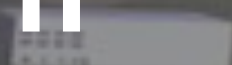


ET

EINSTEIN
TELESCOPE

Towards the ET Symposium

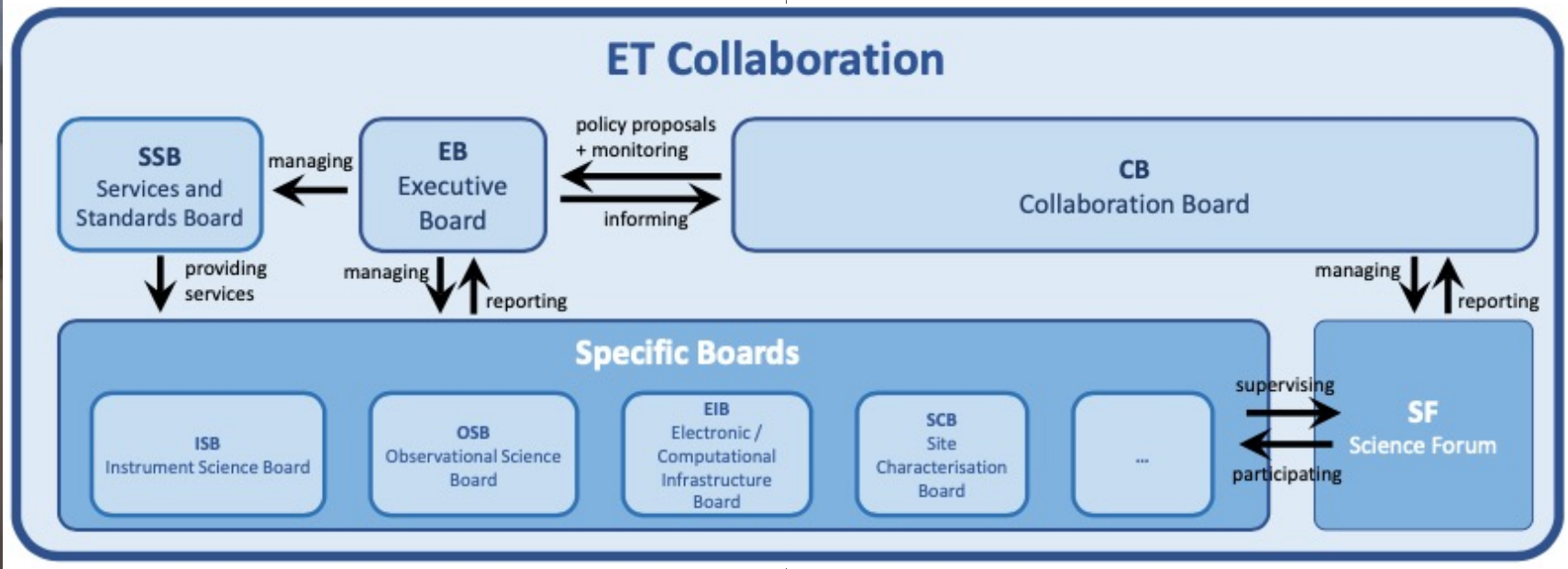


THE 12th ET Symposium

- June 7th-8th 2022 Hungarian Academy of Sciences (Budapest) <https://indico.ego-gw.it/event/411/>
- The 12th ET symposium is devoted to the founding of the Einstein Telescope Collaboration
- It will be hybrid. Zoom connection coordinates will be distributed to the registered participants.
- At least 1 talk for each board is expected in the morning of June 7th (at maximum 1h for each board)

ET Collaboration Structure

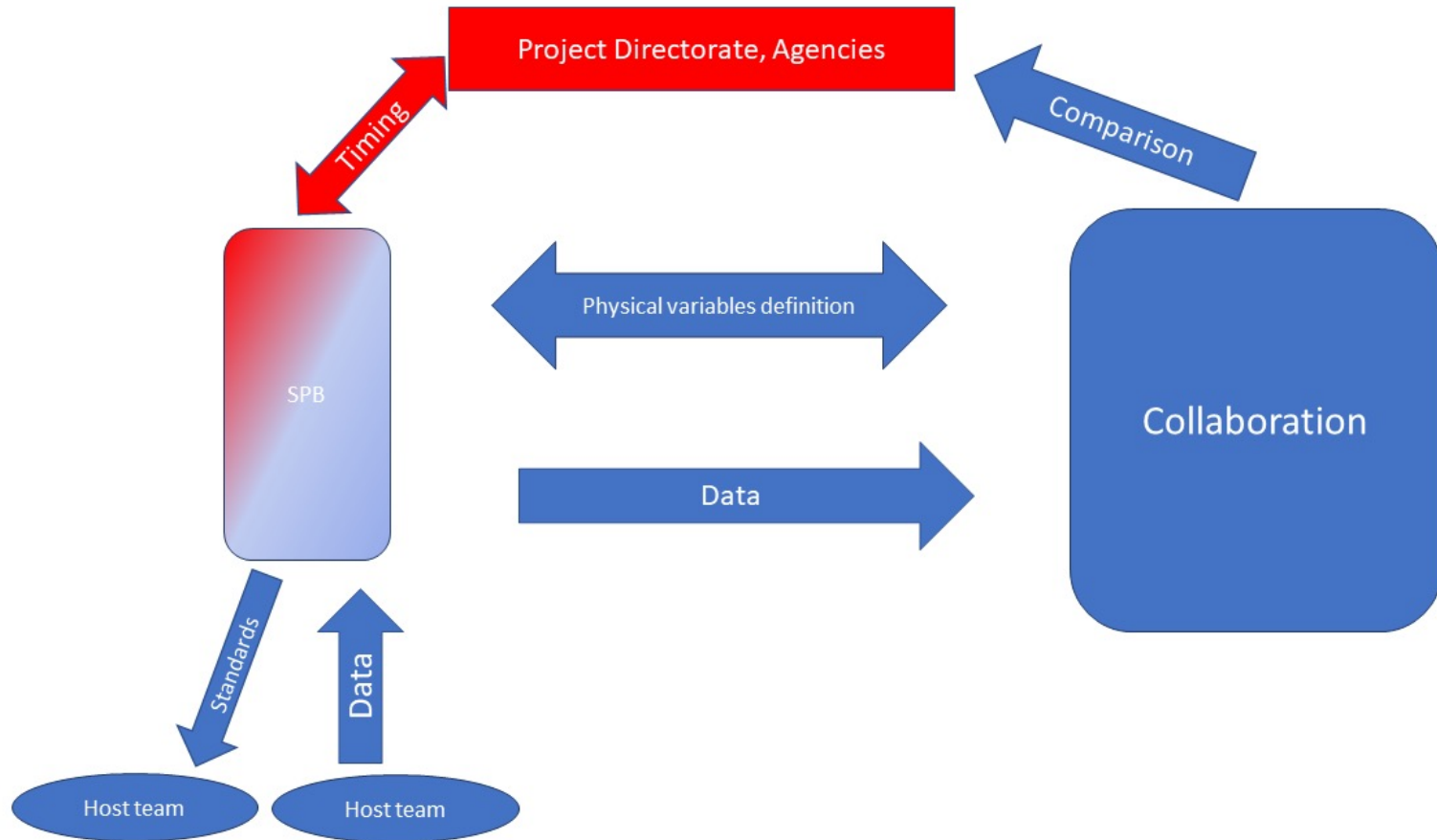
- Executive Board (EB)
- Collaboration Board (CB)
- Science Forum (SF)
- Specific Collaboration Boards
- Service and Standards Boards and Committees



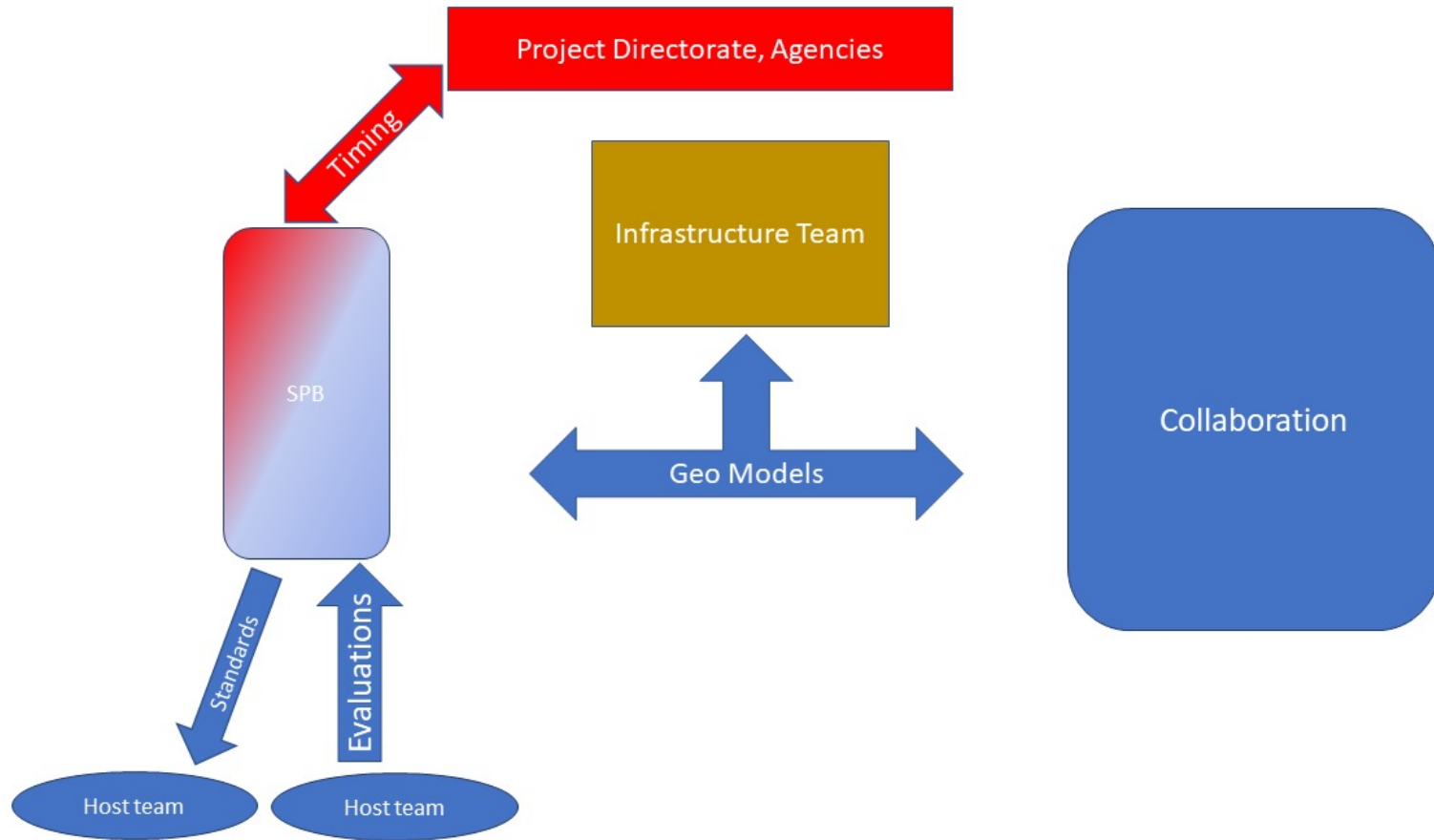
The SPB must lead the effort on the Einstein Telescope site related activities

- It must coordinate the activities to acquire the required characteristics for each site proposing to host the Einstein Telescope
- Collect, organize and/or produce all the characterizations and documentation needed for a fair comparison of the sites;
- Propose a common framework and common basis for the evaluation of the candidate sites.

Information Flux



Information Flux



- **Geotechnical investigations**
- **Geological investigations**
- **Feasibility Studies**
- **Seismic measurements**
- **Environmental noise measurements**

Board Activity Plan

- General workshop to summarize the status of all the activities
 - Doodle to set a 2-3h meeting in the week from May 23rd-27th
- Updates on site measurements, investigations and plan for coming years (EMR and Sardinia) 1h
- Updates seismic studies (EMR and Sardinia) 1h
- talk on Saksen/Lausitz 20'
- Excavations and underground layout 20'
- towards common tools, common instrumentation, common data archives, etc. i.e. synergies between our efforts 20'

Organization of Computing Resources Pledges

EIB Requests:

- how to organize in the future computing resource pledges (annual basis for example?) in order to plan and secure them with computing centers ?
- what is the manpower needed and available to organize a given data production ?
- what is the level of computing resources needed (storage and CPU) ?
- which software is used ?
- once the data are produced, how to organize their access to ET users ?
- how many users are expected ?

The logo for the Einstein Telescope (ET) project, featuring the letters 'ET' in a white serif font on a green rectangular background.The logo for the Einstein Telescope (ET) project, featuring the words 'EINSTEIN TELESCOPE' in a white serif font on a brown rectangular background with a faint image of hands.

EU/INFRADEV – Einstein Telescope Preparatory Phase

WP4 - Site Preparation - is responsible for collecting and processing, from each potential site, all the required information necessary for site qualification. This includes site specific characteristics that might impact the ET scientific performance, socio-economic impacts, legal implications, and civil engineering costs. The information will be treated in a coherent and transparent manner, with the aim of facilitating a site selection process in a timescale consistent with ET anticipated schedule. M. Campinelli (INFN) and F. Linde (NIKHEF) act as co-coordinators of WP4 in this proposal.

Participating institutions: INFN, Nikhef, UW (Warsaw) & Wigner RCP (Budapest)(***and anyone else is of course more than welcome!***)

Available funding: 200 k€ for professional consulting expenses related to civil engineering costs and socio-economic impacts.

WP4 Gantt chart. Starting date assumed to be 1-Sept-2022.

WP4. Site Preparation

Start of ET-PP

M4.1 Document detailing the site-specific characteristics

M4.2 Common methodology to estimate impact of site characteristics on ET sensitivity

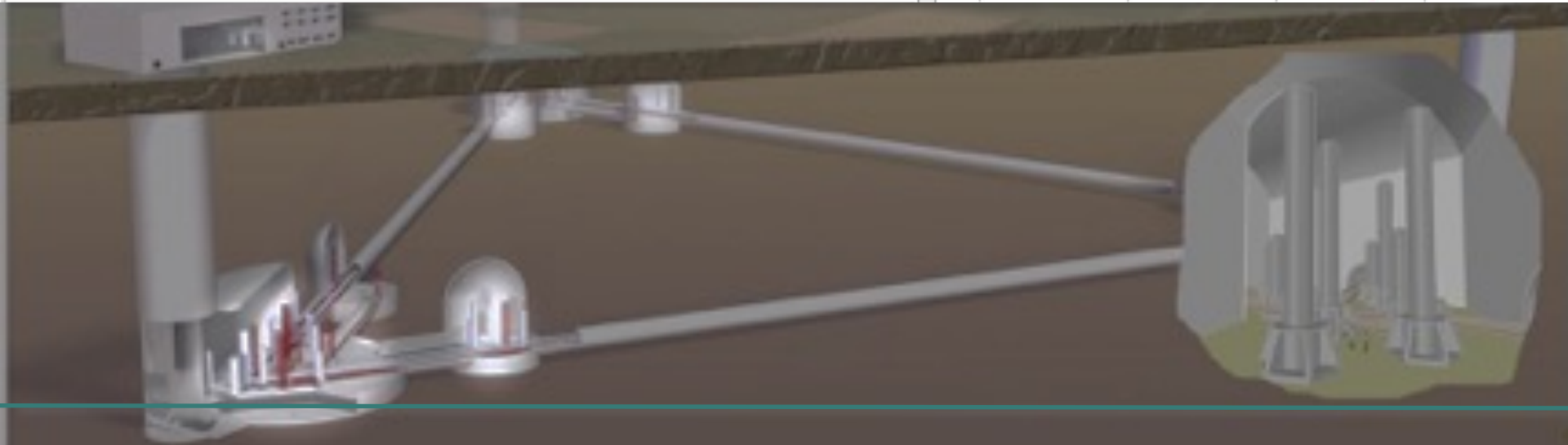
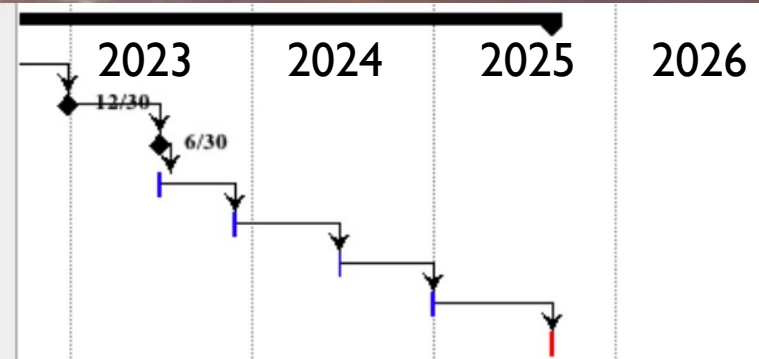
D4.1 Scan of legal procedures

D4.2 Updated socio-economic impact studies

D4.3 Complete quantification of all the aspects impacting the Einstein Telescope perform

D4.4 3D geology, hydrology, etc. model

D4.5 Robust and complete cost and schedule estimates of the excavations



Milestone name – Date (in months)/Lead Institution

- **M4.1 – M3/?:** *Document detailing the site-specific characteristics that impact ET sensitivity and its duty cycle => **REPORT***
- **M4.2 – M10/?:** *Common methodology to estimate impact of site characteristics on ET sensitivity and operation and, if required, a scheme to compensate it => **REPORT***

My take:

Both Milestones should be formulated in close collaboration with the ISB and OSB and we should start the discussions with these boards soon.

Deliverable name – Date (in months)/Lead Institution

- **D4.1 – M10/Nikhef:** *Scan of legal procedures, permitting and land acquisitions i.e. the steps to be taken prior to starting excavations*
- **D4.2 – M15/INFN:** *Updated socio-economic impact studies. Scan of accessibility, quality of life etc.*
- **D4.3 – M28/UW:** *Complete quantification of all the aspects impacting the ET performance for each site*
- **D4.4 – M30/INFN:** *Report on 3D geology, hydrology, etc. model with localisation of the ET infrastructure*
- **D4.5 – M42/Nikhef:** *Updated cost and schedule estimates of the excavations. Including, if necessary: instrumentation for Newtonian Noise cancellation; costs of debris removal; costs of land acquisition, permitting, etc.*