



HEPCloud Facility Roadmap

HEPCloud Leadership Team

HEPCloud Monthly Facility Board Meeting

June 2020

HEPCloud Board



We recognized that HEP Cloud was broader than just a software development project and needed a higher level of integrated planning across its major thrusts

We wanted to convene a larger group that serve in making broad decision that affect the project and determine it's direction, while also ensuring that there were resources allocated to ensure success.

- HEP Cloud Leadership team
- SCD Department Heads
- Major experiments (CMS, DUNE, FIFE, [Cosmic])

HEPCloud Facility Board

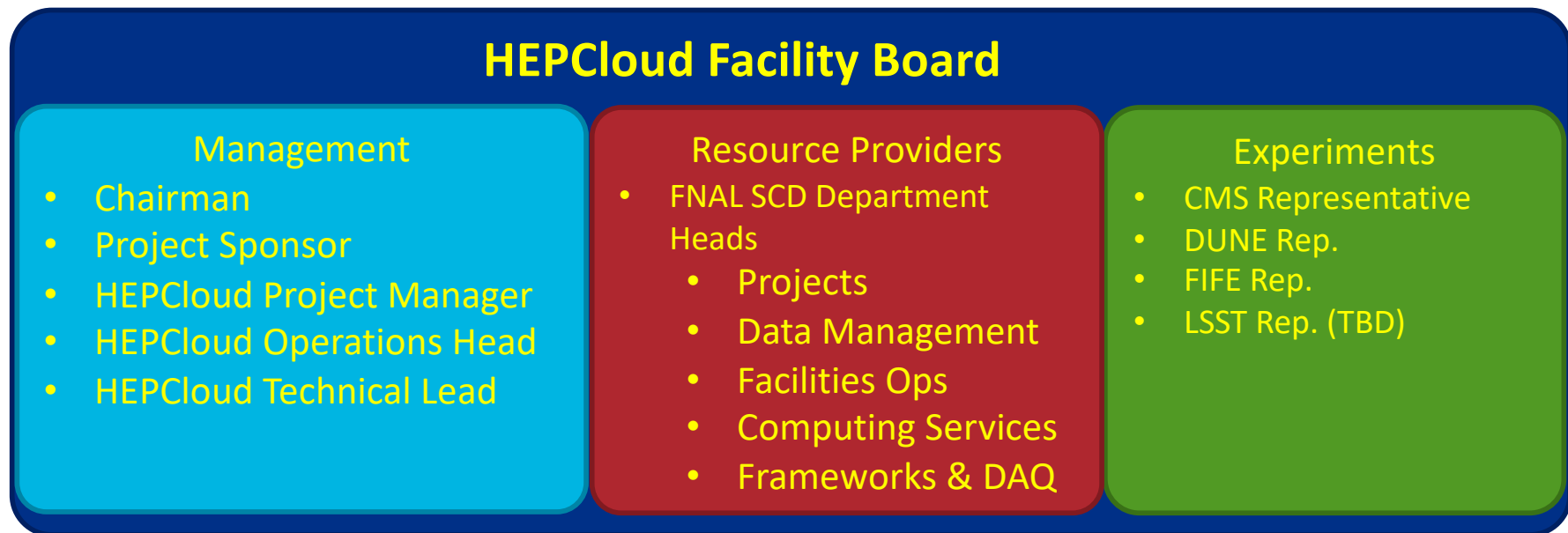
- The Facility Board is designed to be a communications pipeline and decision making forum.
 - It's membership represents all the major components of HEPCloud



Specifically need participation from groups providing the effort and resources

HEPCloud Facility Board

- Membership is currently:



HEPCloud Board's Mission



Your mission (should you choose to accept it)

- Observe and consult on the HEP Cloud facility's activity and progress
- Evaluate and balance requests for effort across HEP Cloud and in context of other activities in your organizations
- Evaluate requests high impact/effort request that are made to HEP Cloud and help in setting ongoing direction and roadmap for the project.
- Assist the HEP Cloud leadership team

Logistics



- The full HEPCloud board will meet once a month on the 1st Monday of the month.
 - This meeting will be primarily to communicating the current and upcoming HEPCloud work
 - For evaluating requests that have been made to HEPCloud that require consideration or may impact the roadmap (i.e. a request from XX experiment for a feature that is non-trivial to implement)
- Monthly Stakeholder meeting will always take place the Wednesday AFTER the board meeting.
- Meetings of a subset of the board (the leadership team + relevant parties) are held weekly.
 - Smaller requests, progress, issues are discussed here.

HEPCloud Road Map

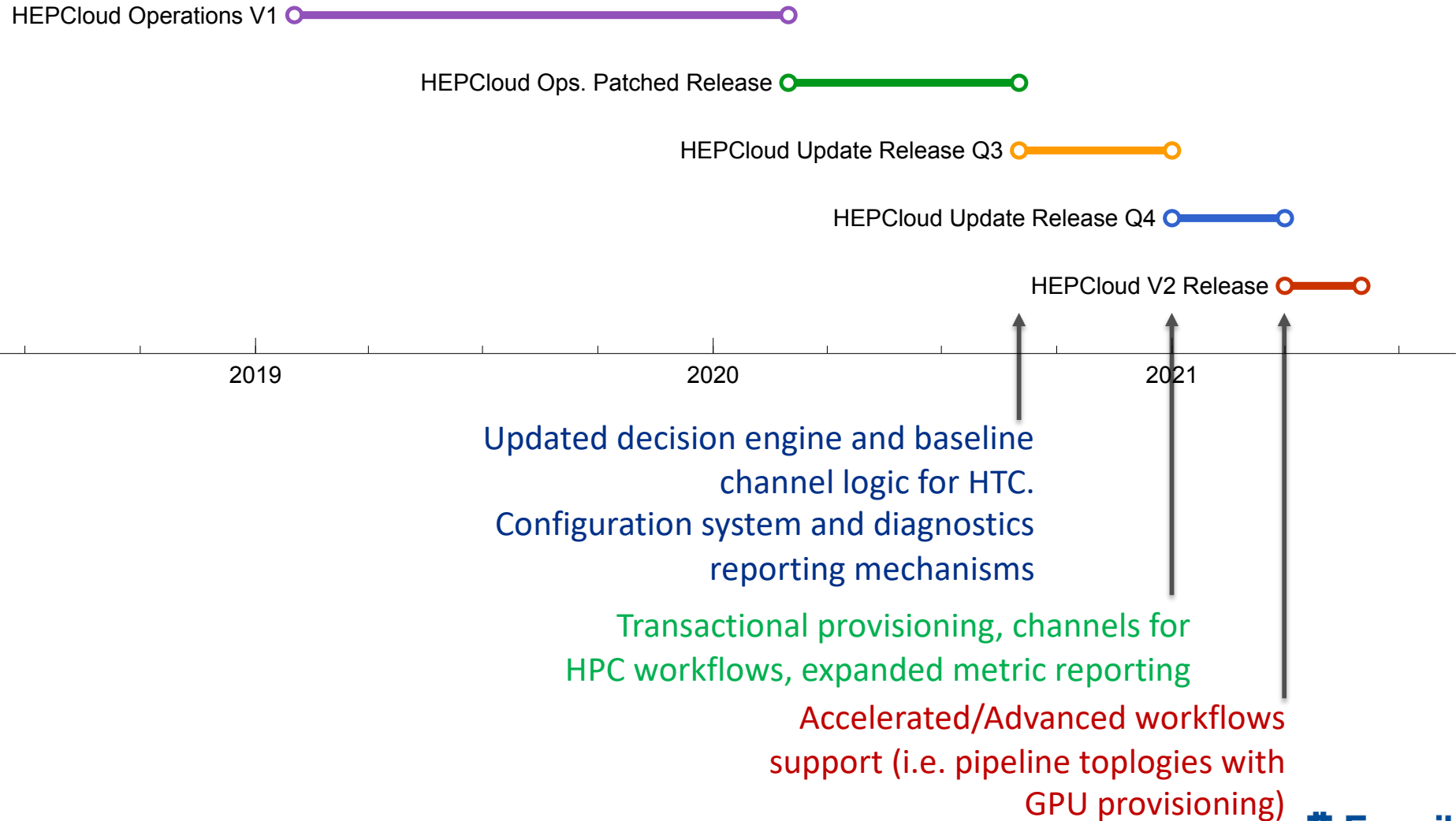


- You will hear in detail today about:
- HEP Cloud Operations
- HEP Cloud Software Development

HEPCloud Release RoadMap



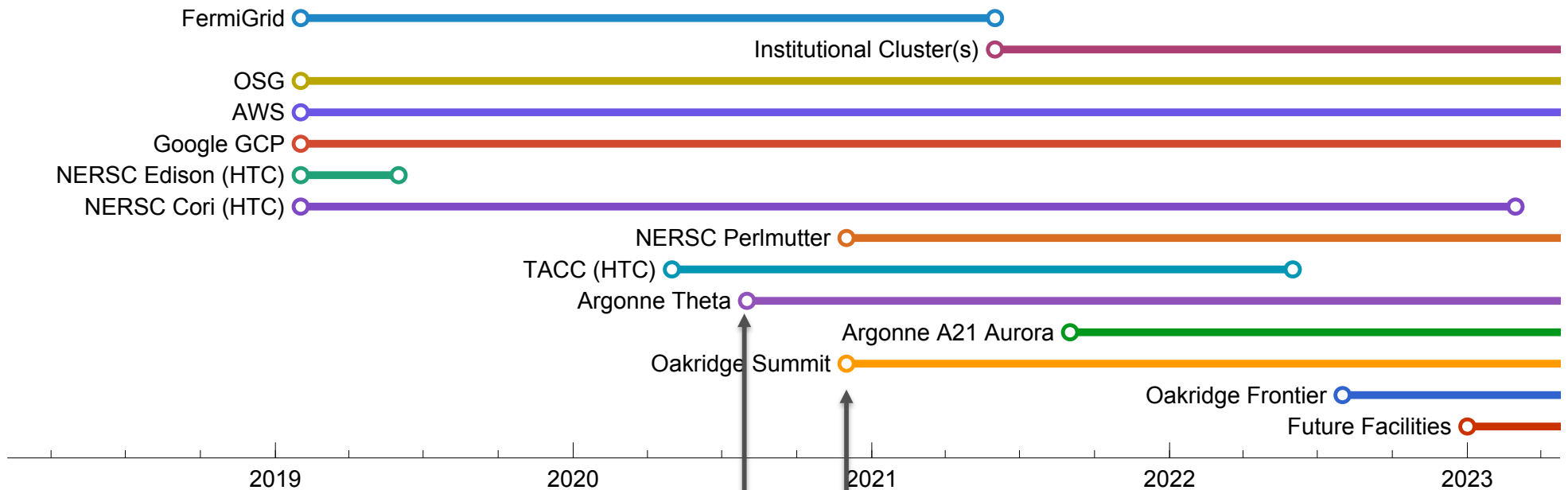
- Operations Releases



Facility Support Roadmap



- Supported Sites and Resources



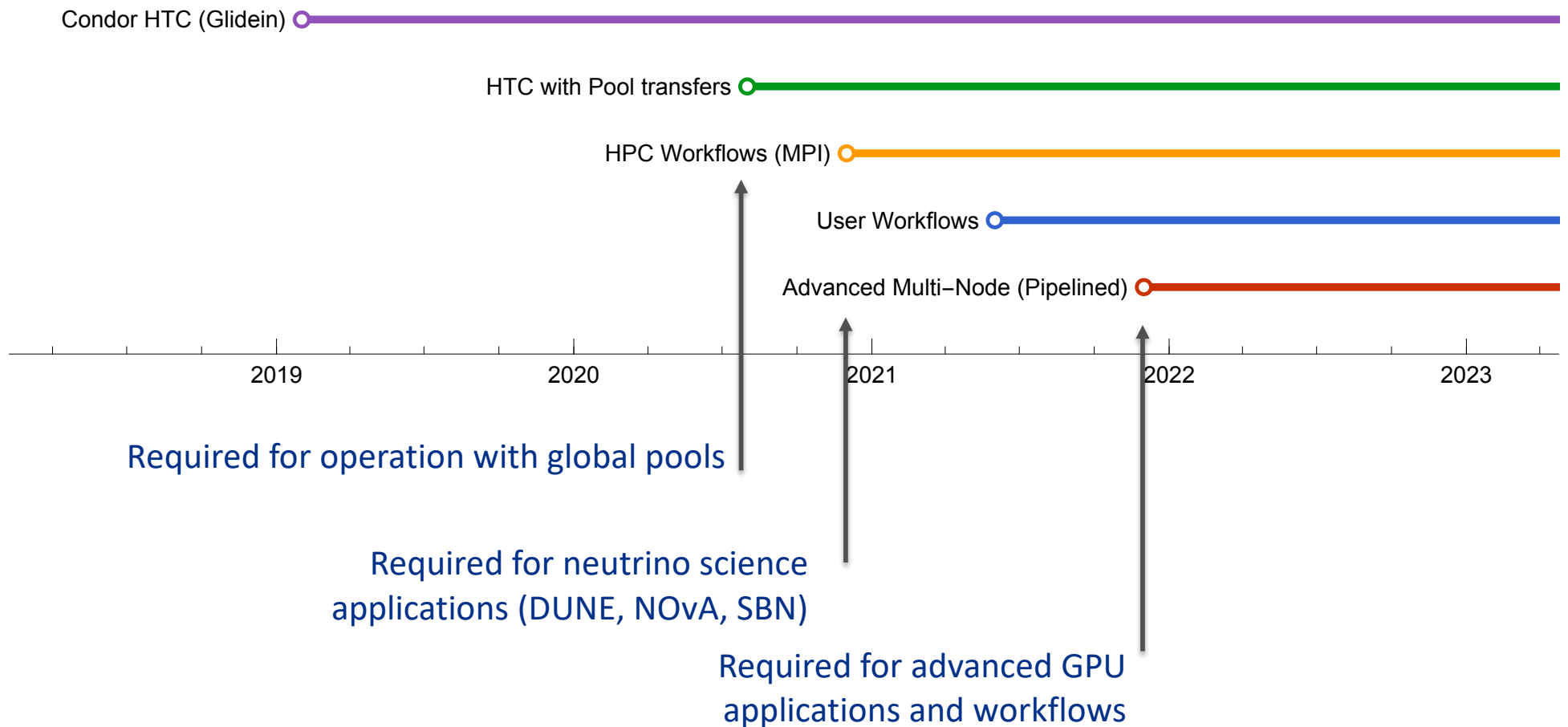
Requires "edge services" implemented by ALCF to bridge network isolation at Theta

Assumes Perlmutter access similar to Cori.
Requires early access for integration (NESAP)

Workflow Support Roadmap



- Evolutions of Workflow Support



Off Road Items

There are number of items which are not included in the original development and integration plans

- Monitoring
 - Internal & Diagnostic Monitoring
 - External site monitoring
 - Summary Monitoring
- Deployment infrastructure and integration with payloads
- New security integration (i.e. token infrastructure?)
- Data storage integration & awareness for provisioning



Next



- We will hear details from Operations and Development
- Then we want to circle back and discuss a number of issues that have come up that we want to have talked about in a larger context

Part II



Requests and Issues

Request Discussion



- CMS Requests monitoring of external sites for **DOWNTIME** events
 - Want a roll up of these events for monitoring
 - Will assist with triage of their workflows
- Monitoring Effort
 - Want to fix existing dashboards
 - Expand to more useful metric reporting for service providers AND for end users.
 - Need to be able to “show” HEP Cloud is doing something

Effort Planning

- Effort for design work
 - Current (and future) design work is needed to match parts of the roadmap. How should we handle this?
 - Specifically “error handling” within the decision engine needs design work. This could be Kyle or others?
- Effort for channel planning
 - Currently Marco M.
 - Need more dedicated effort and people familiar with workflows
 - Overlap with Glidein initially
 - Will require expertise in HPC workflows soon (or tighter integration with MPI aware batch systems)

Other Discussion



- Are there other items that we should discuss?
- What should be presented at the stakeholder meeting?