

PHASING

A PHASED APPROACH FOR SUCCESSFUL IMPLEMENTATION

The scale and scope of the proposed comprehensive program requires a carefully phased approach to implementation, outlined via draft timelines (**Figures P-1 and P-2**).

PHASE 0 | Through activities supported by the SZ4D RCN, SZ4D has already largely completed **Phase 0**, including:

- Developing this Implementation Plan,
- Identifying available data that address the scientific themes and data gaps that need to be filled,
- Scoping the necessary technical developments and scientific workforce needs, and
- Developing an SZ4D-specific approach to capacity building based on belonging, access, justice, equity, diversity, and inclusion (BAJEDI) principles.

PHASE 1 | Detailed experiment designs and analytical protocols, technology, and facility and data center support will be developed to meet later scientific needs while SZ4D simultaneously pursues pilot reconnaissance-level field efforts and modeling activities. We also anticipate the initiation of a Science Program and program of Community Engagement during **Phase 1**.

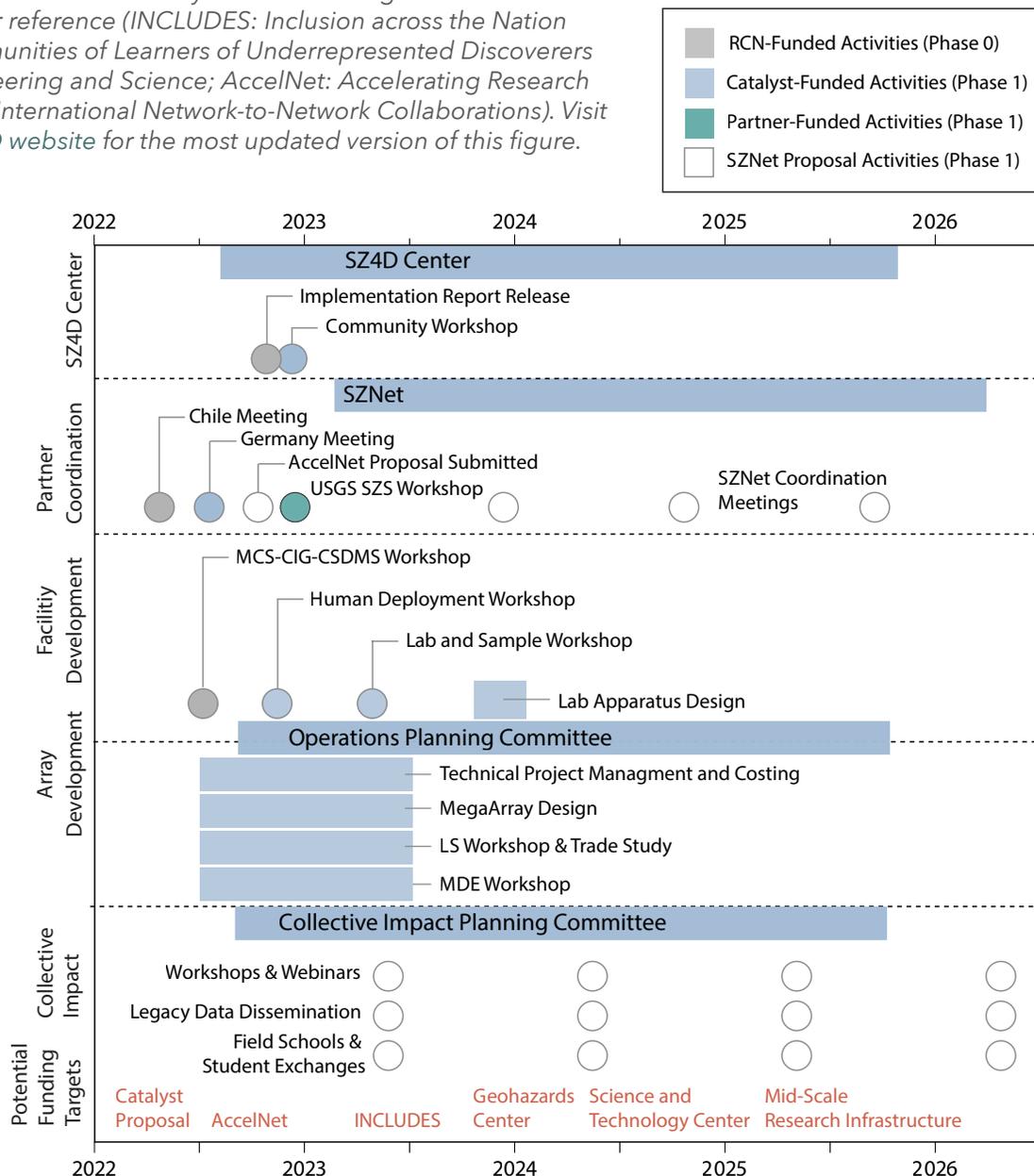
PHASE 2 | Decadal-scale field campaigns (Arrays) will be conducted, with support from the SZ4D facilities and data center, to collect the comprehensive observations needed to analyze subduction systems and their geohazards. The arrays will be complemented by and coordinated with decadal-scale field efforts. The arrays will also be guided by, and in turn guide, model development and laboratory research. A Science Program will support specific and synthesis research activities in coordination with a program of Community Engagement.

PHASE 3 | Final results from all SZ4D activities will be analyzed and synthesized and reported to the community through peer-reviewed publications and SZ4D reports.

Funding milestones largely drive the timeline for transition between phases. Successful funding for implementation of the full infrastructure program will mark the transition into **Phase 2**. The transition to **Phase 3** will occur ten years or more after the start of **Phase 2**.

Major categories of activity in **Phases 1-3** include Facility Development and Operation, Data Management, Community Infrastructure/Arrays, Community Field Efforts, Science Program Activities, and Community Engagement. A list of specific activities under each category is illustrated in **Figure P-2** (additional details can be found in **Chapters 2 and 3**).

Figure P-1. Timeline of Phase 0 and 1 activities for SZ4D Implementation. Potentially relevant funding solicitations noted for reference (INCLUDES: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science; AccelNet: Accelerating Research through International Network-to-Network Collaborations). Visit the SZ4D website for the most updated version of this figure.



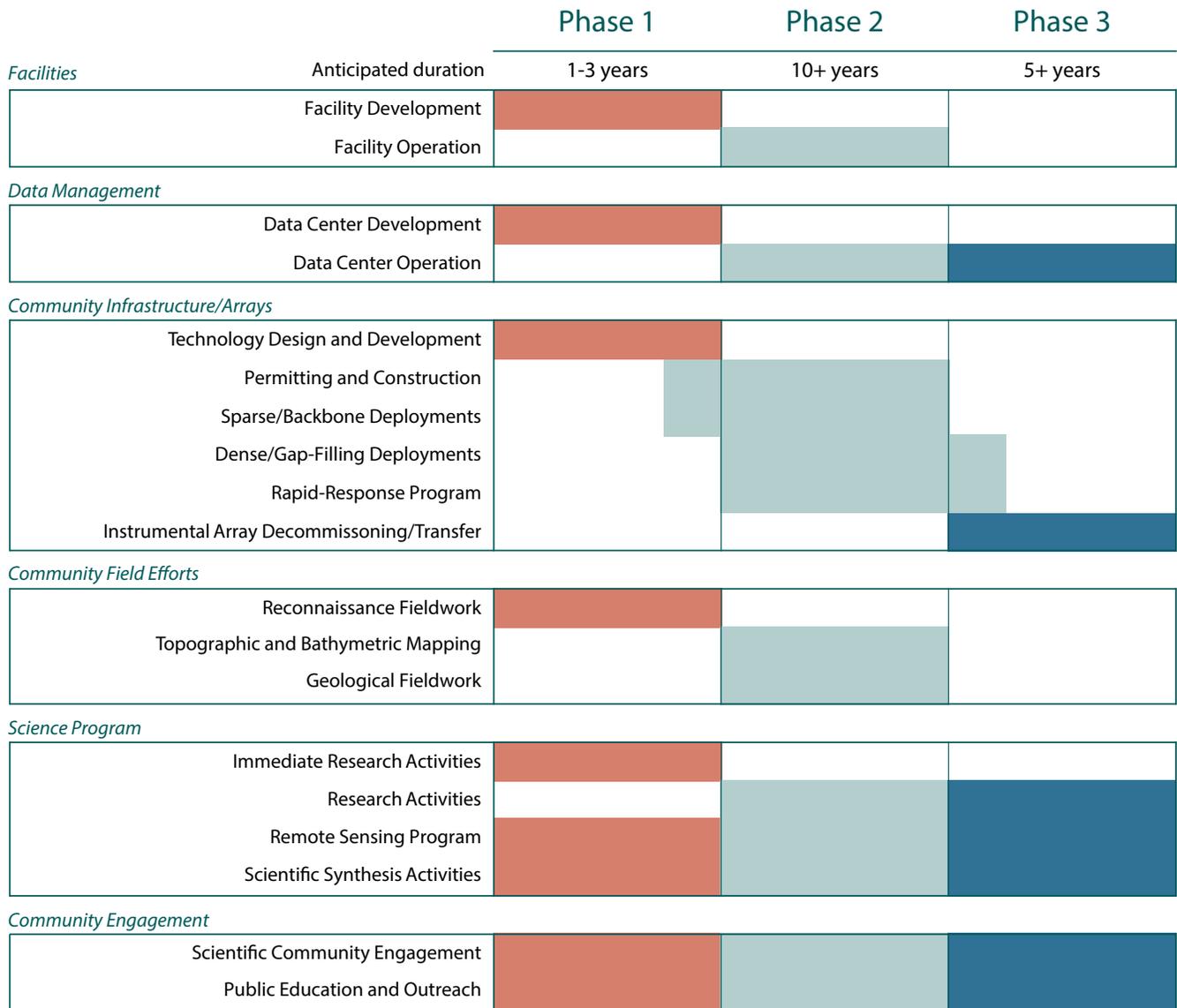


Figure P-2. Timeline of major activities in SZ4D Phases 1-3. See this chapter and chapters 3 and 4 for additional details.