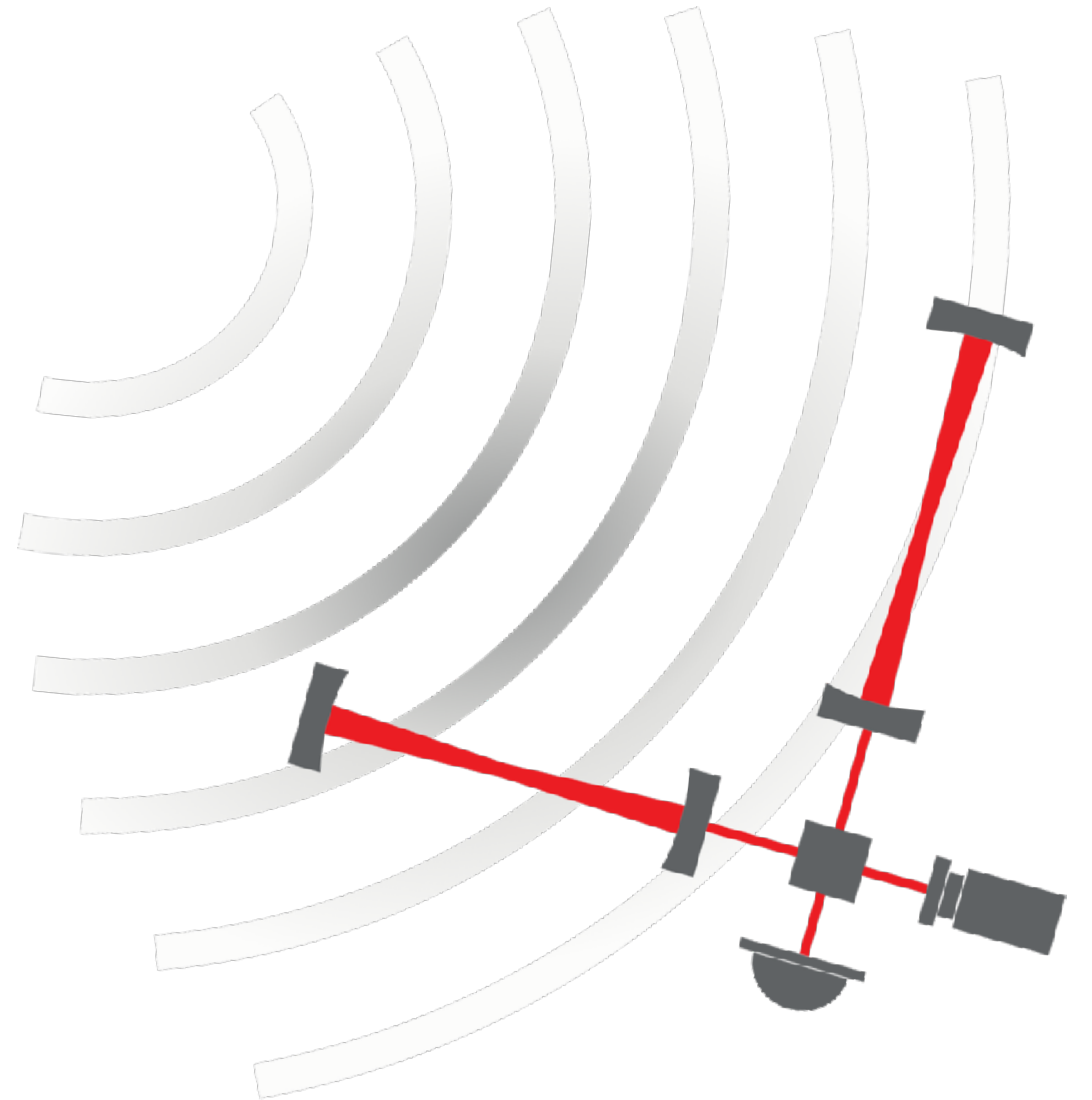


# Updates from ETO

Fernando Ferroni, Andreas Freise  
ET-PP, Barcelona, 05.05.2026



# Overview

- ◉ ETO status and structure
- ◉ Geometry Comparison Report
- ◉ Work with CERN
- ◉ Detector design
- ◉ ETO Funders Group
- ◉ INFRA DEV 2025 ET-COMPASS
- ◉ ETO - ESA Third Party Agreement (TPA)
- ◉ ETO Communication for the ET project

# Reminder

The Einstein Telescope Organisation (ETO) is the professional organisation that works on the structure, coordination and enabling systems to make the Einstein Telescope feasible, fundable and buildable. ETO acts as a central hub, coordinating between different entities including the scientific Einstein Telescope Collaboration and the candidate host consortia.

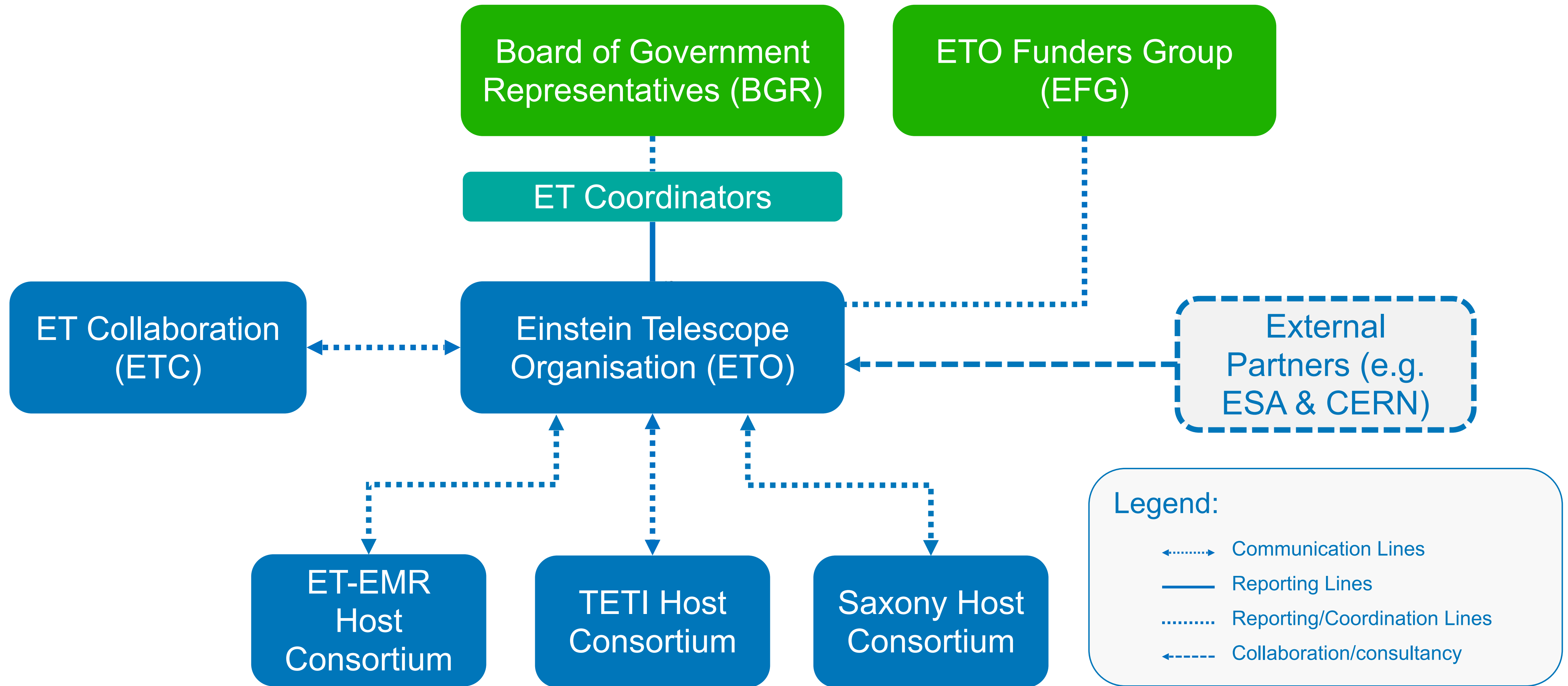
ETO is an international inter-institutional initiative, with a funders group consisting of Nikhef, INFN, FWO, BELSPO and IFAE. Additional and in-kind personnel contributions come from Italy, the Netherlands, Belgium, France, Germany, Poland and Spain. The countries represented in the Einstein Telescope's Board of Governmental Representatives (BGR) have demonstrated strong commitment to ETO.

# Strengthened Mandate for ETO

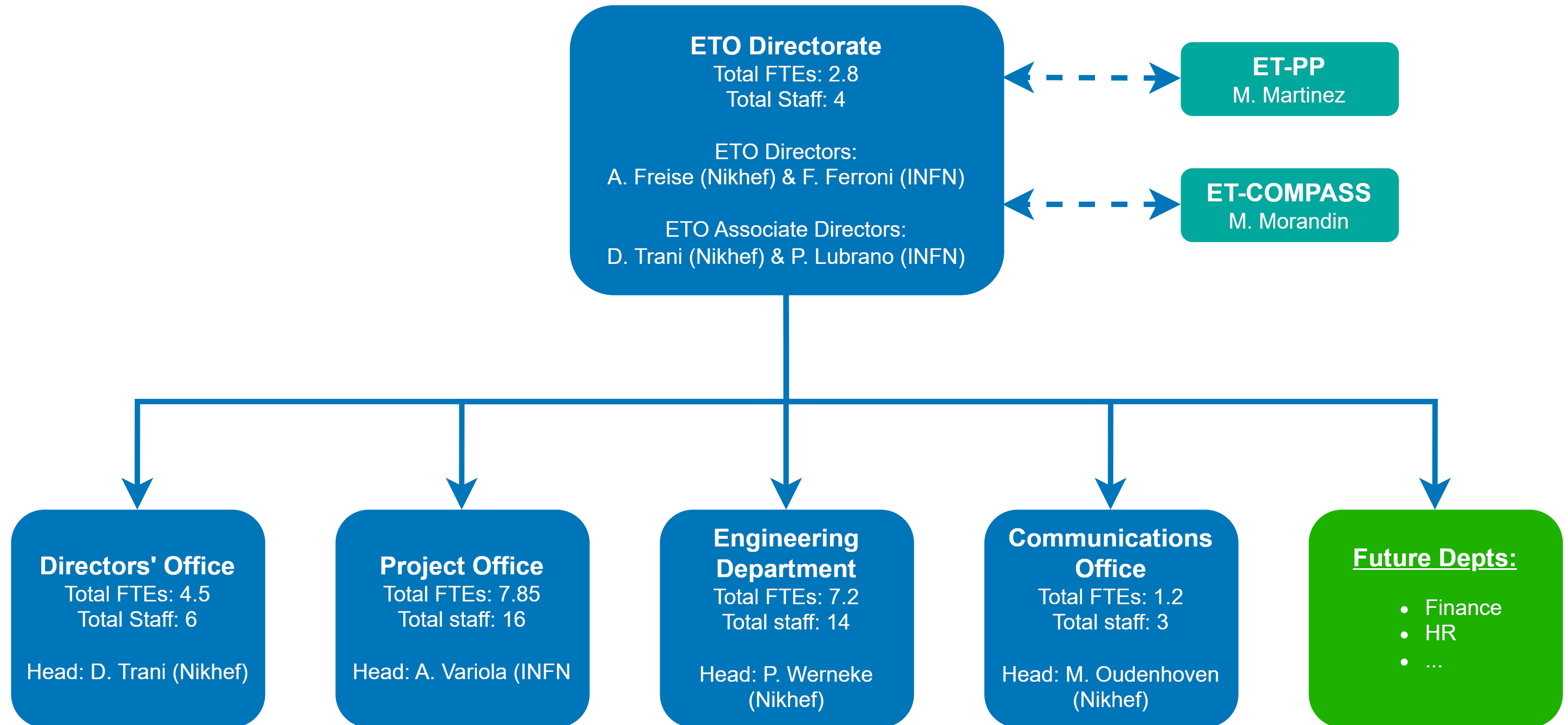
The January 2026 ETO mandate strengthens ETO's central role and further clarified several core responsibilities, including:

- *“To coordinate the execution and delivery of specific work elements required for decision-making by the BGR and other governance bodies, with particular emphasis to those elements which may be relevant for the decision on geometry and site(s) and can be delivered within the phase 1 timeframe.”*
- *“To set up the project organisation necessary to successfully design, plan, structure and manage the ET project.”*
- *“Managing strategic communication activities for the ET project in alignment with the ET Coordinators, the BGR and the participating Funding Agencies, and in close collaboration with the ET Collaboration.”*
- *“Promoting ET's visibility and relevance within the broader European Research Area, particularly in relation to developments in education, research and innovation policy developments.”*

# ETO's role in the ET project landscape



# ETO structure



# Some new faces in ETO (1/2)

## Directors' Office

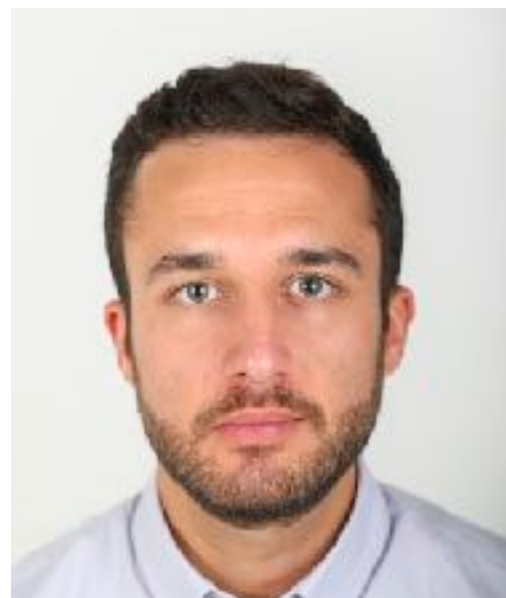


**Name:** Chiara Arina  
**Affiliation:** UC Louvain; also active in ET-PP WP3  
**Role:** IKPC Coordinator  
**Start Date:** 2/04/2026  
**Effort (FTE):** 40%

## Project Office



**Name:** Jurgen Van Gorp  
**Affiliation:** FWO  
**Role:** Project Manager  
**Start Date:** 1/01/2026  
**Effort (FTE):** 80%



**Name:** Gabriele Capoccia  
**Affiliation:** INFN  
**Role:** Configuration Manager  
**Start Date:** 5/11/2025  
**Effort (FTE):** 30%



**Name:** Massimiliano Bonesso  
**Affiliation:** INFN  
**Role:** Cost Manager  
**Start Date:** 5/11/2025  
**Effort (FTE):** 30%

# Some new faces in ETO (2/2)

## Communications Office



**Name:** Yulia Hoika

**Affiliation:** Astrocent; also active in ET-PP WP10

**Role:** Communication coordinator

**Start Date:** 5/01/2025

**Effort (FTE):** 50%

## Engineering Department



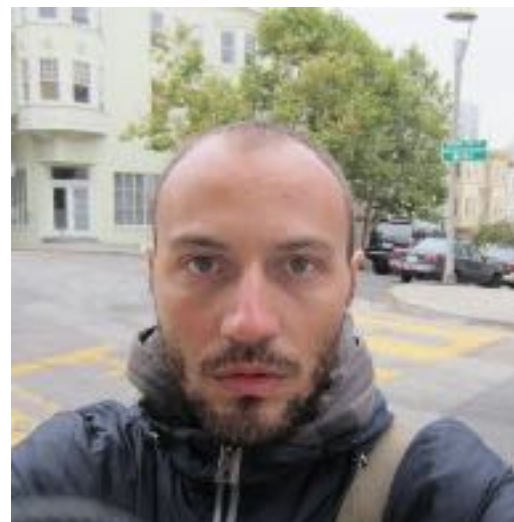
**Name:** Lucas Hermida Peña

**Affiliation:** Nikhef

**Role:** Mechanical Engineer

**Start Date:** 1/11/2025

**Effort (FTE):** 100%



**Name:** Francesco Bianchi

**Affiliation:** INFN

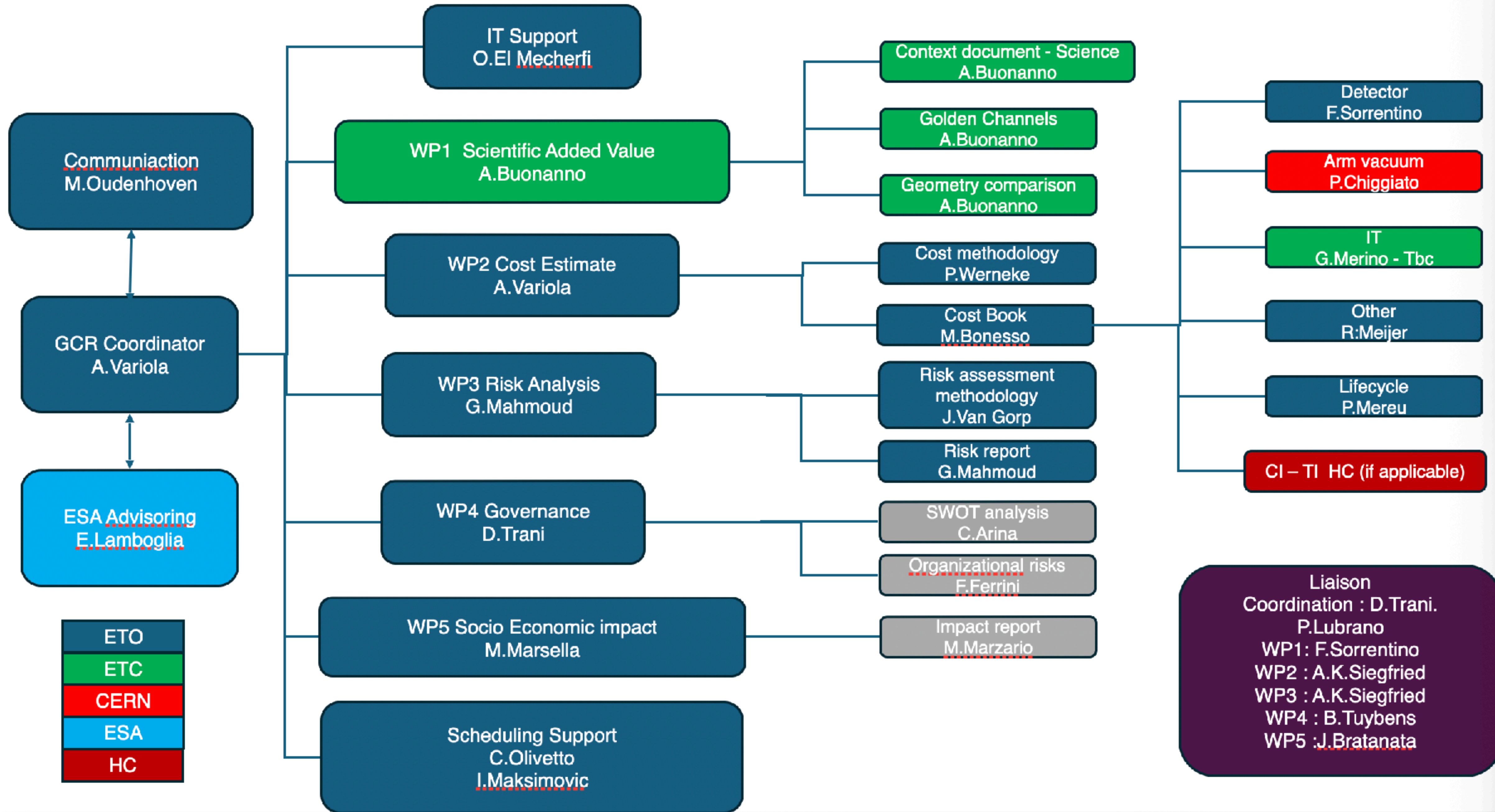
**Role:** Mechanical Engineer

**Start Date:** 5/11/2025

**Effort (FTE):** 30%

# GCR - Overview

- The BGR has tasked ETO with delivering a Geometry Comparison Report (GCR).
- ETO has organised the Geometry Comparison Report activity as a project, and work package leaders have been assigned.
- The full list of tasks, deliverables and milestones are organised in a detailed and complete Work Breakdown Structure.
- Engagement with stakeholders, especially the ET Collaboration and the ET Host Consortia has been a key aspect of the planning from the beginning.



# Dedicated, new support to the GCR work

- BGR members from Belgium reached out to ETO, and in dialogue it has been possible to increase the contribution with one expert on risk.
- The BGR member from Germany (BMFTR) contacted ETO to identify together on short notice addition experts to join the GCR project. Three people are now in contact with the GCR project and WP leaders.
- Croatia (University of Rijeka) has also contacted us to discuss expert contributions to the GCR regarding cost, risk and governance.
- **We are grateful for this positive and pro-active engagement.**
- The core team is now assembled but we welcome additional support by **domain experts** to increase the resilience of the team.

# ETO-CERN collaboration

# Three pillars of CERN-ETO Collaboration

In the frame provided by the Collaboration Agreement KN5637/TE/Einstein Telescope the following activities are undergoing and progress is reported:

- Vacuum Pipe
- Engineering & Safety
- Civil Engineering

# Vacuum beampipe: pilot sector (36 meter)

1. Leak testing complete
2. Ongoing: 150 °C bake-out, ultimate pressure and gas analysis - commissioning sequence simulating one sector as per pre-TDR
3. Measuring H<sub>2</sub>, CH<sub>4</sub>, CO, CO<sub>2</sub> outgassing rates



# Host Consortia: developments of the Engineering & Safety

- Bi-weekly online meetings between ETO and Host Consortia
- Organize in-person meetings: 19 & 20 January and 9 April @CERN, 2 & 3 March @EGO to come to a final list the requirements
- We aligned with the help of CERN to a joint and coordinated approach on safety



# Developments of the Technical Infrastructure and Safety

- 10 graduates have started their work for ET
- Visit to EGO / Virgo March 16 & 17

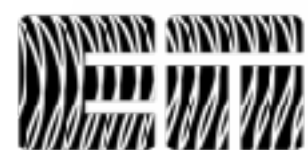
| #  | Dep. | Gr  | Duration<br>[months] | Profile / Description       | Contract Start |
|----|------|-----|----------------------|-----------------------------|----------------|
| 1  | EN   | AA  | 30                   | Electrical Engineer         | 01.12.2025     |
| 2  | EN   | ACE | 30                   | Configuration / Integration | 01.10.2025     |
| 3  | EN   | ACE | 30                   | Scheduling / Management     | 01.11.2025     |
| 4  | EN   | CV  | 30                   | HVAC Engineer               | 01.10.2025     |
| 5  | EN   | CV  | 30                   | Cooling Engineer            | 01.11.2025     |
| 6  | EN   | EL  | 25                   | Electrical Engineer         | 01.01.2026     |
| 7  | EN   | IM  | 30                   | Software Engineer           | 01.10.2025     |
| 8  | HSE  | OHS | 30                   | Fire Safety Engineer        | 01.10.2025     |
| 9  | HSE  | OHS | 30                   | Safety Engineer             | 01.10.2025     |
| 10 | HSE  | OHS | 30                   | Mechanical Engineer         | 01.10.2025     |



Visit to Virgo March 17, 2026

# ETO Project Office

## Updates on Project Management



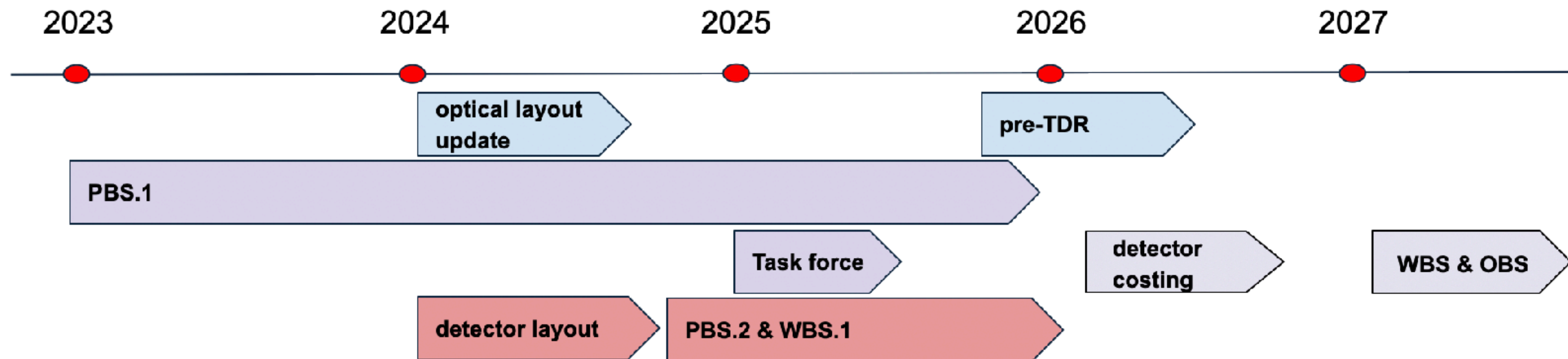
# Detector Design

- The **ETO Design Task Force** combined experts from ETO, the ET Collaboration, CERN and the Host Consortia to deliver the ET baseline design in 2025.
- Based on the ET Baseline design the ET Collaboration is now completing the so-called pre-TDR document of the detector, a design document that is a deliverable for the ET-PP project, expected delivery is before summer 2026.
- Once the pre-TDR has been delivered, ETO will initiate a new process for continuing the design work according to the new ETO mandate, which asks ETO to:
  - set up a joint management team with the ET Collaboration for the detector design report
  - to coordinate the development of the detector baseline configuration based on system engineering
  - prepare a Product Breakdown Structure (PBS) and a template for the detector design report, the PBS will be the backbone of configuration and baseline processes

# Detector Design and Cost

The ETO project office initiated the creation of a first PBS in 2023 and managed together with the ETC Instrumental Science Board the substantial amount of work to complete a first PBS in 2025.

In parallel the ETO Project Office prepared the evolution of the PBS towards integrated systems following systems engineering processes during 2025. We are thus ready to initiate the next phase of the process.



# ETO Directorate News

# IFAE accession to the ETO Funders Group and ETO Fund

- On 19 December 2025, IFAE acceded to the MoU for the ETO Fund and the ETO Funders Group, and to the associated Service Level Agreement.
- The MoU (signed in December 2024 by Nikhef, INFN, Belspo, and FWO) established:
  - A joint ETO Fund for the Einstein Telescope Project
  - An ETO Funders Group (EFG)
  - Nikhef as administrator of the Fund
- The Service Level Agreement sets out operational and administrative arrangements with Nikhef as Administrator of the ETO Fund.

## Representation & Financial Contribution

- IFAE will be represented by its Director Eugenio Coccia in the ETO Funders Group.
- IFAE's financial contribution to the ETO Fund amounts to k€450 (already transferred).

# ET-COMPASS selected for funding!

- Mauro Morandin (INFN) is the Project Coordinator; Federico Ferrini (INFN) is the Deputy Project Coordinator
- Daniela Trani/Pasquale Lubrano (ETO Directorate) and Alessandro Variola (Head of ETO PO) in the ET-COMPASS Management Team
- ETO Directors and Heads of Depts are ex-officio members of the ET-COMPASS Management Team



# ET-COMPASS - some facts and figures

- Project duration: 2 years
- Total funding: approx. M€1,5
- Target start date: Fall 2026 (most likely January 2027) to minimise overlap w/ET-PP (to be negotiated with European Commission)
- Human Resources: approx. 150 PM (i.e. 12 FTEs)
- All staff funded via ET-COMPASS will be embedded in ETO organisational structure
- All ET-COMPASS activities and staff will directly contribute to the ETO portfolio as outlined in the mandate, particularly for development of solutions and tools for:
  - Project Management
  - Organisational structures of ETO
  - In-kind personnel contribution framework
  - Rules and procedure for project costing
  - Membership enlargement and partnership engagement for ETO
  - Positioning of ET project at European and global level
  - Communication and dissemination for widening engagement.

# Collaboration with the European Space Agency (ESA)

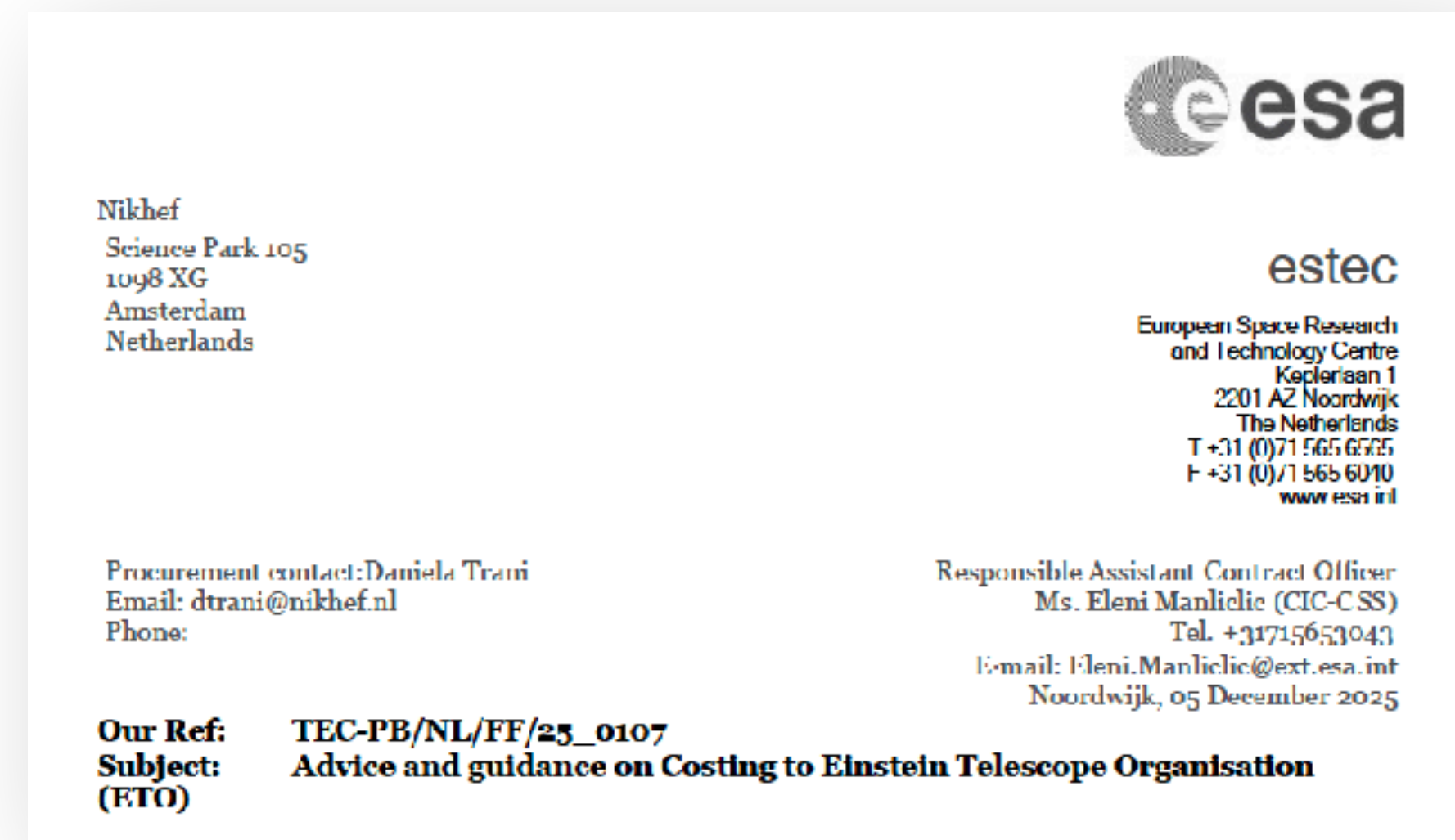
ETO has established a collaboration with the European Space Agency (ESA), now formalised through a Third Party Agreement (TPA), undersigned by Nikhef as Administrator of the ETO Fund.

ETO contacts: Daniela Trani (ETO Directorate) and Alessandro Variola (Head of ETO Project Office)

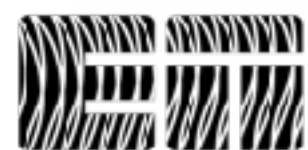
## Scope of Collaboration

- Directly supports ETO costing activity, crucial element also in the the GCR work
- Training and support for new ETO recruits, jointly hired with partner institutes

ESA Senior Engineer to serve as Strategic and Technical Advisor at 0.2 FTE to support ETO.



# ETO Communication for the ET Project



# ETO Newsletter


- Two editions sent (autumn 2025 and spring 2026)
- Currently 225 recipients (internal ETO as well as external)
- Offers updates on key developments and insights into the work happening behind the scenes
- Began as an internal publication, anyone interested in following progress welcome to join
- Many positive responses



”

*I am very positive about our progress. Despite the small team and the large responsibility, we were able to build a stable and resilient core of an organisation, which we are now growing with new people seconded to ETO from our partners.*

Andreas Freise



**A CHAT WITH DIRECTORS:**  
Andreas Freise, Fernando Ferroni

[Read more](#)



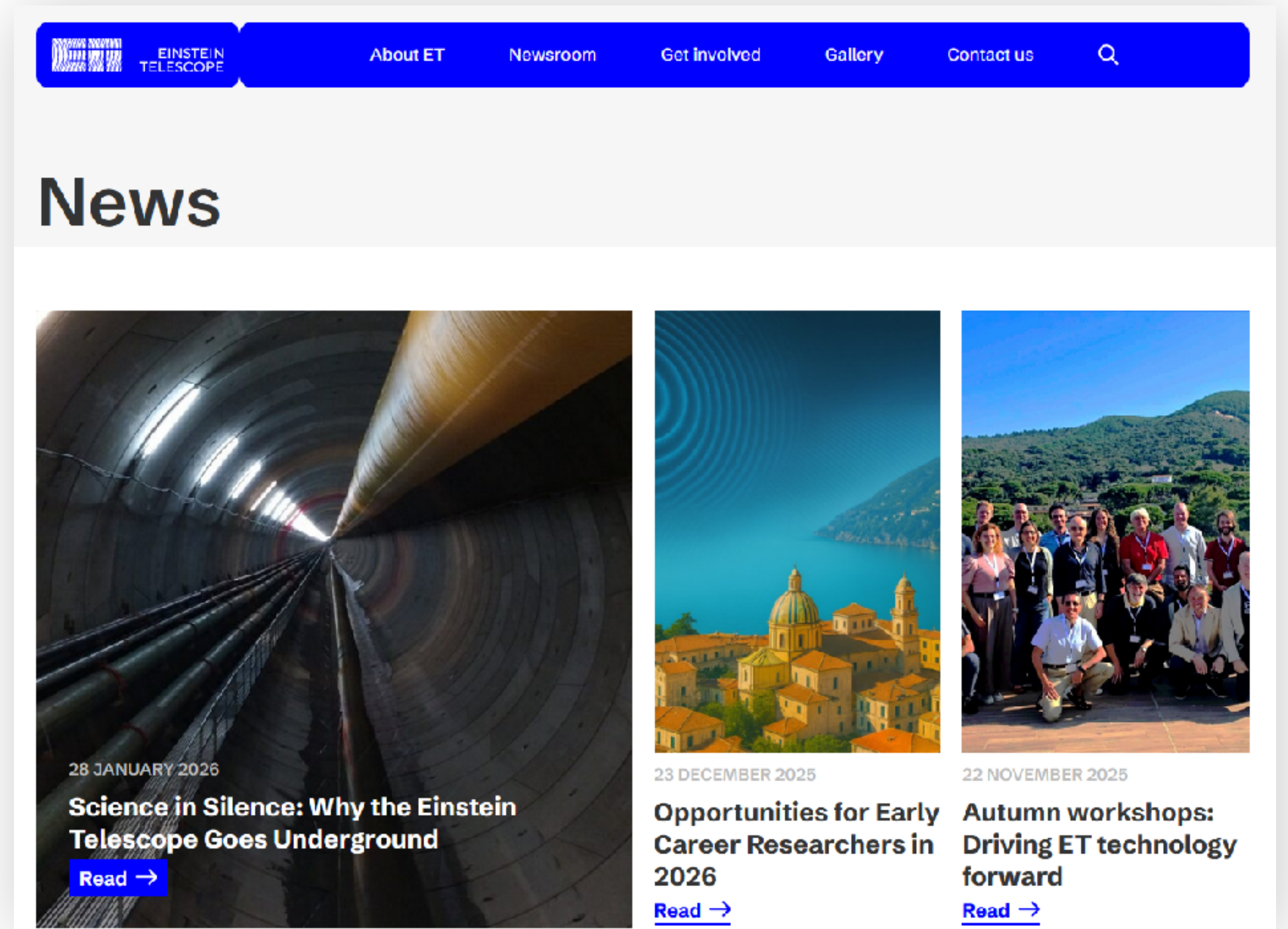
## ETO Breaking News

The Einstein Telescope Organisation (ETO) continues building the structure, coordination, and enabling systems needed to make the Einstein Telescope feasible, fundable, and buildable. Key developments in last few months:

- A lot of ETO's work is focused on the **Geometry Comparison Report**, which will support informed decision-making on the triangular vs. double L-shaped configurations
- A **strengthened mandate** reinforces ETO's role in managing activities and delivering key outputs
- A new collaboration with the **European Space Agency (ESA)** provides

# News and stories on the website

- Focusing on stories that matter and provide neutral transnational interpretation and context, examples:
  - Science in Silence, Why the Einstein Telescope Goes Underground
  - Lusatia officially third candidate location for the Einstein Telescope
  - Towards a report on the comparison of geometries for the Einstein Telescope



# Thank you!

- The ET-PP project is coming to end end later this year.
- Thank you for your many contributions to the Preparation Phase of ET.
- In many ways ET-PP was the stepping stone to ETO, with key ET-PP tasks for creating a new professional management structure, and others preparing the ground for new formal structures.
- Many of you have experience and expertise that we need within ETO in the future. We hope to be able to welcome you back in an ETO coordinated activity soon!

...end