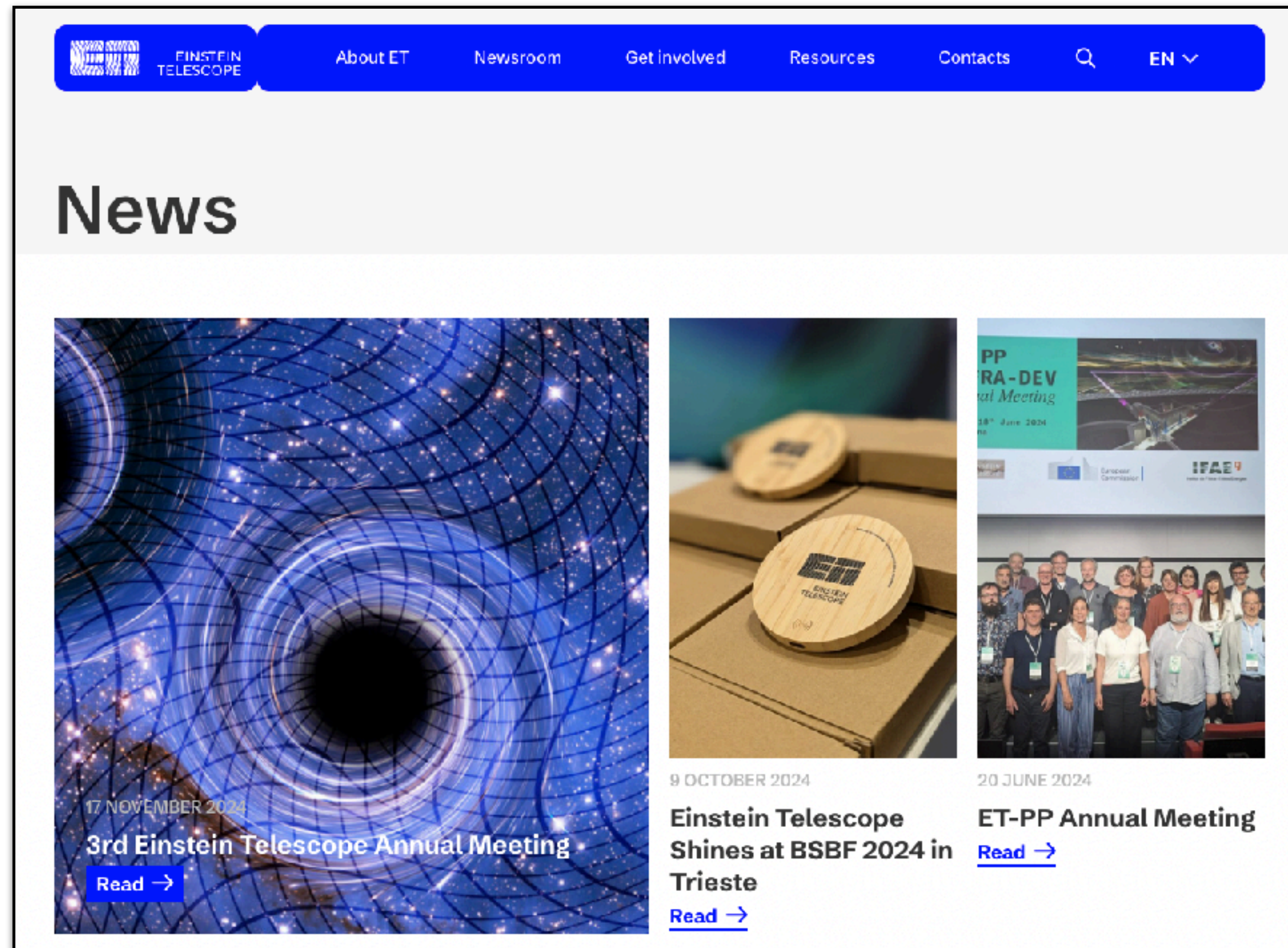
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# Communication: New website



<https://einsteintelelescope.eu/>

A new central and professional website for ET has been developed. The site has soft launched recently.



# Conclusion

- ETO is using novel and innovative concept of providing strategic central project management early.
- We use best practises from CERN and other large projects. We also heard very clearly about what not to do.
- We have been successful in building a great core team with a clear goal.
- Now ETO's role and scope will expand according to the project needs.
- **2025 will be a critical year for ET: all partners must agree on a common plan.**
- “Without a strong ETO there will be no ET.”

... end.