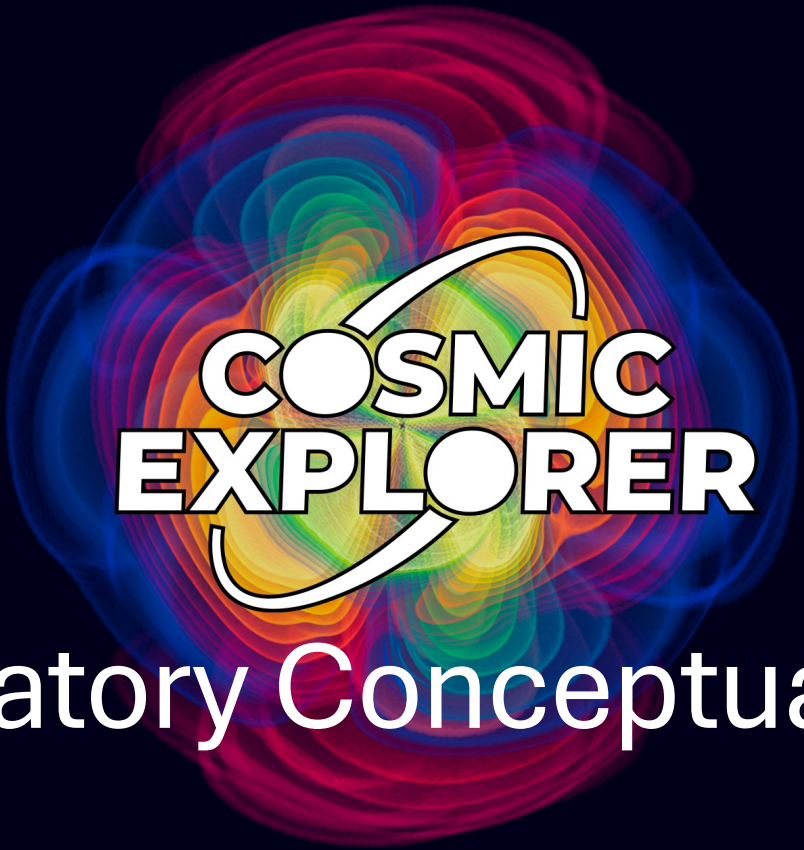


The Cosmic Explorer logo is centered on the slide. It features the words 'COSMIC' and 'EXPLORER' in a bold, white, sans-serif font. The 'O' in 'COSMIC' and the 'O' in 'EXPLORER' are replaced by white circles. A white, stylized orbital path or swoosh curves around the text. The background of the logo is a colorful, swirling nebula or galaxy in shades of blue, purple, red, and yellow.

**COSMIC
EXPLORER**

Observatory Conceptual Design

Joey Shapiro Key
for the Cosmic Explorer Project



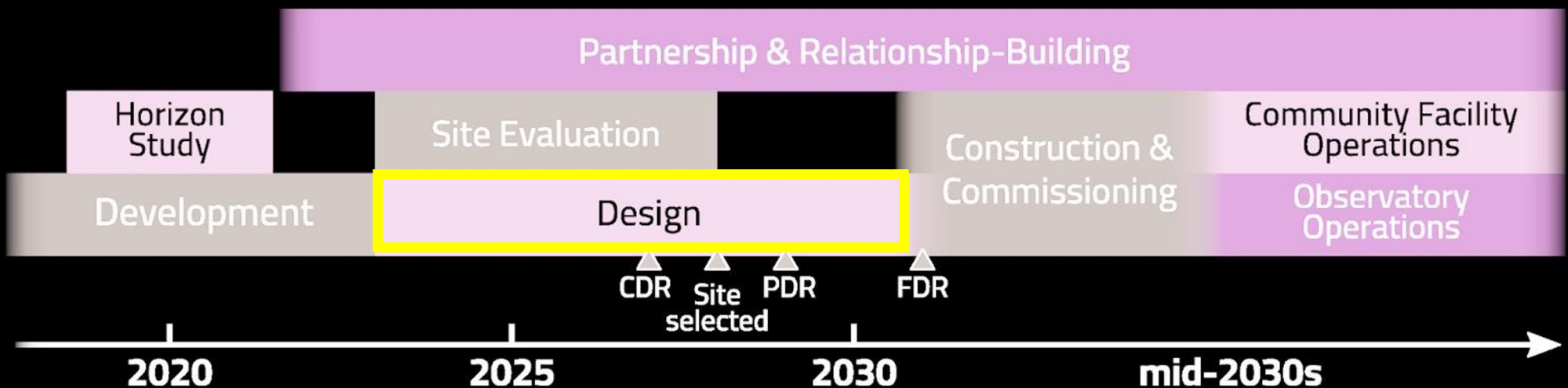
Cosmic Explorer Conceptual Design

Cosmic Explorer Project Design Phases

Conceptual Design (3+years)

Preliminary Design ~\$75M (2-3 years)

Final Design ~\$100M (2 years)





Cosmic Explorer Conceptual Design

- Science traceability
- Facility design
- Detector design
- Systems engineering
- Computing design
- CE Project Office
- Partnership and relationship building
- Site evaluation and initial report
- Project evaluation and consulting

We acknowledge that we are responsible for the manner in which we do science and for the impacts it has on the land and its peoples.





Cosmic Explorer Observatory Sites

An Interdisciplinary Site Suitability Analysis for Cosmic Explorer (Bristol)

Site Identification and Evaluation for Cosmic Explorer (Datrier)

Indigenous and Place-based Partnerships and Responsible Siting

- Community visits
- *Cosmic Explorer: An Introduction for Tribes*
- CE Project IPP-RS guest speaker series





Cosmic Explorer Consortium

The Cosmic Explorer Consortium is intended to **organize and represent the broader Cosmic Explorer community**, including scientists across related fields, technical and nontechnical contributors to the Cosmic Explorer Project, people working with Cosmic Explorer, and other interested parties.

Membership in the Cosmic Explorer Consortium does not preclude membership in the Cosmic Explorer Project **or in other collaborations**.

Members are **encouraged to collaborate with each other**, as well as scientists outside the Cosmic Explorer Consortium, on projects related to Cosmic Explorer. **Commitment to specific Scientific Collaborations is not required to join the Cosmic Explorer Consortium.**

Cosmic Explorer Consortium Objectives



1. Bringing together the scientific, technical, individual, interpersonal, cultural, and systems expertise needed for the development and effective use of Cosmic Explorer.
2. Facilitating the contribution of talents and perspectives from across the astronomy and physics community to Cosmic Explorer's science and technology.
3. Supporting equitable participation in creating, and equitable access in using, the knowledge, infrastructure, and innovations that result from Cosmic Explorer.
4. Working to ensure responsible and fair allocation of necessary and available Consortium resources across people, processes, and priorities.

Cosmic Explorer Consortium Activities



Consortium activities will include, but are not limited to:

- coordinating regular Cosmic Explorer Science calls and organizing meetings, workshops, conferences, and schools related to the activities of the Consortium,
- contributing to detector technology and science case development for Cosmic Explorer; communicating the potential of Cosmic Explorer through community participation and white paper contributions,
- moderating and maintaining the Cosmic Explorer Consortium mailing list to share announcements, scientific news, and other items of community interest.

Cosmic Explorer Consortium Activities



monthly science calls: *cosmicexplorer.org/sciencecalls*

- alternating times (Europe friendly and Asia/Australian friendly)

- 2 x 25m presentations per call, usually recent CE-related papers or works

- occasional presentations from the CE Project

- any Consortium member can fill a request for a slot

science traceability matrix working groups

neXt-Gen Collaborative Design (XGCD) with ET

- started in January this year

- ~every other month 1.5h long meeting on instrument topics of common interests for ET and CE

Cosmic Explorer Consortium Membership



You are invited to join!

cosmicexplorer.org/consortium

550+ members

CE Consortium membership does **not** come with any FTE commitment

The CE Consortium is currently steered by a volunteer team. A future elected governance structure is outlined in the CE Consortium document. The volunteer team will host elections and transfer leadership to an elected team when needed.

Cosmic Explorer Project Office



Directors' Office

- Executive Director
- Director of Land and Community Partnerships
- Director of Personnel and Organizational Development
- Director of Observatories and Facilities
- Director of Observational Science

Project Office

- Project Administration
- Observatory System Leads
 - Site and Infrastructure
 - Vacuum Systems
 - Detector Subsystems
 - Observational Analysis
- Safety and Security

Business Office

- Head of Business
- Director of Human Resources
- Deputy Director of Human Resources
- Head of Environment, Health, and Safety
- Head of Operations Planning
- Head of Cyber-Infrastructure and Computing

Communication Office

- Director of Communication and Education
- Education and Community Outreach Officer
- Communications Officer
- Government Relations Coordinator
- Tribal Relations Coordinator

Operations Office

Science Coordination

Project Advisors

CE Consortium

CE evaluation and consulting focus areas

Cosmic Explorer project evaluation and consulting focuses on:

- **Inclusiveness:** valued contributions, sense of belonging
- **Mentorship:** current experiences, supports needed for mentors and mentees
- **Professional development:** new skills and knowledge, career advancement
- **Organizational efficacy:**
communication, structure, interactions with consortium,
international collaboration, shared vision
- **Indigenous and Place-based Partnerships & Responsible Siting**



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Evaluation data collection strategies

- Demographic and engagement survey of **CE Project** members
- Demographic and involvement survey of **CE Consortium** members
- Interviews of **CE Project** members
- **Pulse surveys** for workshops and professional development activities

Data briefs, reports, and recommendations shared with participants

Discussion with participants and responses from management team



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Select recommendations from CE Project data

- Cultivate commitment to equitable communication and collaboration
- Prioritize in-person engagement opportunities to build relationships and trust
- Create intentional support for new and/or early career Project members
- Provide structures, training, and resources to enable effective mentorship
- Increase role clarity and provide opportunities for role-related skill development
- Strengthen communication horizontally (across working groups) and vertically (from Project leaders)
- **Keep operational goals realistic and flexible, in alignment with staffing and organizational capacities**



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Cosmic Explorer Observatory Sites



Up next: complementary work to identify CE sites

An Interdisciplinary Site Suitability Analysis for Cosmic Explorer (Bristol)

Site Identification and Evaluation for Cosmic Explorer (Datrier)

