Initiatives

An organizational structure proposal
based on the findings of the East Coast Town Hall

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STEP East Coast
Town Hall Report

A Sustainable Tools Ecosystem Project Activity
Held at IBM's T.J. Watson Research Center in Yorktown Heights, NY
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The East Coast Town Hall produced a broad set of actionable recommendations for how the STEP Center can **facilitate sustainability in the HPC tools ecosystem**.

What organizational structure should we use to coordinate these activities?

The purpose of this presentation: present **a proposal to divide STEP conceptually into 4 distinct initiatives.**
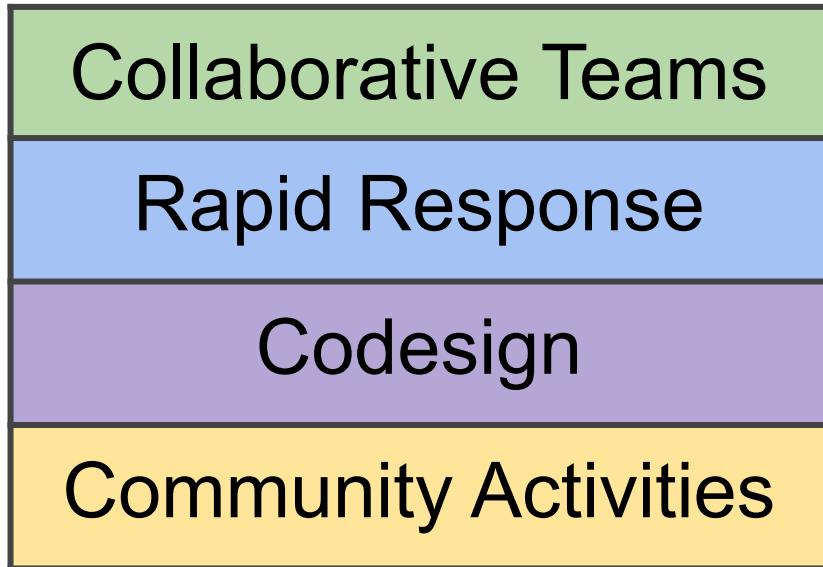
What is a "STEP Center initiative"?

- A **STEP Center initiative** is a management structure within STEP based on a group of ongoing sustainability activities with common organizational needs.
- Purpose: break down activities into logical subsets with a more tractable management scope.
- These initiatives would form the core of our STEP Center activities in 2024.
- Each initiative may require somewhat different time scales, governance strategies, and interactions with external entities.

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What is a STEP Center initiative **not**?

- This is not a finalized plan.
  - **We will refine as we go** based on feedback from this town hall and beyond!
- The STEP Center initiatives are not comprehensive.
  - They focus on core activities that can be bootstrapped immediately and will require ongoing engagement over time.
  - Later in this town hall we will also discuss additional activities that can be spun up when opportunities are available. We also need to explore topics that span initiatives.
- STEP Center initiatives are not a funding level commitment.
  - We need to be prepared for flexibility at this stage.

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Introducing the 4 STEP Center initiatives

Collaborative Teams
Rapid Response
Codesign
Community Activities

- These initiatives were developed collaboratively by the STEP leadership team based on review of the East Coast town hall.
- The remainder of this presentation will attempt to summarize them.
- Exact scope and management mechanisms are TBD; let's talk!

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Collaborative Teams initiative

- In many ways, this is the most conventional of the four initiatives: it is meant to support core activities that address a long-term sustainability issue.
- Why the name "**Collaborative Teams**"? It reflects that most sustainability problems are better addressed through **ongoing collaborative effort to address a shared concern** rather than support for isolated tool projects.
- This initiative would support teams (not exclusive to tool developers) who propose to work together to address a long-term sustainability challenge.

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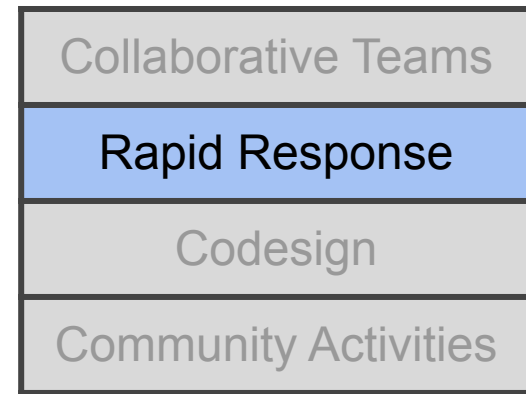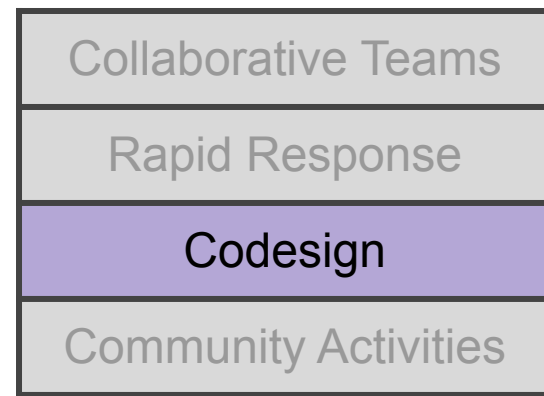ECOSYSTEM PROJECT

Rapid Response initiative

- This initiative is driven by a recurring theme in sustainability discussions: technology needs (hardware, use cases and more) often evolve faster than the corresponding tools that support them.
- We will try to identify and address anticipated changes proactively (*more on that later*), but we cannot anticipate everything.
- We therefore need an **agile mechanism to address unanticipated needs** as they arise, independent of the conventional funding cycle.
- Distinguishing features: lightweight administration, short duration, possibly leading to Collaborative Teams initiative work later.
- Somewhat like "contingency funding", but as a first-class citizen with well-defined and transparent governance.

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Codesign initiative

- This initiative is driven by the observation that we need improve coordination across community stakeholders to truly address sustainability.
- Consists of explicit cross-ecosystem engagement between tool developers and other parties for codesign to address software tool sustainability problems that span the ecosystem.
- Tool developers would work directly with **applications, facilities, vendors, system software developers, and other parties** for joint solutions that **require ongoing multi-party contributions** to achieve.
- Note: this is not completely orthogonal to the "Collaborative Teams" initiative; it may be helpful at this town hall to walk through some examples and models to clarify the distinction.

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Community Activities

- This is driven by the need to facilitate community-wide sustainability activities that are beyond the scope (and the burden) of any one HPC tools team.
- A Community Activity is any center-wide activity that **benefits the community at large and is not well-served by implicit manpower contributions from individual teams**.
- Examples (not exhaustive): representation in standards bodies, hosting center-wide meetings, promoting workforce development, and hosting education events.
- Focus on community sustainability issues that transcend individual projects.

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Cross-cutting goals to keep in mind as we explore initiatives

- **Transparency**: the governance of each initiative should be as transparent as possible to promote fairness and open outcomes.
- **Evolution**: The HPC ecosystem is undergoing rapid change with no end in sight. The STEP initiatives themselves must likewise evolve over time based on *stakeholder input*.
- **Flexibility**: We do not yet know exactly what the call for seed follow-on proposals will look like or what the funding envelope will be. We must be adaptable to different scenarios.
- **Interaction**: The sustainable tools ecosystem does not exist in isolation. We need to identify contact points for interaction with other seedlings, agencies, and programs.

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Significant breakout time will be devoted to "getting this right": refining the scope, activities, and governance of STEP initiatives.

Thank you in advance for your help!

Questions or comments?

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