

Conclusive Remarks


Harald Lück
&
Michele Punturo


**2nd Einstein Telescope
Annual meeting**


ET EINSTEIN
TELESCOPE


**November 14-17
2023**

IJCLab Orsay France
Auditorium P. Lehmann

 IJCLab
Irene Joliot-Curie
Laboratoire de Physique
des 2 Infinis

 CNRS

 université
PARIS-SACLAY

 Université
Paris Cité





2nd Einstein Telescope Annual Meeting

Nov 14 – 17, 2023
IJCLab
Europe/Paris timezone

THANK YOU!

Local organizing committee

Participant List

551 participants

162 in person registered participant (145 present)
395 remote participant registered
143 contributions (talks)

It was a very interesting and,
we think, a very successful event!

The IJCLab (CNRS/IN2P3 and UPSaclay) A2C/OG group

- Nicolas Arnaud
- François Glotin
- Angélique Lartaux
- Nicolas Leroy
- Florent Robinet

+ helpers

The organisation of this meeting has been excellent!
Especial thanks to Angelique for finding solutions for every
problem we encountered!

A very busy schedule (again) Make sure you upload your presentations!

09:00	Registration 2020-Auditorium - Auditorium P. Lehmann, UCLab 08:30 - 09:00	Introduction Dorotea Razzasca Paola VERDIERI et al.	Introduction Dorotea Razzasca Paola VERDIERI et al.
09:00	Local authorities welcome talk 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:00 - 09:05	ET Web/social media and logs VINCI2020 Napoli	ESCAPE and the ET Giuseppe Lamasina (TNC)
09:00	Logistics 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:05 - 09:10	ET resources/repository Sascha Pieper	The Tachyon cluster in Torino Luca Lazzarini et al.
09:00	ET Collaboration Board report 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:10 - 09:20	ET Education Center in Netherlands Gideon Roelink	Mock Data Challenge: status TNC
09:00	ET Collaboration: Executive Board report 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:20 - 09:30	ET communication and public engag... Matteo Dent	Geneva Workshop outcomes Paul Laycock
09:00	EBB short introduction 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:30 - 10:05	Discussion 2020-139 - Salle 139, UCLab 10:05 - 10:25	Sustainability & computing: intro Paola VERDIERI...
09:00	OSB short introduction 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:30 - 10:20	2020-Auditorium - Auditorium P. Lehmann, UCLab 09:55 - 10:50	
09:00	SPB/SCB short introduction 2020-Auditorium - Auditorium P. Lehmann, UCLab 10:20 - 10:25	2020-Auditorium - Auditorium P. Lehmann, UCLab 10:25 - 10:30	
09:00	ISE short introduction 2020-Auditorium - Auditorium P. Lehmann, UCLab 10:25 - 10:30	2020-Auditorium - Auditorium P. Lehmann, UCLab 10:30 - 10:35	
09:00	Coffee break 2020-Auditorium - Auditorium P. Lehmann, UCLab 10:30 - 10:35	2020-Auditorium - Auditorium P. Lehmann, UCLab 10:35 - 10:40	
09:00	ETO news and updates 2020-Auditorium - Auditorium P. Lehmann, UCLab 10:50 - 11:30	2020-Auditorium - Auditorium P. Lehmann, UCLab 11:10 - 11:30	
09:00	ET-PP news and updates 2020-Auditorium - Auditorium P. Lehmann, UCLab 11:30 - 11:45	2020-Auditorium - Auditorium P. Lehmann, UCLab 11:45 - 12:00	
09:00	ETO Project Office 2020-Auditorium - Auditorium P. Lehmann, UCLab 11:45 - 12:00	2020-Auditorium - Auditorium P. Lehmann, UCLab 12:05 - 13:00	
09:00	ETO Engineering Department 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:00 - 12:15	2020-Auditorium - Auditorium P. Lehmann, UCLab 12:15 - 12:30	
09:00	ETO Communications 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:15 - 12:30	2020-Auditorium - Auditorium P. Lehmann, UCLab 12:30 - 12:45	
09:00	CERN vacuum pipe results 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:30 - 12:45	2020-Auditorium - Auditorium P. Lehmann, UCLab 12:45 - 13:00	
09:00	CERN vacuum pipe planning and perspective 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:45 - 13:00	2020-Auditorium - Auditorium P. Lehmann, UCLab 13:00 - 14:10	
09:00	Lunch break 2020-Auditorium - Auditorium P. Lehmann, UCLab 13:00 - 14:10	2020-Auditorium - Auditorium P. Lehmann, UCLab 14:10 - 14:20	
09:00	Division 1 - Fundamental Physics Relief Parts Upgrade of active and passive atten... Leonardo Lucchesi	Introduction Steven Schwartz	EMR General overview and Organization Wim Valk
09:00	Division 2 - Cosmology Archimedes Ghisla A test facility set-up for characteriz... Francesca Spada	Setting the stage Marica Branchesi	2020-101 - Salle 101, UCLab 14:30 - 14:35
09:00	Division 4 - Multimessenger Observ... Giancarlo Ghisla Novel prototype for the ET Superan... Francesco Fiduciani	Vigo low latency Roberto De Pizzi...	KAGRA sapphire test masses Marc Eisenmann
09:00	Division 5 - Synergies with other GW... Nicola Turchetti Simulating the Superanemator with... Massimiliano Rasi...	Vera Rubin Julian Peleton	EMR borehole drilling approach and schedule Soren Vitek
09:00	Division 6 - Nuclear Physics Micaela Clerici HF TM towers Antonio Pasqualini	ESA Oliver Jennrich	EMR seismic and noise measurements Michael Klein
09:00	Division 7 - Shields: Collapse and bet... Marie-Anne Biss... The ET beampipe requirements Aurelio Ghisla	ESO Nando Pined	EMR geomechanics and civil engine... Patricia Lamas
09:00	Division 3 - Population Studies Galle Chan A new real-time control system for... Pablo Fragner	Virtual observatory Giuseppe Grieco	Discussions and Conclusions (Site Characterization strategy, Workshop... Domenico D'Ubalo et al.
09:00	Coffee break 2020-Auditorium - Auditorium P. Lehmann, UCLab 15:00 - 15:40	2020-1-4900 - Auditorium Joliet Curie, UCLab 15:40 - 15:55	2020-101 - Salle 101, UCLab 15:30 - 15:55
09:00	Division 8 - Waveforms Patricia Schmidt PLANET Laboratory Luciano Di Fiore	2020-1-4900 - Auditorium Joliet Curie, UCLab 16:25 - 17:05	2020-101 - Salle 101, UCLab 16:55 - 17:25
09:00	Division 9 - Common Tools Ri Song Heng E-TEST Soren Anwar	2020-1-4900 - Auditorium Joliet Curie, UCLab 17:05 - 18:00	2020-1-4900 - Auditorium Joliet Curie, UCLab 17:05 - 18:00
09:00	Division 10 - Data Analysis Platform Tania Regimtas E-TEST Oliver Jennrich	2020-1-4900 - Auditorium Joliet Curie, UCLab 17:05 - 18:00	2020-1-4900 - Auditorium Joliet Curie, UCLab 17:05 - 18:00
09:00	Collaboration Board 2020-1-4900 - Auditorium Joliet Curie, UCLab 17:00 - 18:00	ISE workshop: Recycling cavity design Julia Casanova	2020-Auditorium - Auditorium P. Lehmann, UCLab 17:00 - 18:00

09:00	OSB: Mock Data Challenge 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:00 - 09:25	2020-101 - Salle 101, UCLab 09:00 - 09:55
09:00	Specific Board reports 2020-Auditorium - Auditorium P. Lehmann, UCLab 09:25 - 10:50	
09:00	Coffee break 2020-Auditorium - Auditorium P. Lehmann, UCLab 10:50 - 11:10	
09:00	Specific Board reports 2020-Auditorium - Auditorium P. Lehmann, UCLab 11:10 - 12:05	
09:00	Towards the new Einstein Telescope logs: a journey of discovery 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:05 - 12:30	Susanne Mide et al.
09:00	Conclusions 2020-Auditorium - Auditorium P. Lehmann, UCLab 12:30 - 13:00	Henrik Lueck et al.
09:00	Lunch break 2020-Auditorium - Auditorium P. Lehmann, UCLab 13:00 - 14:10	
09:00	Introduction and open questions 2020-101 - Salle 101, UCLab 14:10 - 14:20	2020-1-4900 - Auditorium Joliet Curie, UCLab 14:15 - 14:25
09:00	Summary of workshop in Glasgow (core optics) Andrew Spencer	Long-term sustainability of research infrastructures Francesca Spagnolo
09:00	Silicon production at IKZ 2020-101 - Salle 101, UCLab 14:25 - 14:45	Labos 1 points: Reducing the environmental footprint of our research activities Melissa POCOL
09:00	ET Pathfinder silicon test mass 2020-101 - Salle 101, UCLab 14:45 - 15:00	CERN's strategy for an environmentally responsible re... Serge Akhmer
09:00	Discussion: Substrate size and absorption 2020-101 - Salle 101, UCLab 15:00 - 15:30	Environmental sustainability in basic research: a perspe... Jacopo Carilli
09:00	Coffee break 2020-101 - Salle 101, UCLab 15:30 - 16:00	The environmental footprint of astronomical research infrastructures Jurgen Knobbeke
09:00	Introduction and open questions + summary workshop (s... Flavio Tassiolo	2020-1-4900 - Auditorium Joliet Curie, UCLab 16:05 - 16:30
09:00	Stress distribution in crystalline silicon blades (part 1) Joris van Heijningen	Coffee break 2020-1-4900 - Auditorium Joliet Curie, UCLab 16:30 - 17:00
09:00	Stress distribution in crystalline silicon blades (part 2) Elva Zenni Appaswamy	The LIGO-Virgo-KAGRA climate change committe... Prof. Daniel Holz
09:00	Welding status report 2020-101 - Salle 101, UCLab 16:40 - 16:55	2020-1-4900 - Auditorium Joliet Curie, UCLab 17:00 - 17:40
09:00	Discussion: periodic meetings swap + core 2020-101 - Salle 101, UCLab 16:55 - 17:25	
09:00	Discussion: how to use these (and other) initiatives for ET? 2020-1-4900 - Auditorium Joliet Curie, UCLab 17:40 - 18:30	

ET Core optics workshop

Sustainability workshop Sustainability: Please return your badges to the LOC. They will be reused!

Structure of the meeting

Not everyone agreed on the necessity of the introductory part.

HL: I liked it - to start with a brief recap of where we are and what we want to do at this meeting.

With a meeting of this size and diversity, parallelism is unavoidable. Uploaded presentations allow us all to follow up on the sessions we missed!

Division 1 - Fundamental Physics Rafael Porto	Upgrade of active and passive atten. Leonardo Lucchesi	Introduction to Sardinia Candidatur Activities Domenico D'Urso
Division 2 - Cosmology Archisman Ghosh	A test facility set-up for characterizati Francesca Spada	Progressing towards the 4D geological characterization of the Einstein Telescope site in Sardinia Dr Luca Cardello
Division 4 - Multimessenger Observ Giancarlo Ghirland...	Novel prototype for the ET Superat Francesco Fidecaro	
Division 5 - Synergies with other GW... Nicola Tamanini	Simulating the Superattenuator with Massimiliano Raz...	Summary of site characterization activities at the Sardinia candidate site for the Einstein Telescope Dr Matteo Di Giovanni
Division 6 - Nuclear Physics Micaela Oertel	HF-TM towers Antonio Pasqualetti	
Division 7 - Stellar Collapse and Isol. Marie-Anne Bizou...	The ET beampipe requirements Aniello Grado	2001-101 - Salle 101, IJCLab 15:00 - 15:40
Division 3 - Population Studies Giulia Cusin	A new real-time control system for n Paolo Prosperi	Review on Sardinia Measurements: d Dr Alessio Fiori
Coffee break	Coffee break	Coffee break
Division 8 - Waveforms Patricia Schmidt	PLaNET Laboratory Luciano Di Fiore	ISB: Parallel session: ET-LF tower Steffen Grohmann
Division 9 - Common Tools Ik Siang Heng	E-TEST Sider Ameer	
Division 10 - Data Analysis Platform Tania Regimbau	E-TEST Rasa Jamshidi	
Collaboration Board	ISB workshop: Recycling cavity desi Julia Casanueva	
1001-1-A900 - Auditorium Joliot Curie, IJCLab 17:00 - 18:00	20010-Auditorium - Auditorium P. Lehmann, IJCLab 17:00 - 18:00	2001-1-101 - Salle 101, IJCLab 16:15 - 18:00

Local authorities welcome talk	Prof. Achille Stocchi
20010-Auditorium - Auditorium P. Lehmann, IJCLab	09:00 - 09:05
Logistics	Dr Florent Robinet
20010-Auditorium - Auditorium P. Lehmann, IJCLab	09:05 - 09:10
ET Collaboration Board report	Eugenio Coccia
20010-Auditorium - Auditorium P. Lehmann, IJCLab	09:10 - 09:30
ET Collaboration: Executive Board report	Michele Punturo et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	09:30 - 09:50
EIB short introduction	Achim Stahl et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	09:50 - 10:05
OSB short introduction	Ed Porter et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	10:05 - 10:20
SPB/SCB short introduction	Domenico D'Urso et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	10:20 - 10:35
ISB short introduction	Jan Harms et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	10:35 - 10:50
Coffee break	10:50 - 11:10
ETO news and updates	Andreas Freise;Freise et al.
20010-Auditorium - Auditorium P. Lehmann, IJCLab	
ET-PP news and updates	Prot. Mario Martinez
20010-Auditorium - Auditorium P. Lehmann, IJCLab	11:30 - 11:45
ETO Project Office	Alessandro Variola
20010-Auditorium - Auditorium P. Lehmann, IJCLab	11:45 - 12:00
ETO Engineering Department	Mr Patrick Werneke
20010-Auditorium - Auditorium P. Lehmann, IJCLab	12:00 - 12:15
ETO Communications	Martine Oudenhoven
20010-Auditorium - Auditorium P. Lehmann, IJCLab	12:15 - 12:30
CERN vacuum pipe results	Carlo Scarcia
20010-Auditorium - Auditorium P. Lehmann, IJCLab	12:30 - 12:45
CERN vacuum pipe planning and perspective	Luigi Scibile
20010-Auditorium - Auditorium P. Lehmann, IJCLab	12:45 - 13:00

Targets achieved...

- Occasion for lots of fruitful discussions
- Lots of progress in many directions
- “Internal” dissemination of the information on progress and the status of the Collaboration and ETO



Re'Em Sari + 5 scientists from



האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

→ 1565 members in the ETMD

+ a Portuguese group expressed interest in joining us...



The total number of FRTEs declared in the ET Member database is **344.45**

- 98 FRTE in ISB
- 76 FRTE in OSB
- 8 FRTE in EIB
- 14 FRTE in SCB

Which fraction of these people is working on current ET needs?
How many FTE is an average FRTE?

The Collaboration is suffering the effects of a rapidly growing phase: The contributions of ET members are unevenly distributed and not verified (yet). We will remain inclusive but will also have to become more selective. Need to define eligibility criteria.

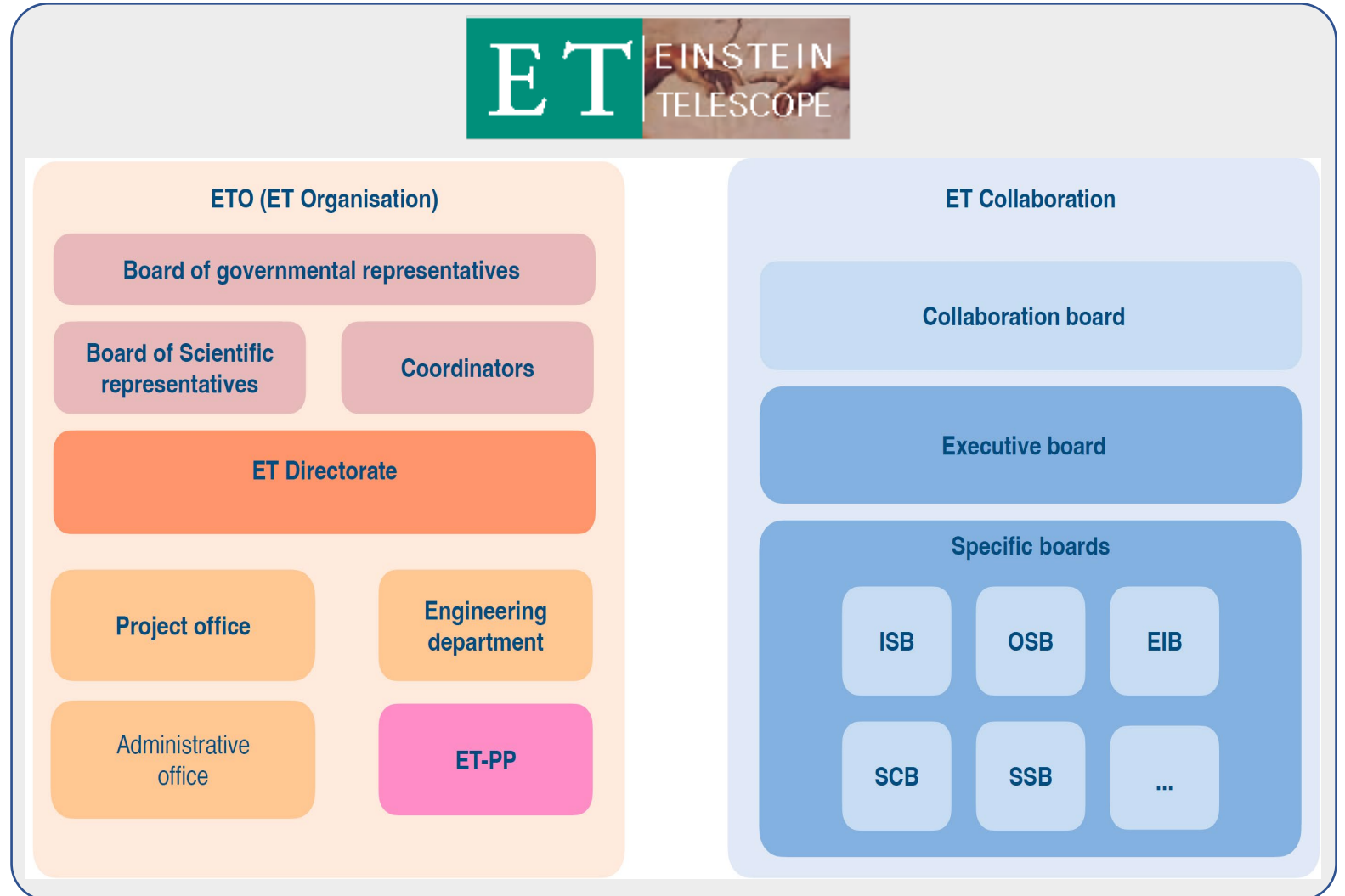
The 2L vs Δ debate (CoBA process) is now entering at many levels:

- ET (as a whole) needs to define and optimise the decisional process (including defining the required information and timescales)
- The ET Collaboration must be a proactive contributor to this process

One ET endeavour!

ET and ETO constructively work together on several levels:

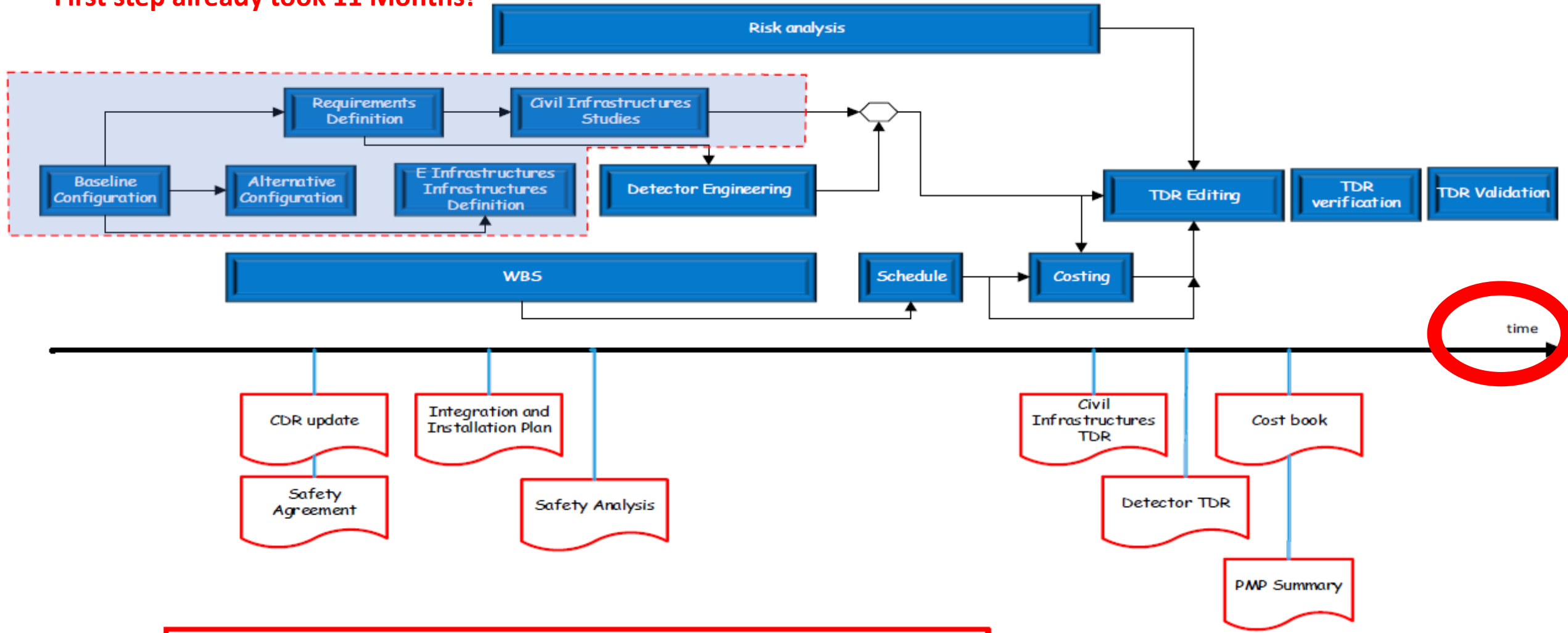
- PBS-2-TDR
- Risk analysis



From PBS to TDR

Steps for PBS have been clarified and clearly communicated
If there are still questions → PO (Alessandro, Alessio)

— **First step already took 11 Months!**



A hot topic!

We need a **Robust, Coherent, Shared Roadmap**

This requires the cooperative effort of many actors:

- ETO
- ET-PP
- Collaboration
- BGR
- BSR
- Other?

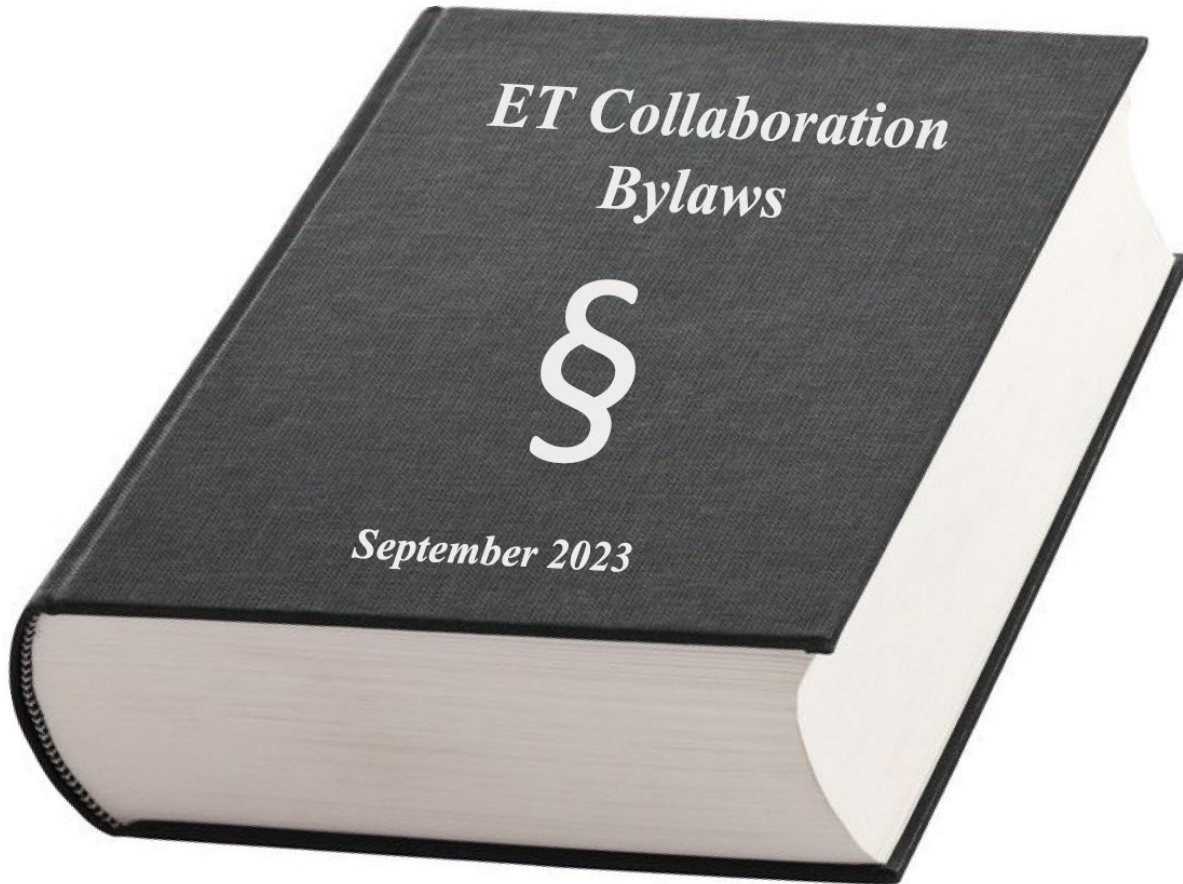
There are (different) boundary conditions for each contributor. These have to be communicated, understood and one common timeline to be developed.

not Outreach...
ET-internal Communication

What are we doing wrong?

We need bidirectional transparency
between all involved bodies
to understand each other's needs!





- We have got the basic Bylaws, but a lot is still missing:
- SSB: [ET Program Committee \(PC\)](#)
[ET Early Career Scientists Support Committee \(ECSS\)](#)
[Member Conduct and Ethics Committee \(EMCC\)](#)
[Speakers and Awards Committee \(SAC\)](#)
[Editorial Committee \(EC\)](#)
[Election, Voting, and Membership Committee \(EVMC\)](#)
[Meetings and Symposia Committee \(MSC\)](#)
[Communications and Education Committee \(CEC\)](#)
[Bylaws Updating Committee \(BUC\)](#)
- Clear mandates, policies and procedures will soon be defined
- No Editorial Committee yet, BUT some light, preliminary publication guidelines in OSB and ISB

The Code of Conduct defines the behaviour of people within the ET collaboration. It is the foundation of the Collaboration.

The ET Collaboration strives for workplaces free from discrimination and harassment. It is the policy of the Collaborations that all members will conduct themselves in a professional manner that is welcoming to all participants and free from any form of discrimination, harassment, or retaliation. Members will treat each other with respect and consideration to create a collegial, inclusive, and professional environment. Creating a supportive environment to enable scientific discourse is the responsibility of all members. Members will avoid any inappropriate actions or statements based on individual characteristics such as age, race, ethnicity, sexual orientation, gender identity, gender expression, marital status, nationality, political affiliation, ability status, or educational background. Disruptive or harassing behaviour of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behaviour and language, unwelcome jokes or comments, unwanted touching or attention, offensive images, unwelcome photography, and stalking. Disruptive behaviour includes instances of disrespect and lack of civility in interactions with colleagues. All members are expected at all times to deal with and address their fellow colleagues with respect and courtesy. This includes

Important workshops in the near future:

- SPB workshop in Amsterdam: 6-7 December 2023
- ET-PP meeting in Barcelona: 11-12 December 2023
- III Annual meeting: Where? When?
- XIV ET symposium, Maastricht: 6-10 May 2024
→ Stefan will tell you...

Einstein Telescope Symposium

6-10 May 2024 - Maastricht, Netherlands



ET-Symposium Event Locations



@MECC; 6-8 May parallel sessions



@St. Jan's Church; 9-10 May plenary Sessions

