

ET organisation

Michele Punturo, Harald Lück

On behalf of the ET Steering Committee

The Past and Present: the ET Steering Committee

- ET has a long history and thanks to the Conceptual Design and the following activities we had ready a core team that worked in the last 2 years to prepare the ESFRI proposal and to draft the future organisation of ET
  - The ET Steering Committee (ET-SC)
- The ET-SC is an informal structure, with variable composition, that will bring ET toward its official collaboration phase

- Michele Punturo (co-chair) (INFN)
- Harald Lueck (co-chair) (MPG/LUH)
- Matteo Barsuglia (CNRS)
- Marica Branchesi (GSSI/INFN)
- Enzo Brocato (INAF)
- Giacomo Bruno (Université catholique de Louvain)
- Tomasz Bulik (Astronomical Observatory University of Warsaw)
- Massimo Carpinelli (Università di Sassari)
- Nelson Christensen (CNRS)
- Karsten Danzmann (MPG/LUH)
- Viviana Fafone (INFN)
- Raffaele Flaminio (CNRS)
- Andreas Freise (Birmingham University)
- Gianluca Gemme (INFN)
- Aniello Grado (INFN/INAF)
- Stefan Hild (Maastricht University)
- Peter Levai (WIGNER Institute)
- Frank Linde (Nikhef)
- Michele Maggiore (Université de Genève)
- Mario Martinez (IFAE)
- Andrea Paoli (EGO)
- Fulvio Ricci (INFN)
- Sheila Rowan (Glasgow University)
- Achim Stahl (RWTH Aachen University)
- Jo van den Brand (Nikhef)
- Nick van remortel (Universiteit Antwerpen)
- Stavros Katsanevas (EGO)
- David Reitze/David Shoemaker (LIGO-Observer)

ET EINSTEIN TELESCOPE

The change of phase: the ESFRI proposal

- In the ESFRI proposal the overall organisation of the ET project has been drafted by the (few) main agencies that initiated the (ESFRI) ET consortium
  - Considering the strong involvement of governments in the future ET governance (ERIC?)
  - Considering the expected cost of ET
  - Considering the experience of other big-science projects
  - It has been requested a clear distinction between “the project” and “the collaboration”

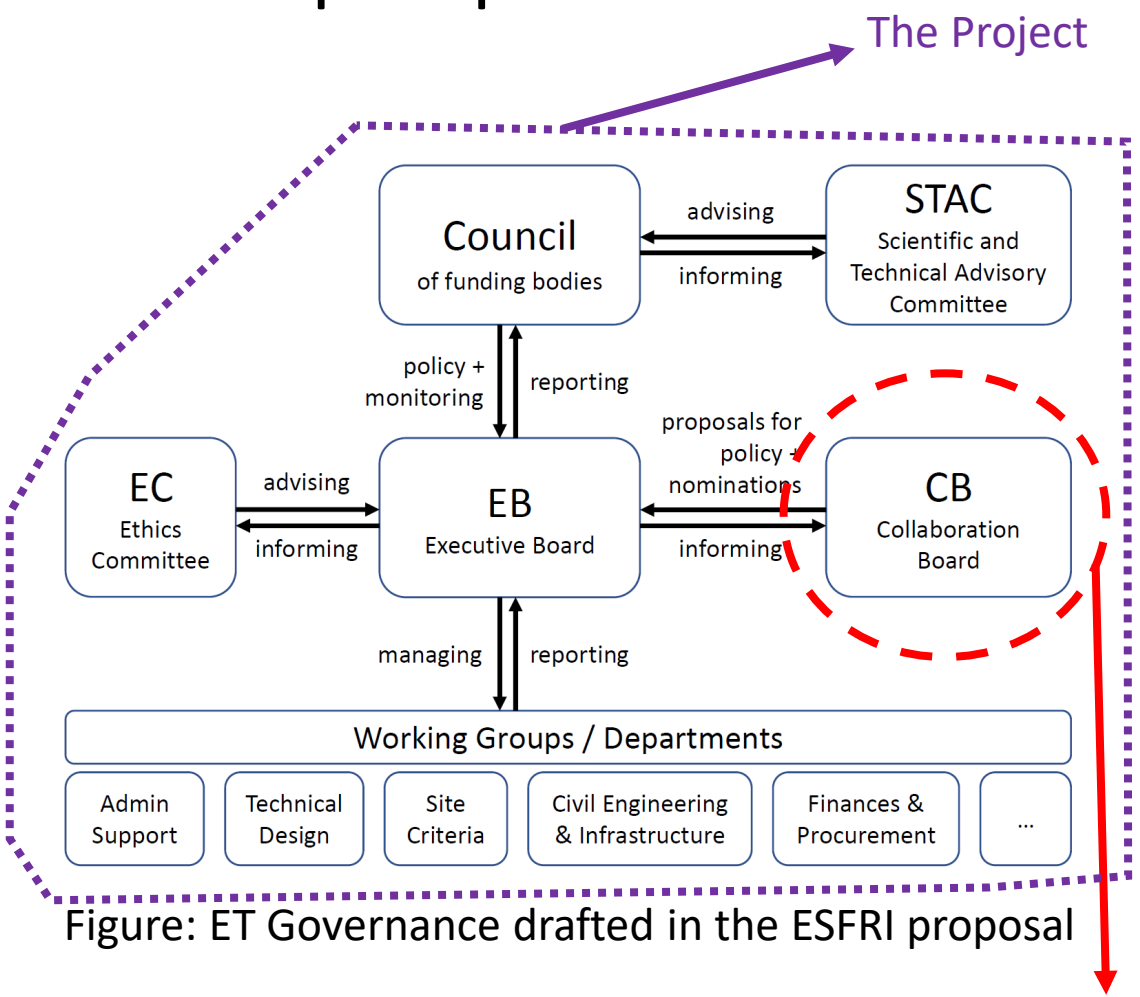
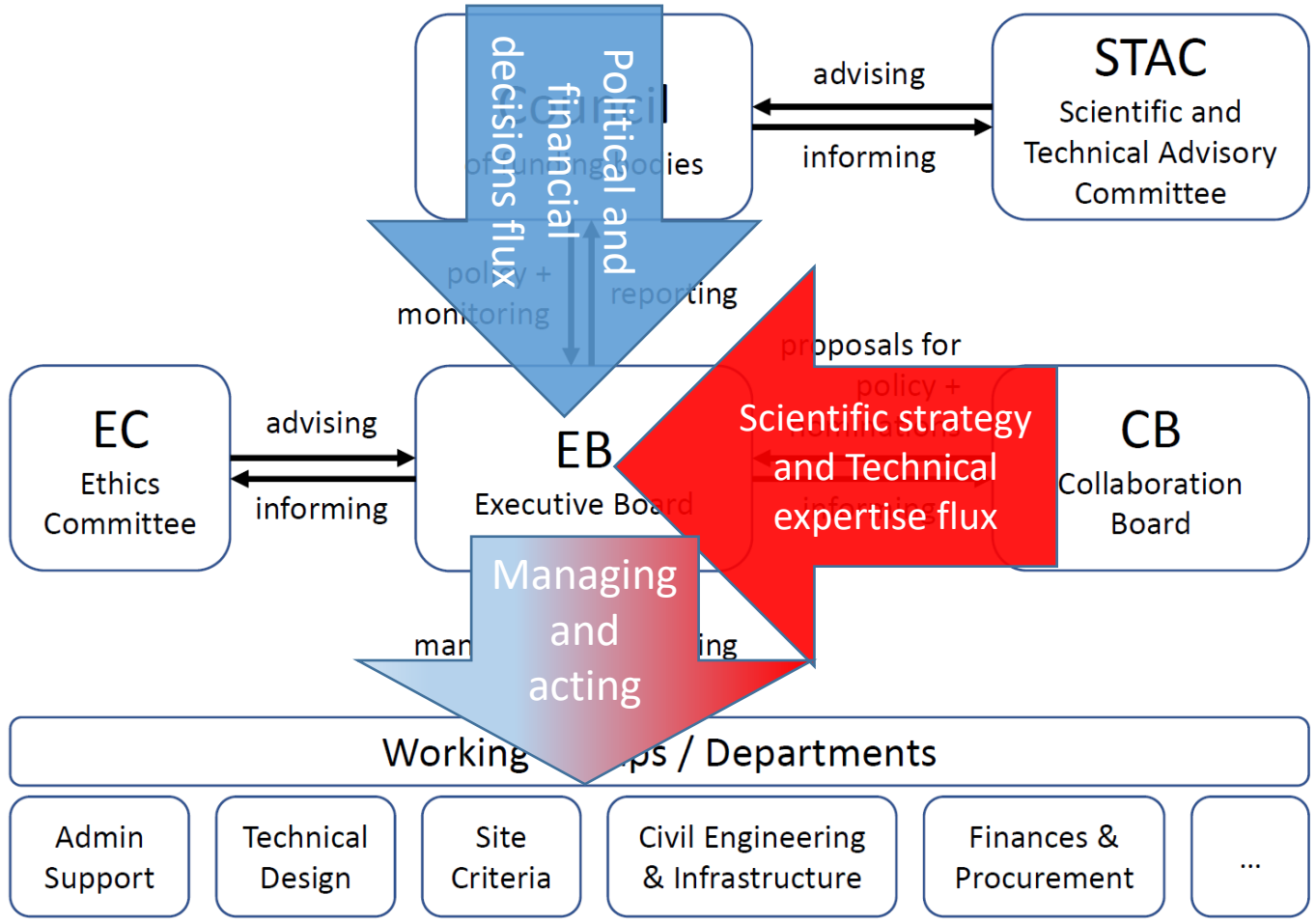


Figure: ET Governance drafted in the ESFRI proposal

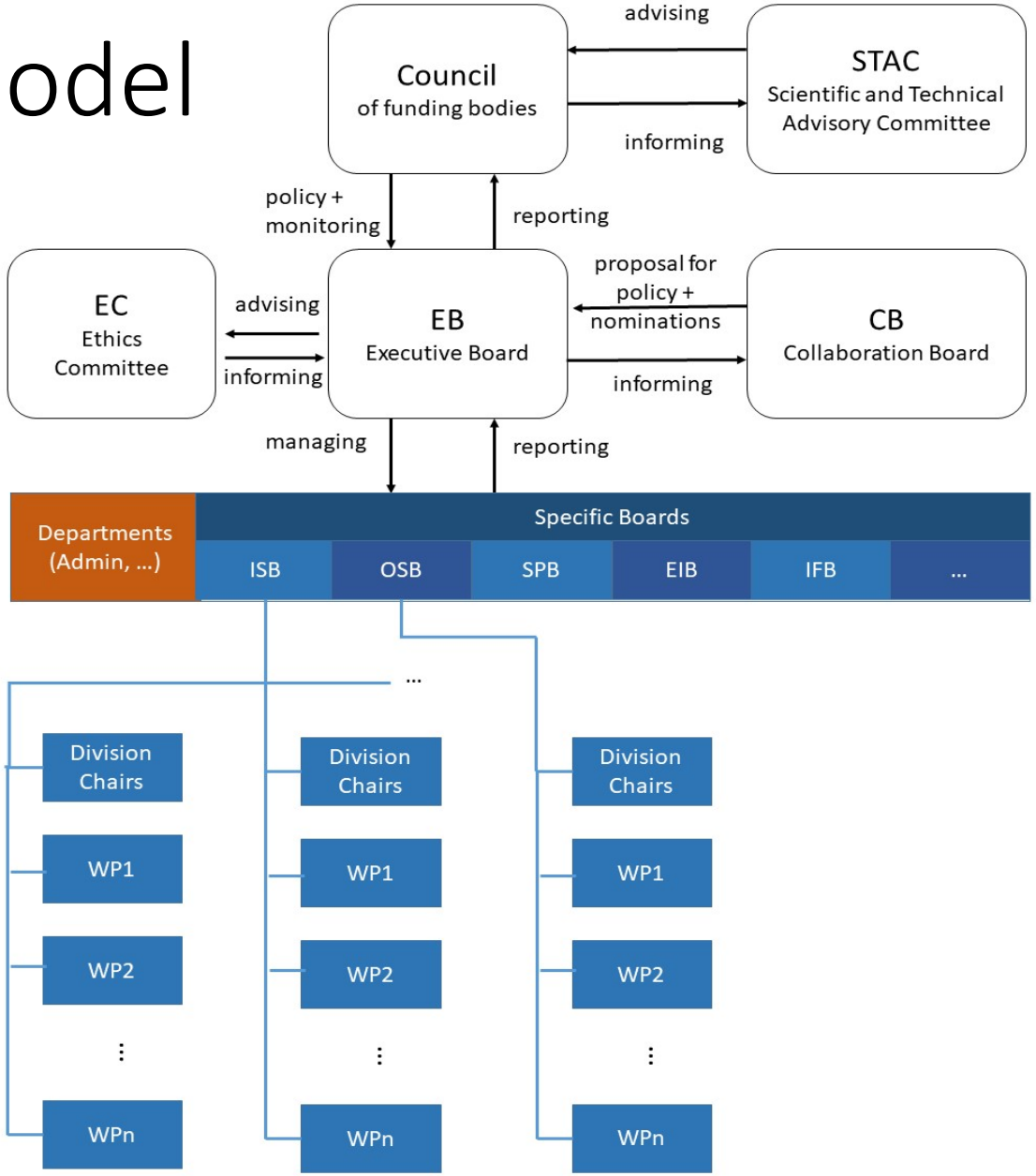
The ET-SC vision: main fluxes

- In the last months we had a very intense discussion in the ET-SC to concretise and put in operation an effective governance scheme (at least for the preparatory phase) that could work and could implement the studies and progresses urgently needed by ET

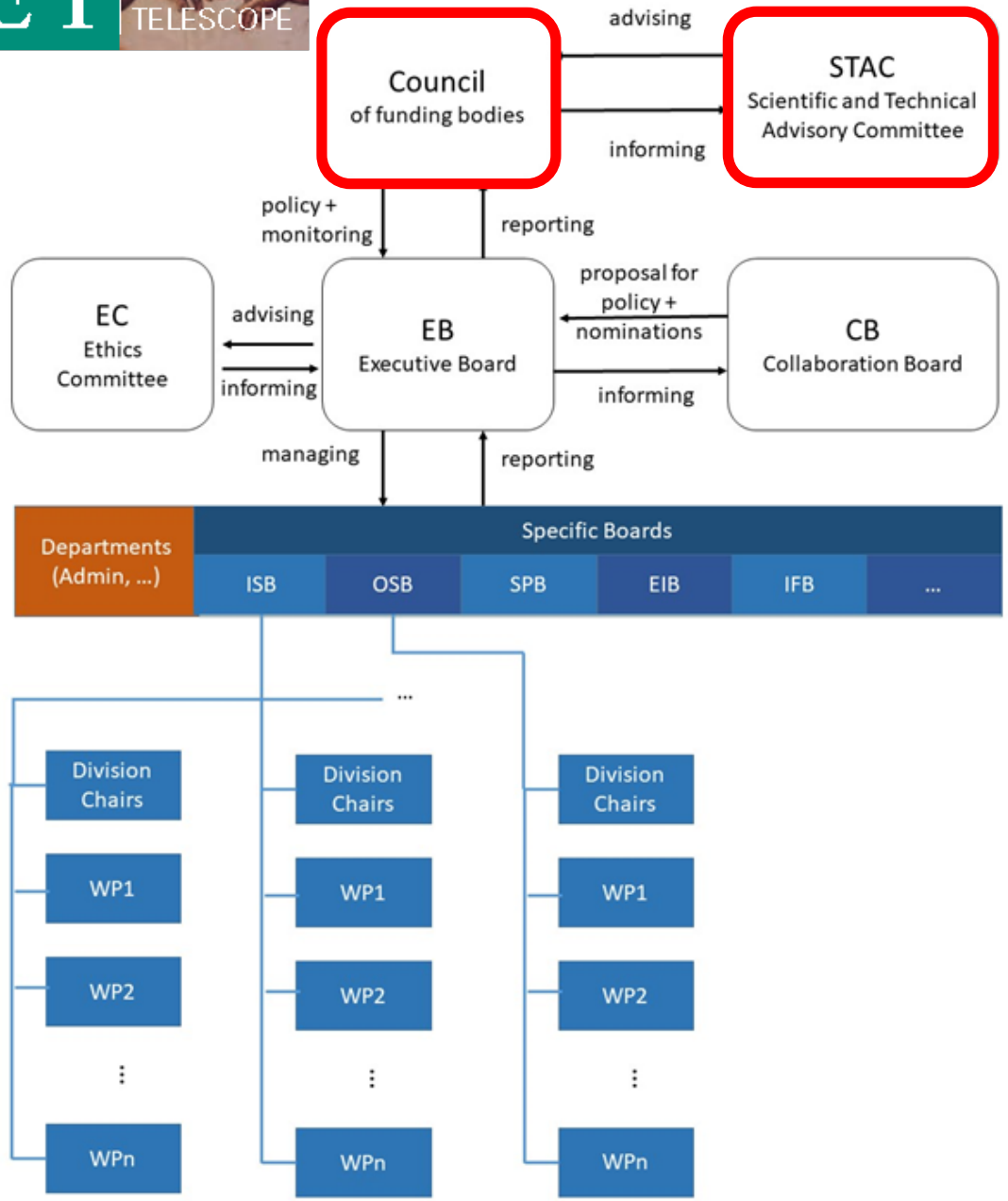


The proposed Governance model

- The ET-SC is building a detailed governance model
  - defining the needed management and technical bodies and roles,
  - depicting the interfaces and relationship between the collaboration and the project
  - Injecting the collaboration know-how and expertise in the project structures
- Current (working) document:
  - Management structure of the ET Collaboration, ET-0069A-20



ET governance proposal



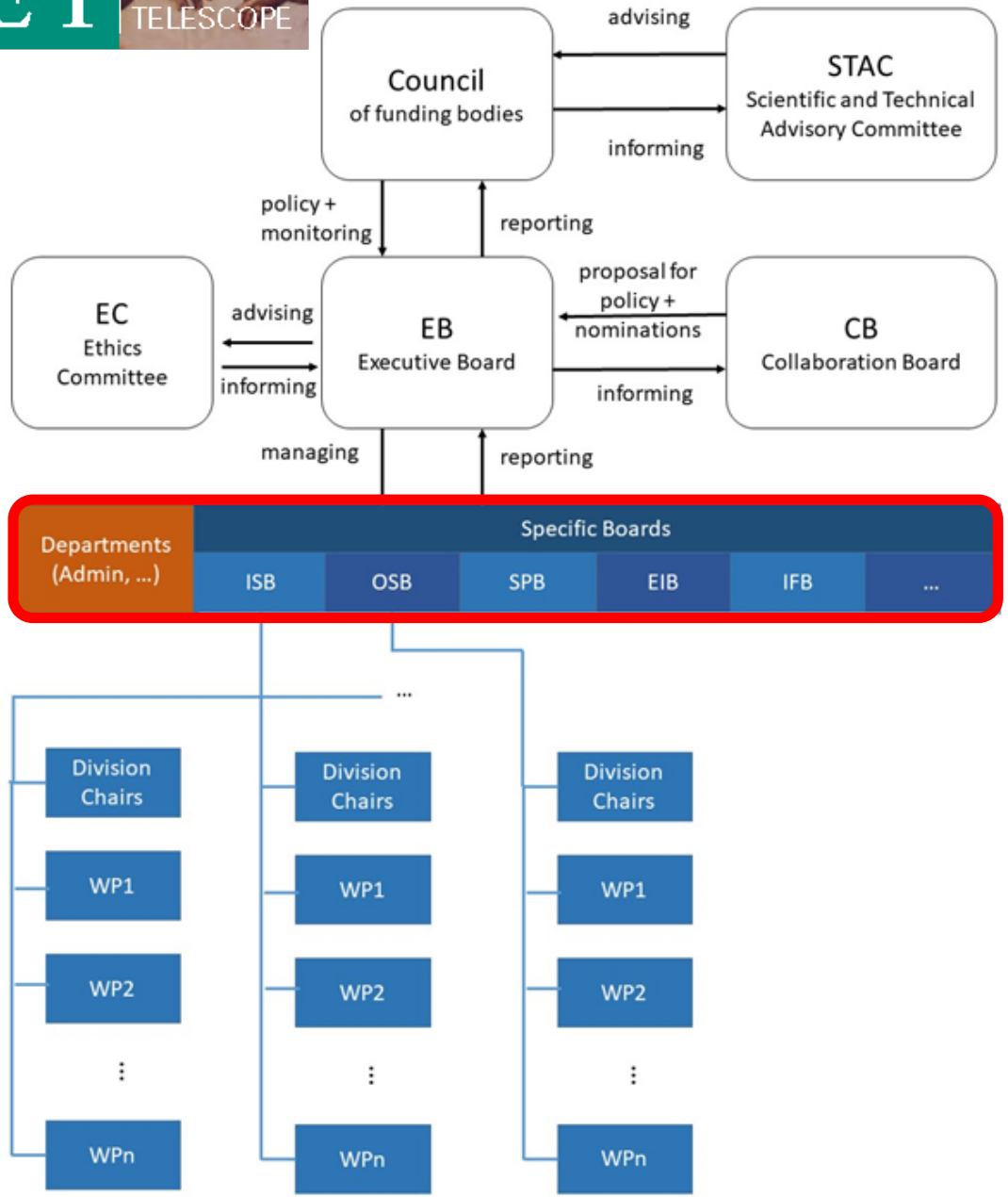
ET Council

Representatives of the
funding agencies and governments.
Composition and rules beyond our
control.
Funding agencies and Ministries
delegates are currently meeting to define
ET project rules and organisation

ET STAC

External Scientific and Technical
Advice Committee appointed by the Council

ET Boards



Boards

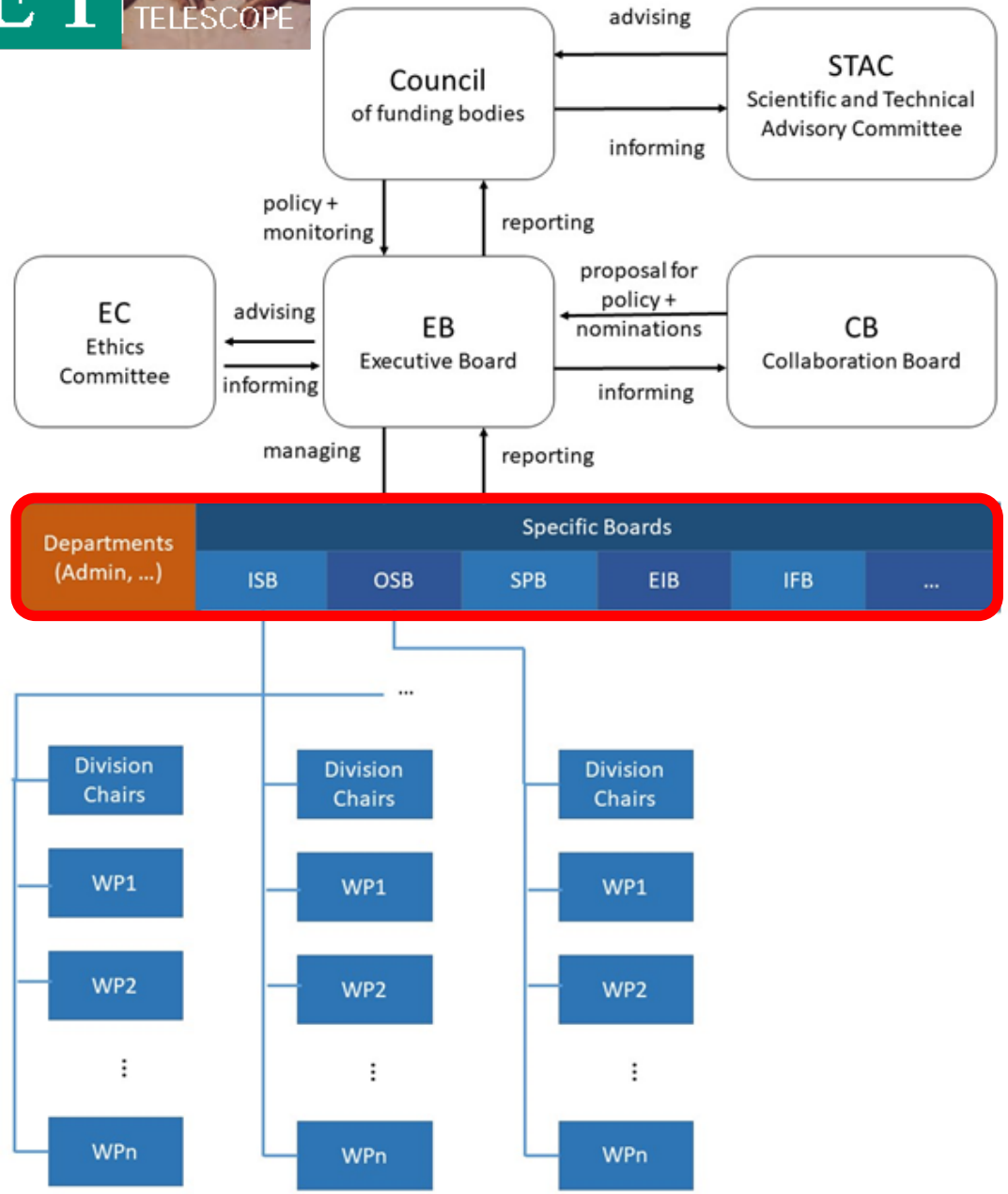
Divisions

Working groups

ISB Instrument Science Board
OSB Observational Science Board
SPB Site Preparation Board
EIB Electronic Infrastructure Board
IFB Internal Finances Board
+ other departments like
Administration, Project office (TBD)

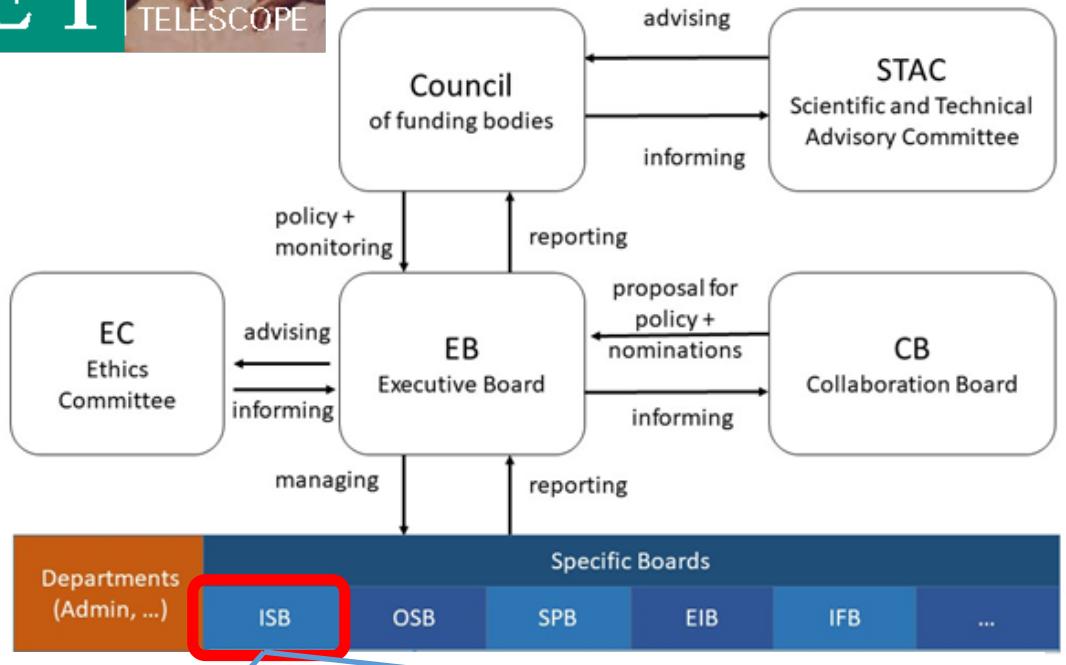
Each board subdivided into **Divisions**
Which are divided into **working groups**

ET Boards



- **The Instrument Science Board (ISB)**
  - will deliver the ET Technical Design Report (ET-TDR) for infrastructure and detectors
  - will identify the missing technologies and suggest a (living) plan for R&D activities. first version ca. March 2021.
- **The Observational Science Board (OSB)**
  - will detail the ET science case
  - will prepare the data analysis requirements
  - will indicate the computing requirements for ET
- **The Site Preparation Board (SPB)**
  - will coordinate the effort on the site related activities
  - formulate the site specifications for Einstein Telescope
  - will prepare the choice of the site for the Einstein Telescope observatory
- **The E-Infrastructures Board (EIB)**
  - will define the computing and storage resources, networking, local and distributed e-infrastructures
  - will study the computing models that can be adopted in ET and the synergies with the e-infrastructures available or expected in Europe in the next decade.
- **The Internal Finance Board (IFB)**
  - will have the mandate to evaluate the financial needs
  - will collect and harmonise the inputs received from the other technical boards
  - will suggest the funding tools needed to elaborate a financial strategy to be proposed to the Council.

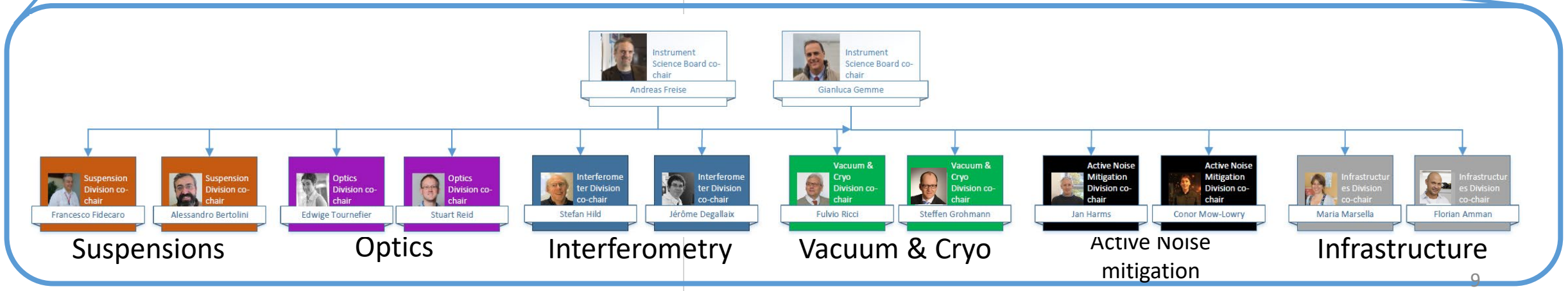
ISB Instrument Science board

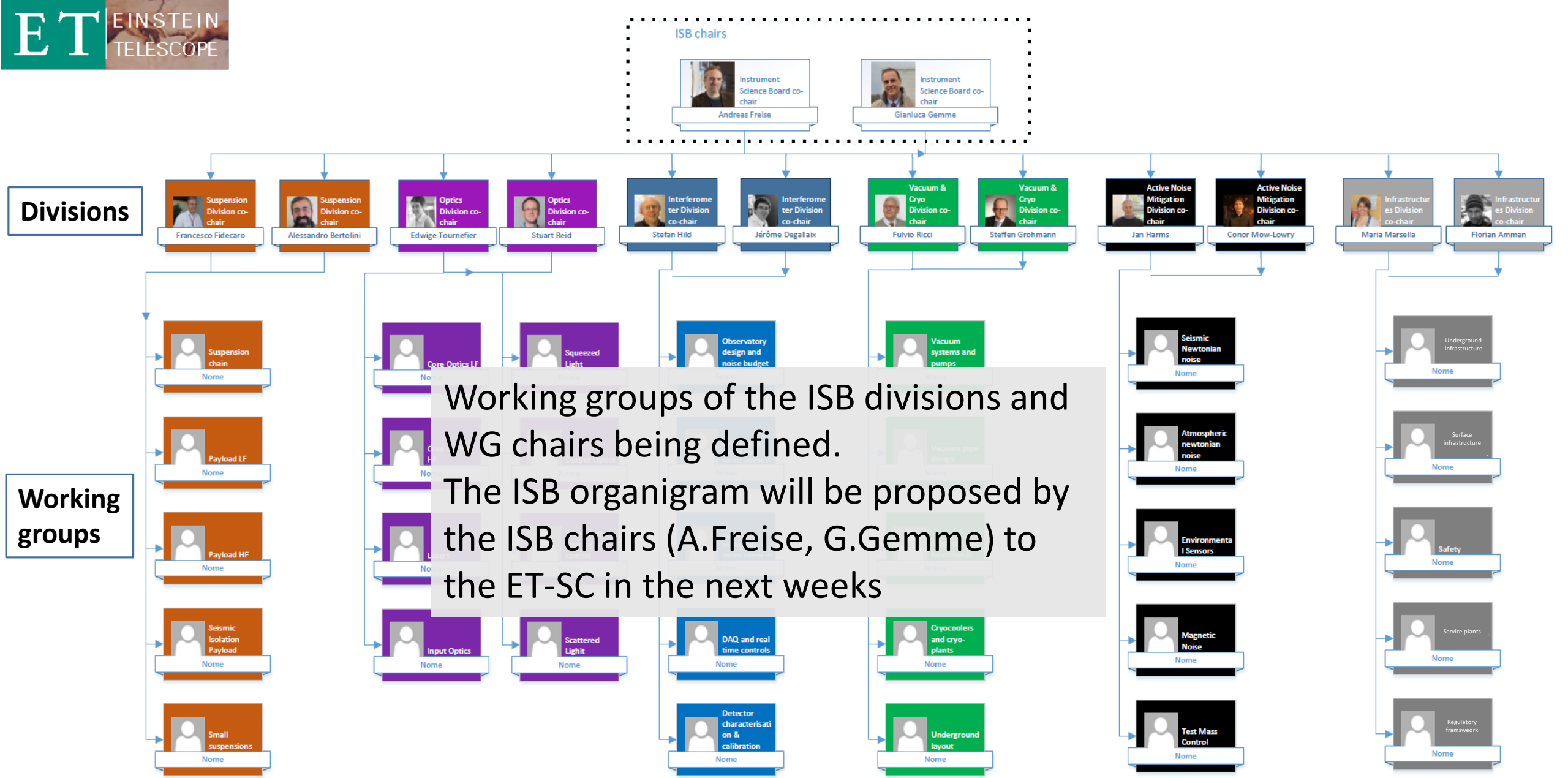


Divisions:

- Suspensions
- Optics
- Interferometer
- Vacuum + Cryogenics
- Active Noise mitigation
- Infrastructure

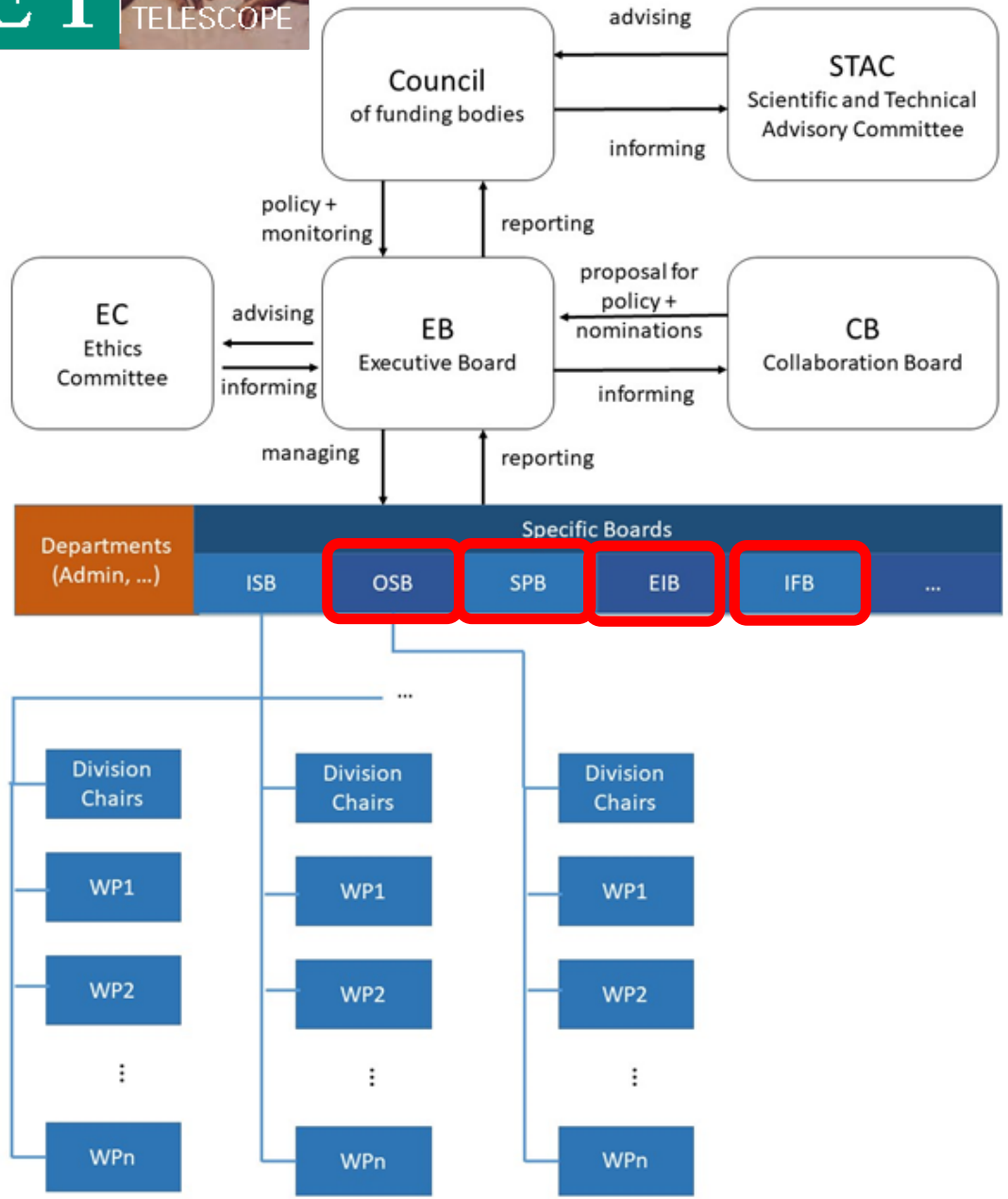
Division chairs assigned



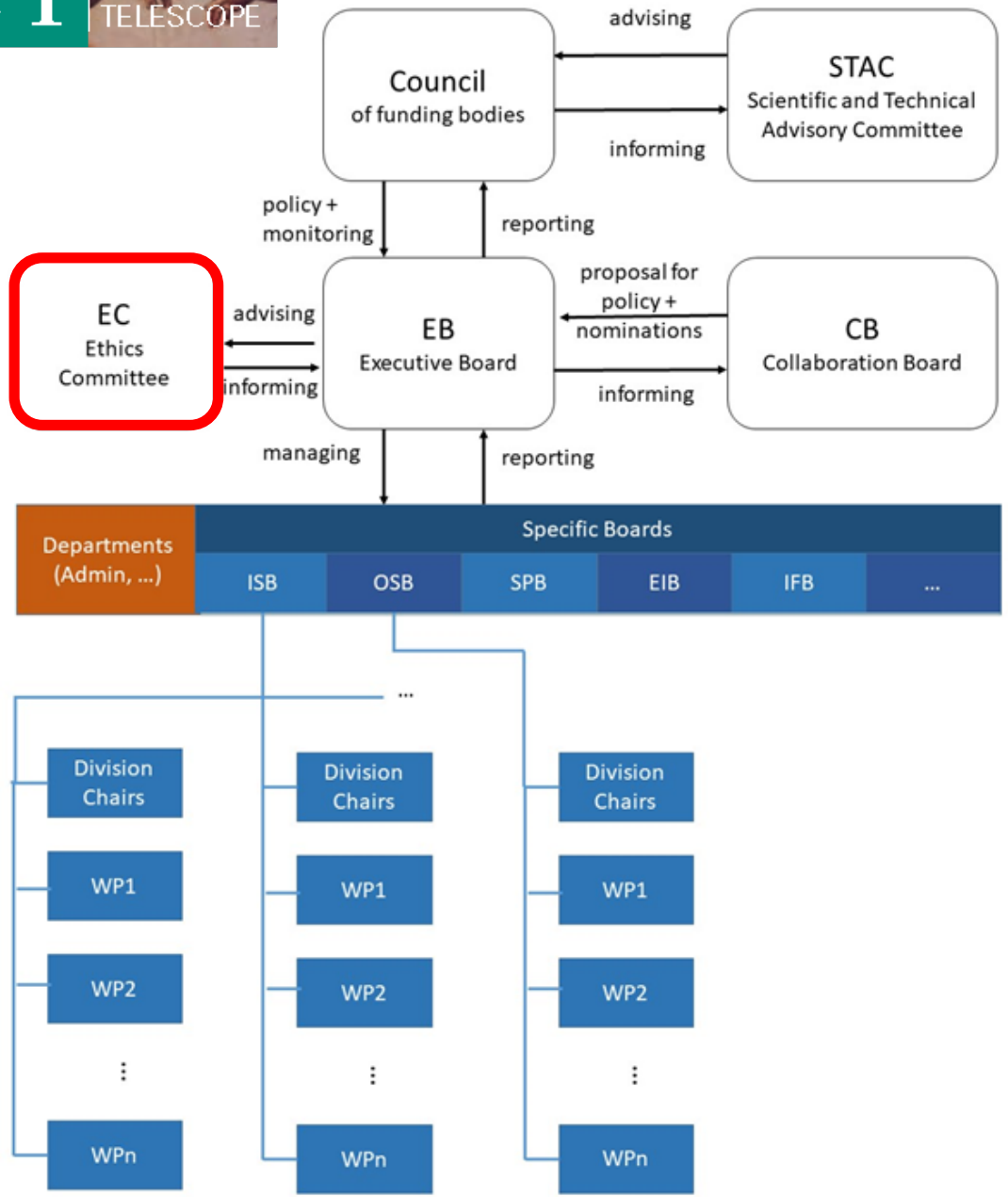


Working groups of the ISB divisions and WG chairs being defined.
The ISB organigram will be proposed by the ISB chairs (A.Freise, G.Gemme) to the ET-SC in the next weeks

Other ET Boards

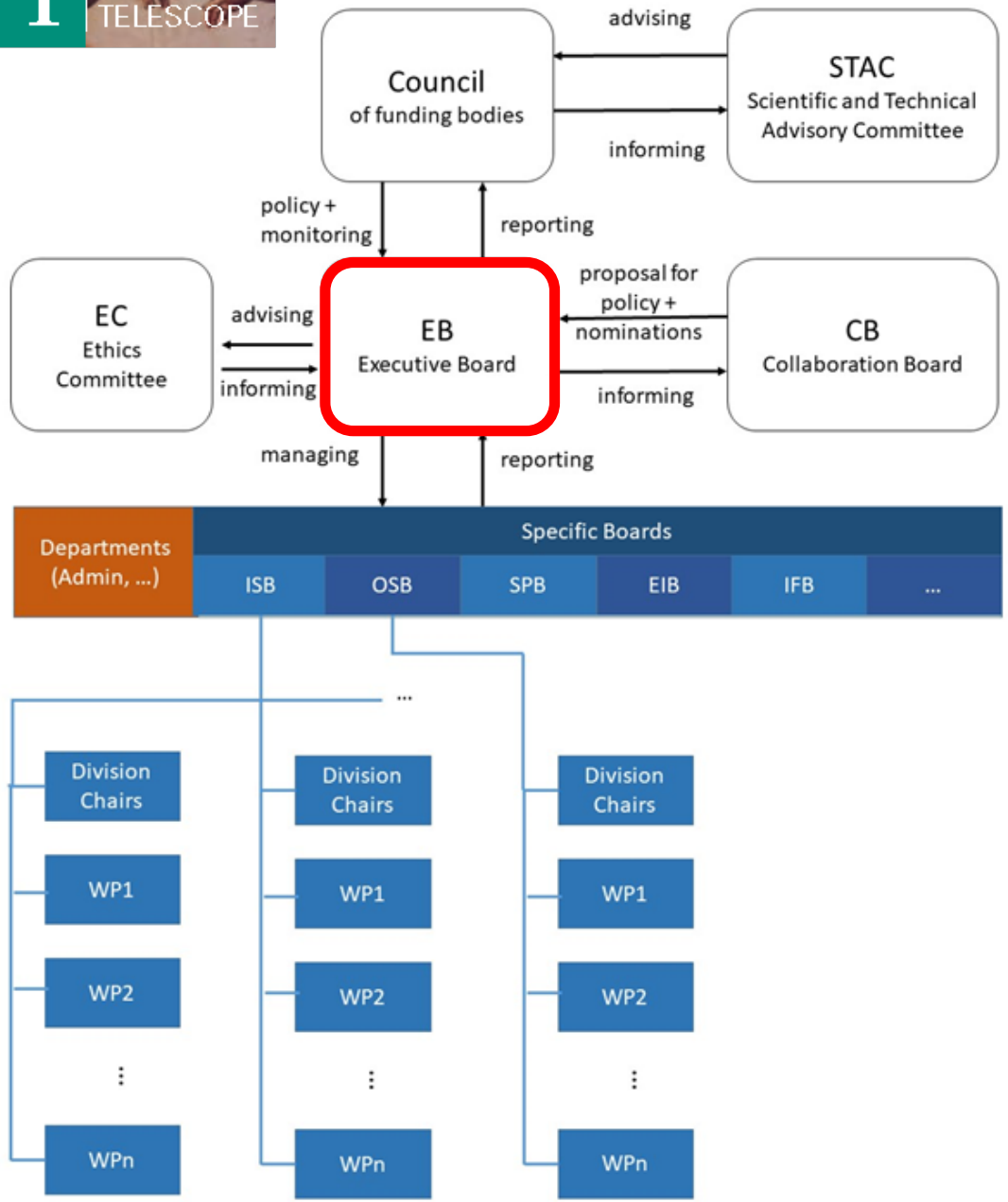


- **The Observational Science Board (OSB)**
  - An explorative sub-committee of the SC has been appointed to investigate the structure and the organization
    - M. Branchesi
    - E. Brocato
    - N. Christensen
    - M. Maggiore
- **The Site Preparation Board (SPB)**
  - An explorative sub-committee of the SC has been appointed to investigate the structure and the organization
    - Aniello Grado
    - Mario Martinez
    - Fulvio Ricci
    - Jo van den Brand
- **The E-Infrastructures Board (EIB)**
  - We still have to begin its definition
- **The Internal Finance Board (IFB)**
  - We still have to begin its definition



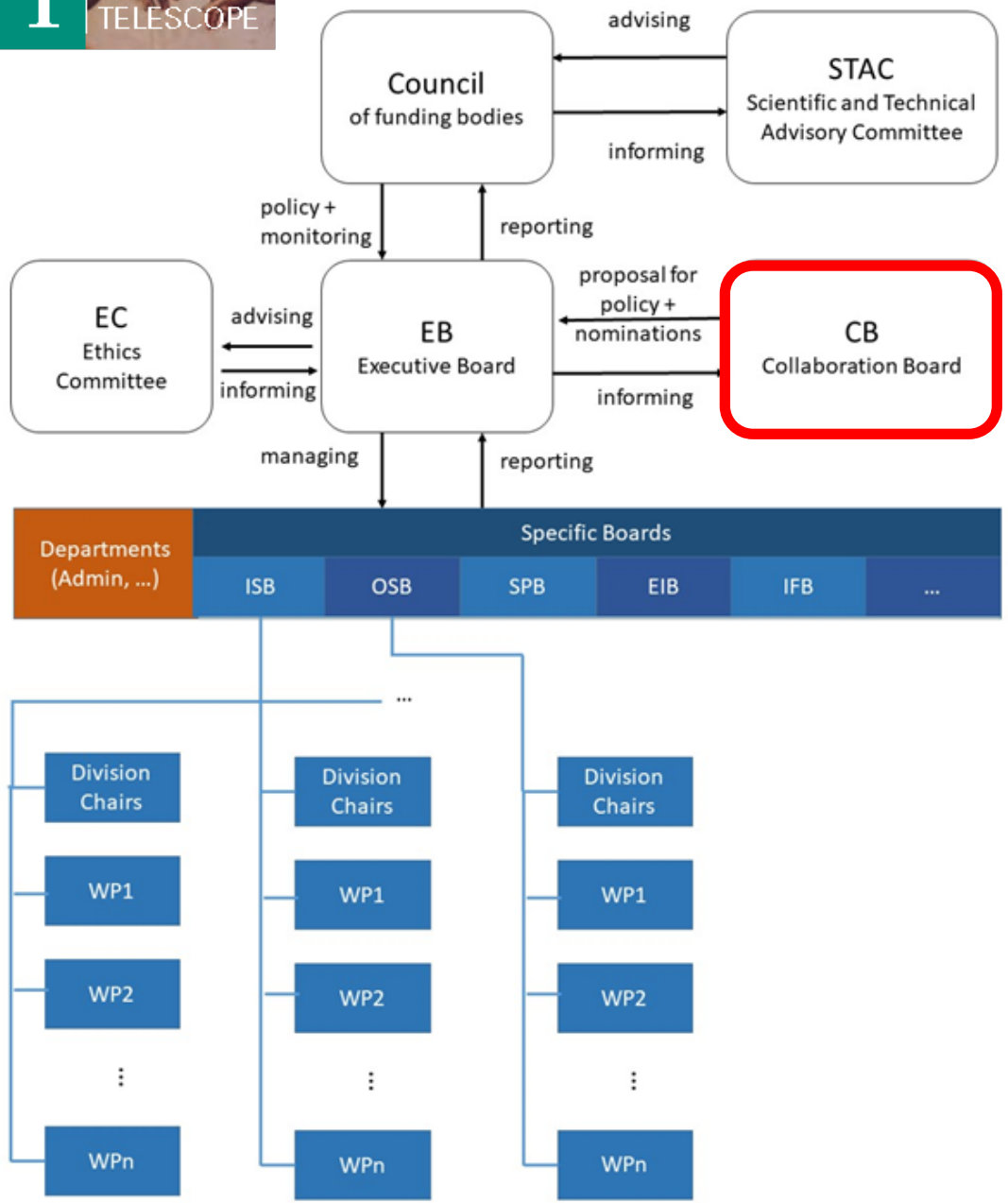
Ethics committee

- It will take care of
  - equity
  - diversity
  - Inclusion
  - anti discrimination
  - anti racism
  - etc.
- ombudsperson



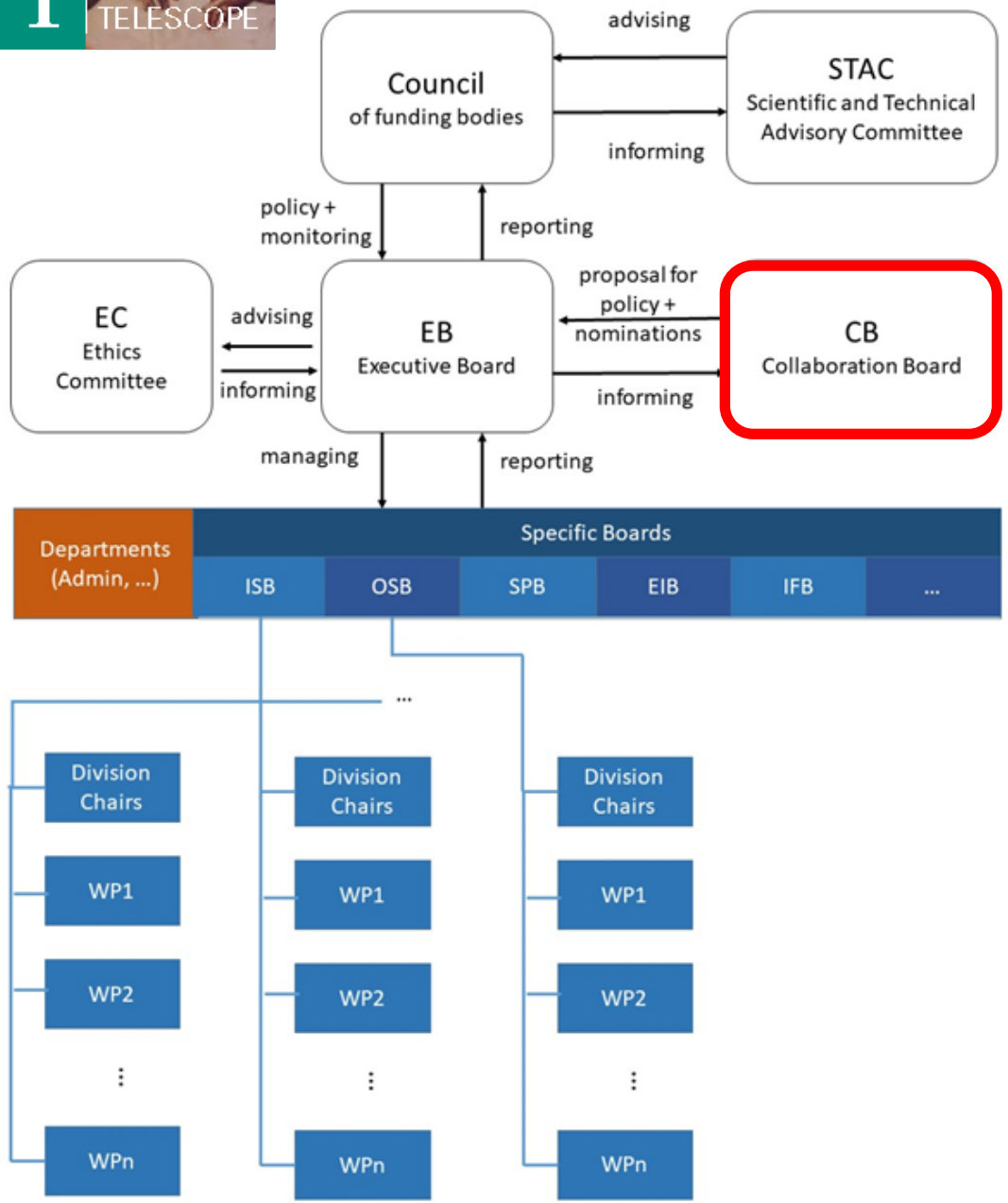
Executive Board

- Central body of ET Project
- Responsible for day to day decisions
- EB will set up administration board
- Members:
  - EB manager /director
    - Appointed by the Council
    - Appoints EB members
    - Chairs meetings
    - Coordinates project work
    - Communicates with Council
    - Manages and he/she is responsible for the (large) expenditures
  - Delegates of the Specific boards
    initially the Co-chairs
    (desirable to have 1/board to keep EB workable)
  - ET Spokesperson appointed by the CB
  - Technical director, site manager, Quality Control officer, etc. TBD by the EB and approved by Council



Collaboration Board

- Represents the ET scientific collaboration
  - Representation based on the Research Unit concept:
  - Research Unit (RU):
    - Team belonging to the same university and/or the same local unit of a national research organisation
    - Representation is based on a rougly proportional law based on the Full Time Equivalent (FTE) declared by the RU
    - Common funds mechanism possible
    - FTE verification based on analytical methods



Collaboration Board

- Represents the ET scientific collaboration
- Delegates from each Research Unit (RU)
- Delegates declare FTEs for their RU
- CB decides on new RUs
- Proposes chairs of „boards“
- Defines and suggests long term strategy
- Defines membership rules for ET Collaboration
- Defines publication rules for ET Collaboration
- Elects spokesperson (3y tbd)
  - Represents collaboration in EB and Council
  - Communicates between CB and project /proposes EB member nominations to EB
  - EB member
  - For the first period it can be coincident with the EB manager (at least until the Council will not appoint the official EB manager)

ET-Steering Committee actions

- The ET-SC is defining the previously described structures and rules in order to have the activities of the project progressing
  - We have a tremendous series of deadlines and deliverables in the next months
    - ESFRI proposal defence
    - ET pre-preliminary design
    - ET site selection
    - ET preliminary design
    - …
  - We are confident that these structures will continue to work when the ET project will fully be defined
- The formation of the ET collaboration is one most urgent activities

ET collaboration

- The ET collaboration should be in force when the ESFRI roadmap will be published (October 2021)
- The first step is to identify the Research Units that will participate and to compose the Collaboration Board in order to set-up the first decisional body of the ET governance
- Survey:
  - to evaluate the number and composition of the RUs
  - To trigger the effective applications to enter in to the ET collaboration
    - https://l.infn.it/etsurvey
  - To be submitted within the 15th of February:
    - **It will not define/decide/freeze the participation to ET**, but will give an indication of the interested groups and facilitate the first contacts and the early involvement in the ET activities
    - Official application procedure will be defined in the next months.

Collaboration survey 1/3

ET Collaboration survey form

This form will be used evaluate the size of the future ET collaboration. The true application to the ET collaboration will be managed in the next months, starting from the information collected through this form.
Before to start download the RU member table hereafter, fill it offline and then upload it when asked:

https://apps.et-gw.eu/tds/ql/?c=15702

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not **michele.punturo@pg.infn.it**? Switch account

* Required

Name of the submitter *

Your answer

Institutional email address of the submitter *

Your answer

Next

A	B	C	D	E	
N	Family Name	First Name	Role	FTE]0,1]	Expected Activity
1					
2					
3					
4					
5					
6					

Collaboration survey 2/3

ET Collaboration survey form

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not **michele.punturo@pg.infn.it**? Switch account

* Required

Research Unit Identification

Describe here your research unit

Country *

Choose

Name of the Research Unit *

Your answer

(First) Institution *

Your answer

Affiliated Institution *

- None
- Other:

City *

Your answer

Back Next

Collaboration survey 3/3

ET Collaboration survey form

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not **michele.punturo@pg.infn.it**? Switch account

* Required

Research Unit Composition

Quantify and qualify the composition of the RU

Number of researchers and engineers (including PhD) expected to work on ET *

Your answer

Number of expected Full Time Equivalent (FTE) devoted to ET activities *

Your answer

Please, comment, if needed, the previous numbers

Your answer

Please download and modify offline the template of the RU member table, if not already done
https://apps.et-gw.eu/tds/ql/?c=15702

Upload the RU composition table *

Add file

Expertise table *

- [ ] Astrophysics and/or multimessenger Astronomy
- [ ] Civil engineering, underground and surface infrastructures
- [ ] Computing and/or Networking
- [ ] Cosmology
- [ ] Data Acquisition and/or control systems
- [ ] Data Analysis
- [ ] Fundamental physics and/or General Relativity
- [ ] Laser technology and/or opto-electronics
- [ ] Material science and/or thermal noise
- [ ] Optics and/or optical coatings
- [ ] Seismic filtering and/or suspensions
- [ ] Vacuum apparatuses and/or cryogenics

Participation of the RU to current GW collaborations *

- [ ] Virgo
- [ ] LSC
- [ ] LISA
- [ ] KAGRA
- [ ] None

Expertise further description *

Your answer

Final comments and remarks

Your answer

Back Submit

Discussion

- We would like to receive your input/suggestions on:
  - Organisation
  - Membership
  - Procedures
  - Relationship with ongoing GW collaborations
  - Expression of interest