

Bid-Book (BB) Updates

B. Garaventa, A. Loi

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ET in Italia: scienza e tecnologia per la
candidatura



Status Updates

- Definition of an editorial team
 - Barbara Garaventa barbara.garaventa@ge.infn.it
 - Angelo Loi angelo.loi@ca.infn.it
 - Luca Latronico luca.latronico@to.infn.it
- Definition of a reviewer team
 - Seth Digel (<https://kipac.stanford.edu/people/seth-digel>)
 - Matteo Spagnolo (<https://www.abdn.ac.uk/people/m.spagnolo>)
 - Ilaria Nardello (<https://eosc.eu/staff/ilaria-nardello/>)
- Old version BB TOCs - [link](#)
- Definition of a new "light" BB index - [28/01/2025](#)
- Communications (on Teams platform)
 - Meetings planned / in progress with WP managers
 - Informations on chapter content / authors involved name
 - Writing activity is ongoing
 - Content updated on a weekly base (direct by authors or revisited by editorial team and collaborators)

Updated BB Index



- Updated index after meetings between WP manager/authors and editorial team (official and suggested)

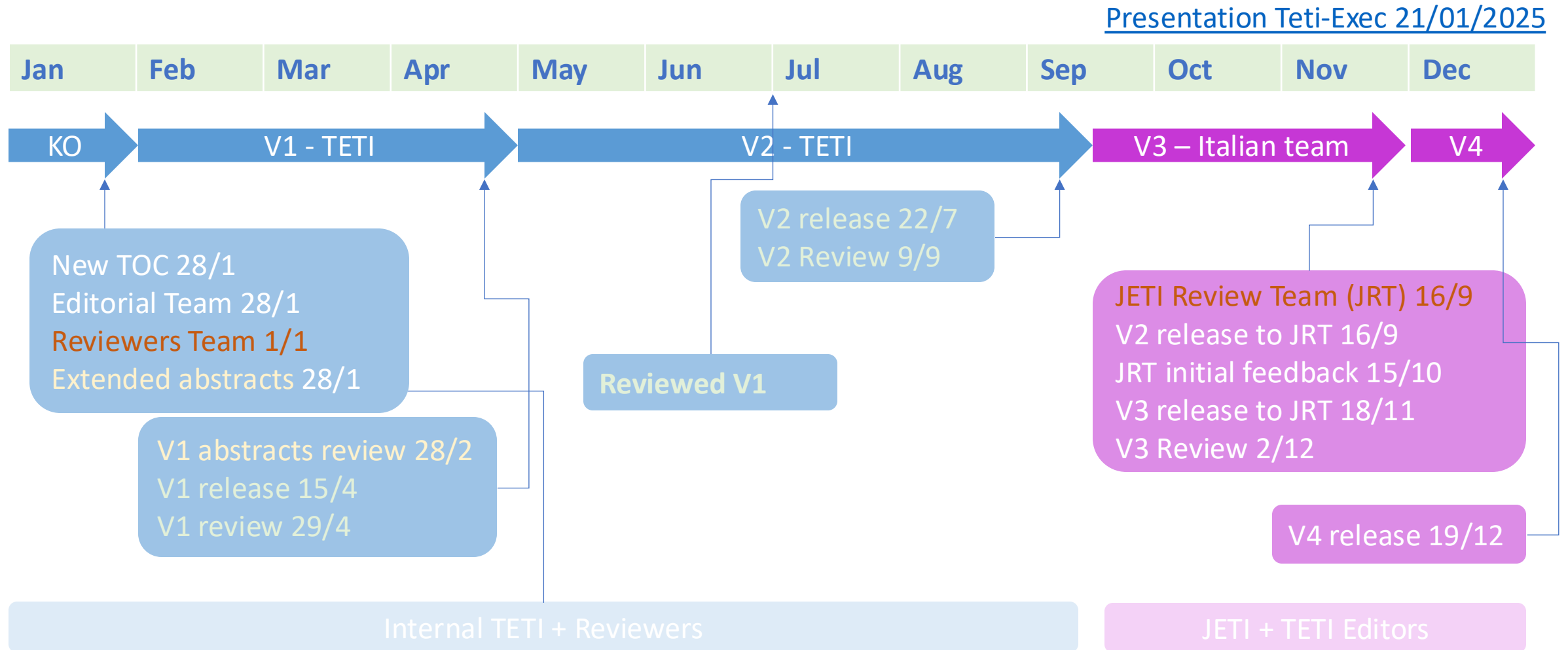
Chapter n.	Title - Contents	Authors
0	Executive summary	0. Editorial Board (B.Garaventa, A. Loi)
1	Introduction: 1.1 The Einstein Telescope Project 1.2 Science Targets of the Einstein Telescope	1.1 M. Punturo 1.2 M. Branchesi
2	Einstein Telescope: A cutting - edge Scientific Instrument 2.1 Description of the Observatory 2.2 ET optical layouts 2.3 Key elements of the ET Detectors 2.4 Data Management	2.1 L. Naticchioni 2.2 A. Perreca, L.Naticchioni 2.3 J. Harms 2.4 S. Bagnasco

Chapter n.	Title Contents	Authors
3	<p>Motivations for the Italian Candidacy:</p> <p>3.1 Technical priorities for the selection of the ET site</p> <ul style="list-style-type: none"> 3.1.1 Geophysical characteristics (low noise levels, ground deformation, background radioactivity, meteo and climate, local and regional seismicity) 3.1.2 Geological conditions (Geological characterization; Geodynamic and tectonic context; Morphostructural setting; 4D site characterization strategy; Hydrogeology/underground water resources) 3.1.3 Geotechnical features of the site (Mechanical properties of the Rocks; Slope stability and subsidence) <p>3.2 A sustainable Environmental Impact on Operativity and Maintenance of ET</p> <ul style="list-style-type: none"> 3.2.1 Topography and terrain 3.2.2 Infrastructure and utilities 3.2.3 Emission and waste 3.2.4 Soil and water pollution 3.2.5 Indirect environmental impact: land use changes 3.2.6 Impact on biodiversity 3.2.7 Climate change 3.2.8 Environmental impact mitigation strategies 3.2.9 Environmental impact monitoring 3.2.10 Environmental benefits for communities 3.2.11 Compliance with environmental regulations <p>3.3. Additional elements supporting the Italian candidacy</p> <ul style="list-style-type: none"> 3.3.1 Scientific leadership and research Infrastructures in Italy (e.g. INFN, INAF, Universities, etc.) 3.3.2 Italy's experience with Virgo 3.3.3 Leveraging Italian Industrial expertise 	<p>3.1 INGV + Cardello</p> <p>3.2 DICEA</p> <p>3.3 Editorial Board (support from D'Urso and Punturo)</p>

Chapter n.	Title - Contents	Authors/ References
4	The preliminary ET Italia Design: 4.1 Topography and Geology (RS) 4.2 Design of civil and technical infrastructures (RS) 4.3 Benefits for the community from/to the Italian site 4.3.1 Economic, Social and Regional Benefits (Guiso, V. Cianniello, V. Cannas) 4.3.2 Benefits for the scientific community	4.1 Bianchi, Bonesso, Capoccia 4.2 Bianchi, Bonesso, Capoccia 4.3 Guiso, Cianniello, Cannas
5	An efficient governance for ET 5.1 ET as an intergovernmental organization (IGO) 5.2 Construction Governance framework 5.3 Transition to Operations and Handover Procedures 5.4 Governance Structure for Operations 5.5 Stakeholder Communication 5.6 National regulations 5.7 Continuous Improvement - Feedback and Review	5.1 M. Bossi, INAF, INGV 5.2 M. Bossi 5.5 A. Varaschin 5.3, 5.4, 5.6, 5.7 M. Bossi

Chapter n.	Title - Contents	Authors/ References
6	<p>Risks and costs</p> <p>6.1 Costs</p> <ul style="list-style-type: none"> 6.1.1 Introduction on methodology and contributions 6.1.2 Instrument 6.1.3 Infrastructure Construction Costs <p>6.2 Risks</p> <ul style="list-style-type: none"> 6.2.1 Technical risks 6.2.2 Economic risks 6.2.3 Planning risks 6.2.4 Safety risks during the construction of ET 6.2.5 Safety risks during the exploration of ET 6.2.6 Legal risks 6.2.7 Environmental risks 6.2.8 Organisation risks 6.2.9 Other external risks 	<p>6.1 Editorial Board</p> <p>6.2 L. Latronico, A. Loi</p>
7	<p>Conclusions: Key advantages supporting Italy's Candidacy and Future impact on Global Scientific Research</p>	<p>Editorial Board (B.Garaventa, A. Loi)</p>

Italian proposal (aka Bid Book) - Roadmap



Incoming activities / Next steps

- The Editorial Team will produce V1 (April/May 2025) with the content received
 - Request: receive missing contributions from authors by March

- "Final" version of V1 for July 2025 will be produced
 - Target: INFN Director taskforce