

Feedback on 3rd Summit of Neutrinoless Double Beta Decay

3rd International Summit on the Future of Neutrinoless Double-beta Decay

26–27 mai 2025
Max Planck Institute for Nuclear Physics
Fuseau horaire Europe/Berlin



Accueil

Ordre du jour

Liste des contributions

Inscription

Liste des participants

Travel Information

Support

✉ anja.berneiser@mpi-hd...



<https://indico.ph.tum.de/event/7802/>

Program = 3 x half day

09:00	<div><div>Welcome at MPIK</div><div>Max Planck Institute for Nuclear Physics</div><div>Jim Hinton</div><div></div></div>	09:00 - 09:10
	<div><div>Neutrinoless double beta decay - Science motivation</div><div>Max Planck Institute for Nuclear Physics</div><div>Carlos Peña Garay</div><div></div></div>	09:10 - 09:40
	<div><div>nEXO - overview</div><div>Max Planck Institute for Nuclear Physics</div><div>Thomas Brunner</div><div></div></div>	09:40 - 10:10
10:00	<div><div>nEXO - discussion</div><div>Max Planck Institute for Nuclear Physics</div><div>Giorgio Gratta et al.</div><div></div></div>	10:10 - 10:40
	<div><div>Coffee break</div><div>Max Planck Institute for Nuclear Physics</div><div></div><div></div></div>	10:40 - 11:00
11:00	<div><div>XLZD - overview</div><div>Max Planck Institute for Nuclear Physics</div><div>Marc Schumann</div><div></div></div>	11:00 - 11:30
	<div><div>XLZD - discussion</div><div>Max Planck Institute for Nuclear Physics</div><div>Daniel Akerib et al.</div><div></div></div>	11:30 - 12:00
12:00	<div><div>NEXT - overview</div><div>Max Planck Institute for Nuclear Physics</div><div>Juan José Gómez Cadenas</div><div></div></div>	12:00 - 12:30
	<div><div>NEXT - discussion</div><div>Max Planck Institute for Nuclear Physics</div><div>Juan José Gómez Cadenas et al.</div><div></div></div>	12:30 - 13:00

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Reports from
Agencies

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14:00	<div><div>Welcome from BMBF</div><div>Max Planck Institute for Nuclear Physics</div><div>Karsten Hess</div><div></div></div>	14:00 - 14:10
	<div><div>Report of International Working Group</div><div>Max Planck Institute for Nuclear Physics</div><div>Nigel Smith</div><div></div></div>	14:10 - 14:40
	<div><div>Report from DOE</div><div>Max Planck Institute for Nuclear Physics</div><div>Paul Mantica</div><div></div></div>	14:40 - 14:50
	<div><div>Report from NSF</div><div>Max Planck Institute for Nuclear Physics</div><div>Allena Opper</div><div></div></div>	14:50 - 15:00
15:00	<div><div>Report from BMBF</div><div>Max Planck Institute for Nuclear Physics</div><div>Patrick Hartmann</div><div></div></div>	15:00 - 15:10
	<div><div>Report from INFN</div><div>Max Planck Institute for Nuclear Physics</div><div>Marco Pallavicini</div><div></div></div>	15:10 - 15:20
	<div><div>Coffee break</div><div>Max Planck Institute for Nuclear Physics</div><div></div><div></div></div>	15:30 - 15:50
	<div><div>Report from STFC</div><div>Max Planck Institute for Nuclear Physics</div><div>Grahame Blair</div><div></div></div>	15:50 - 16:00
16:00	<div><div>Report from NSERC</div><div>Max Planck Institute for Nuclear Physics</div><div>Anne-Marie Thompson</div><div></div></div>	16:00 - 16:10
	<div><div>Report from CFI</div><div>Max Planck Institute for Nuclear Physics</div><div>Mohamad Nasser-Eddine</div><div></div></div>	16:10 - 16:20
	<div><div>Report from IN2P3</div><div>Max Planck Institute for Nuclear Physics</div><div>Marcella Grasso</div><div></div></div>	16:20 - 16:30
	<div><div>Report from CEA</div><div>Max Planck Institute for Nuclear Physics</div><div>Nathalie Besson</div><div></div></div>	16:30 - 16:40
	<div><div>Report from Ikerbasque</div><div>Max Planck Institute for Nuclear Physics</div><div>Fernando Cossio</div><div></div></div>	16:40 - 16:50
09:00	<div><div>LEGEND - overview</div><div>Max Planck Institute for Nuclear Physics</div><div>Susanne Mertens</div><div></div></div>	09:00 - 09:30
	<div><div>LEGEND - discussion</div><div>Max Planck Institute for Nuclear Physics</div><div>David Radford et al.</div><div></div></div>	09:30 - 10:00
10:00	<div><div>CUPID - overview</div><div>Max Planck Institute for Nuclear Physics</div><div>Maura Pavan</div><div></div></div>	10:00 - 10:30
	<div><div>CUPID - discussion</div><div>Max Planck Institute for Nuclear Physics</div><div>Karsten Heeger</div><div></div></div>	10:30 - 11:00
11:00	<div><div>Coffee break</div><div>Max Planck Institute for Nuclear Physics</div><div></div><div></div></div>	11:00 - 11:20
	<div><div>Latest results from KATRIN</div><div>Max Planck Institute for Nuclear Physics</div><div>Markus Steidl</div><div></div></div>	11:20 - 12:20
12:00	<div><div>Closed session for funding agencies</div><div>Max Planck Institute for Nuclear Physics</div><div></div><div></div></div>	11:20 - 12:20
	<div><div>Summary by International Working Group</div><div>Max Planck Institute for Nuclear Physics</div><div>Nigel Smith</div><div></div></div>	12:20 - 12:50

Statement from first JOG meeting (1)

The international funding agencies and laboratory directors who attended the 3rd International Summit on Double Beta Decay (the stakeholders) re-affirmed that the science of neutrino-less double-beta decay remains one of the most compelling and important in contemporary physics. The summit meeting summarised the state of the field, including recent developments in different technologies. The stakeholders congratulate the double-beta community for the substantial progress made since the last summit meeting, in a resource restricted environment.

The stakeholders recognise that the best chance for an unambiguous discovery is an international campaign with multiple isotopes and more than one large tonne-scale experiment implemented in the next decade. Following the 2nd International Summit, a Working Group was struck and charged with exploring possible governance structures to support this objective. The Working Group reported back at this meeting, with a recommendation for a 'hybrid' governance structure to retain flexibility, agility and a forum for maximising impact of available funding.

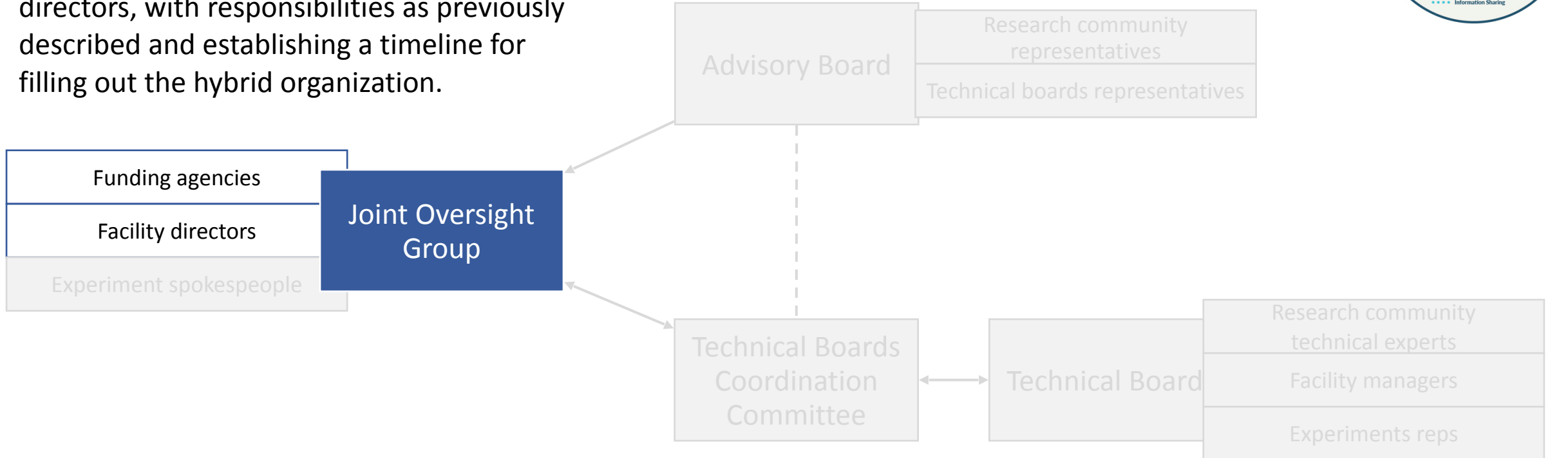
Statement from first JOG meeting (2)

The stakeholders endorse the recommendation of the Working Group, whilst recognising the change in funding environment since the previous summit. It was agreed that the intention is to phase the development of the hybrid governance model. Phase-I is the formation of an initial Joint Oversight Group comprised of interested funding agency representatives and facility directors to ensure a forum for communication and discussion, and, if applicable, coordination by the funding agencies, for deployment of tonne-scale detectors in North America and Europe.

The 3rd Summit meeting closed session on Day 2 was viewed as the initial JOG kick-off meeting where the funding agencies and laboratory directors met under the umbrella of the JOG to discuss the terms of reference and operational mode.

Joint Oversight Group - Phase 1

Initially, the JOG would be the primary forum for convening funders and facility directors, with responsibilities as previously described and establishing a timeline for filling out the hybrid organization.



JOG has been struck

Nigel Smith has been appointed as interim chair

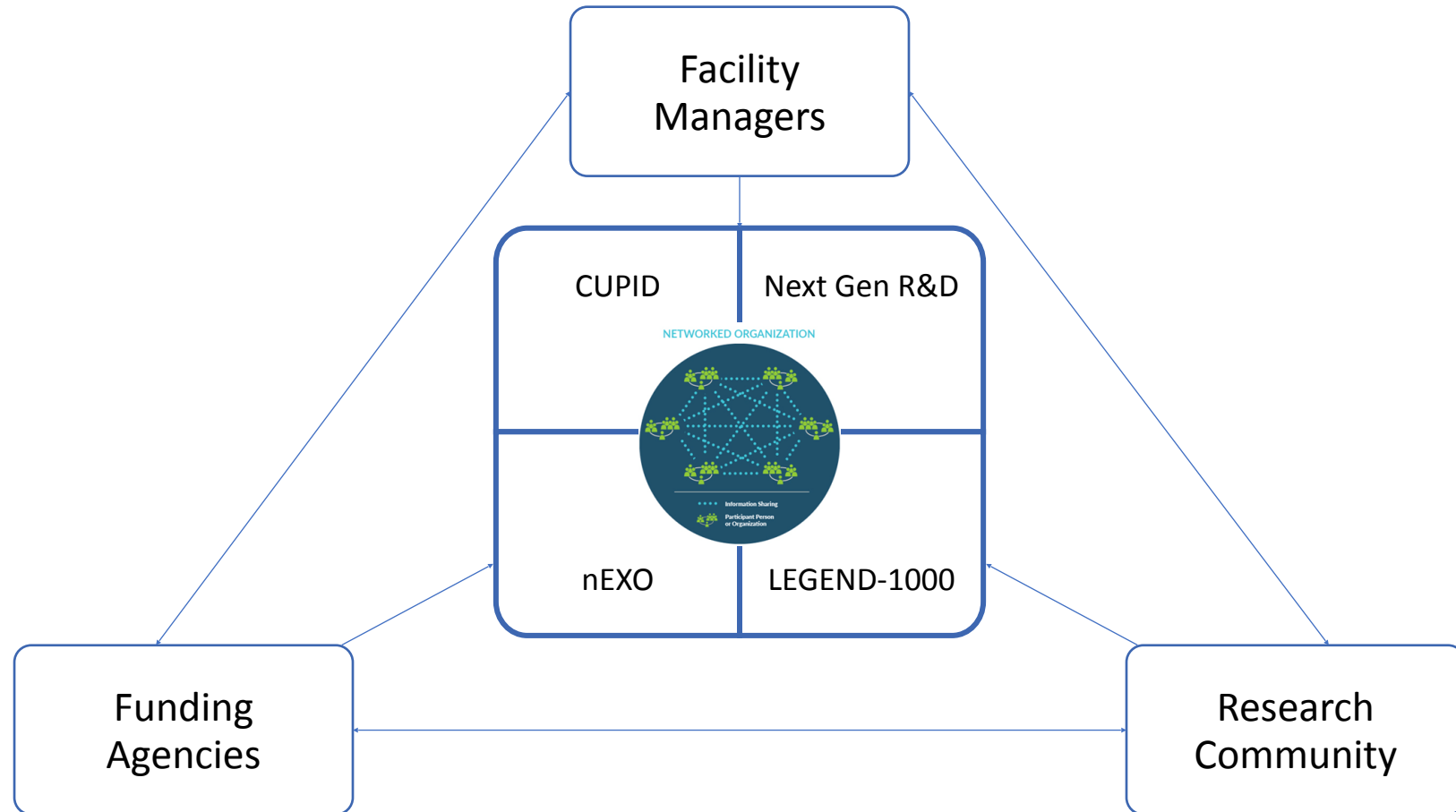
Expanded Working Group will carry forward governance structure within six months

Interested agencies should connect the JOG through the interim chair

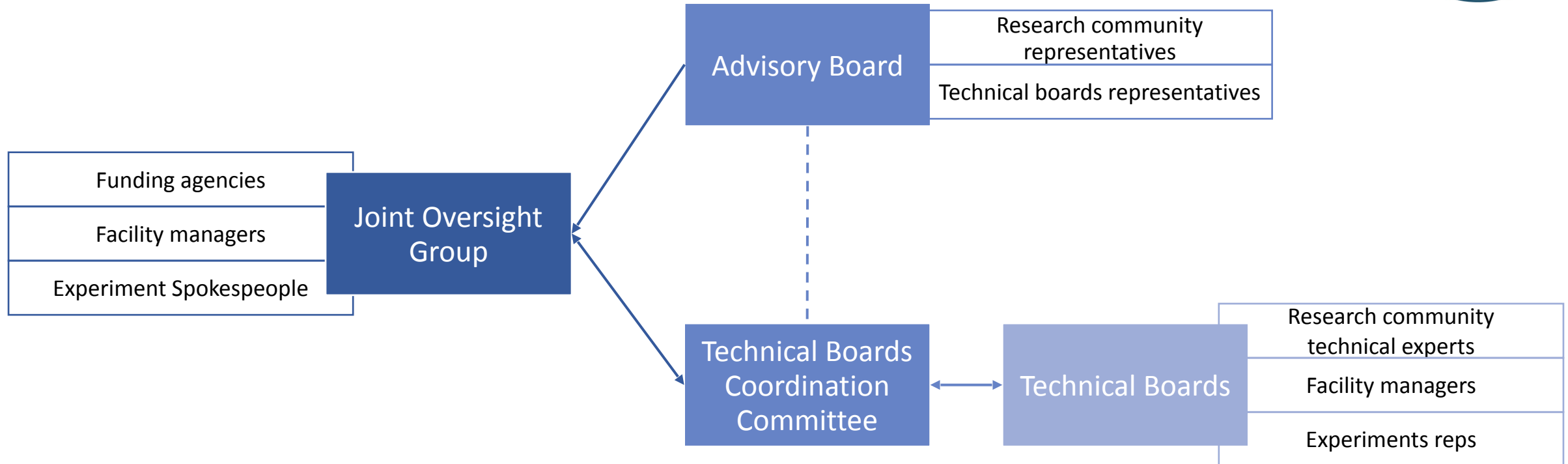
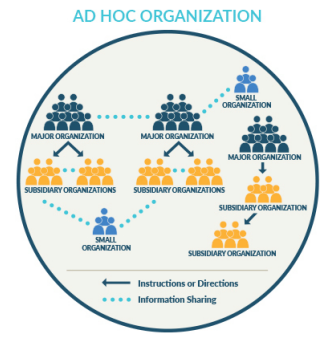
Hybrid Model Slides (WG)

Hybrid Model Stakeholder View: Interconnections

- Stakeholder responsibilities to experiments
 - Funding agencies (define mission and provide resources)
 - Facility managers (host technology and provide resources)
 - Collaborations (address mission and deliver technology)
- Enabling an interconnected network of experiments, funding agencies, facility directors, and collaborators



Hybrid Model Governance: Managing Entities, Stakeholders, and Interfaces



Individual experiments maintain autonomy. Governance model provides “tool” for funding agency coordination.

Joint Oversight Group (JOG): Composition, Roles, Responsibilities, and Authorities

- Composition: funding agencies, facility managers, and experiment spokesperson
 - Propose threshold for funding agencies participation
 - Agencies not meeting threshold could participate as non-voting member of the JOG
 - Threshold for experiment participation?
 - Chair shall be a funding agency representative
 - elected by funding agency reps on JOG, 2-year term, non renewable
- Roles: oversight and coordination/communication
- Responsibilities: appointing advisory board, appointing technical boards coordinating committee chair, charging advisory board and technical coordination committee, devise subcommittee structure as appropriate to carry out authority, allocation of discretionary funds (possibly through a subcommittee composed of funding agency representatives only)
- Authority: funding agencies
- Cadence: meets at least twice per year

Advisory Board: Composition, Roles, Responsibilities, and Authorities

- Composition: research community representatives and technical representatives
 - No less than 10, nor more than 20
 - Appointed by the JOG, 3-year term, non renewable
 - Chair of JOG and chair of technical boards oversight committee would be ex-officio
- Roles: strategic vision, advice and oversight, advocacy and engagement
- Responsibilities: respond to charges from JOG, strategic planning
- Authority: derived from the JOG
- Cadence: at least quarterly

Technical Boards Coordination Committee : Composition, Roles, Responsibilities, and Authorities

- Composition: research community representatives, facility managers, and experiment representatives
 - One representative (chair) from each technical board
 - One representative from each facility, could be delegated by facility managers
 - One representative from each experiment, could be delegated at experiment director
 - Propose that chair is appointed by the JOG, 2-year term, renewable
 - On voting actions, members should recuse themselves from voting on actions that directly impact their technical board, facility, or experiment
- Roles: technical coordination advice and resource management
- Responsibilities: respond to charges from JOG, seek opportunities for resource optimization, including internal and external sources, creation and dissolution of technical boards, charge technical boards
- Authority: derived from the JOG
- Cadence: monthly

Technical Boards: Composition, Roles, Responsibilities, and Authorities

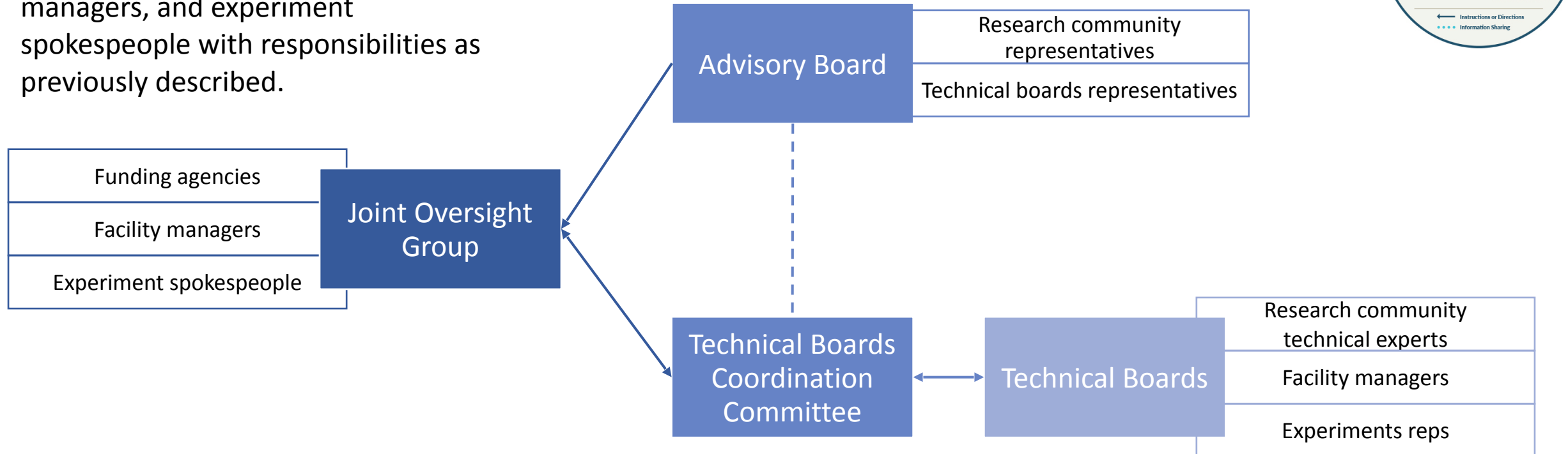
- Composition: research community representatives, facility managers, and experiment representatives
 - Size would be unrestricted, and based on interest
 - Chair elected by participants of the technical board, limited terms
 - Chair would be a member of the technical boards coordination committee
- Roles: innovation and cooperation
- Responsibilities: respond to charges from the technical boards coordination committee, organize workshops, coordinate technical effort of the research community to the benefit of the wider experimental efforts, broaden participation
- Authority: derived from the technical boards coordination committee
- Accountability: to the technical boards coordination committee
- Cadence: as warranted

Optional Resource Review Board: Composition, Roles, Responsibilities, and Authorities

- Option to add a Resource Review Board at part of the Governance Model. This would be implemented through a phased approach, where the RRB would be introduced once project operations begin.
- The amount of discretionary funds available would likely drive the need for an RRB
- Composition:
 - Funding agency representatives
 - Agencies not meeting JOG threshold could participate as non-voting member of the RRB
- Roles: Fiscal and agency coordination
 - Could provide an avenue for “in camera” funding agency discussions
- Responsibilities: incentivize advancement toward the shared goal of timely discovery and to motivate resource optimization.
- Authority: funding agencies

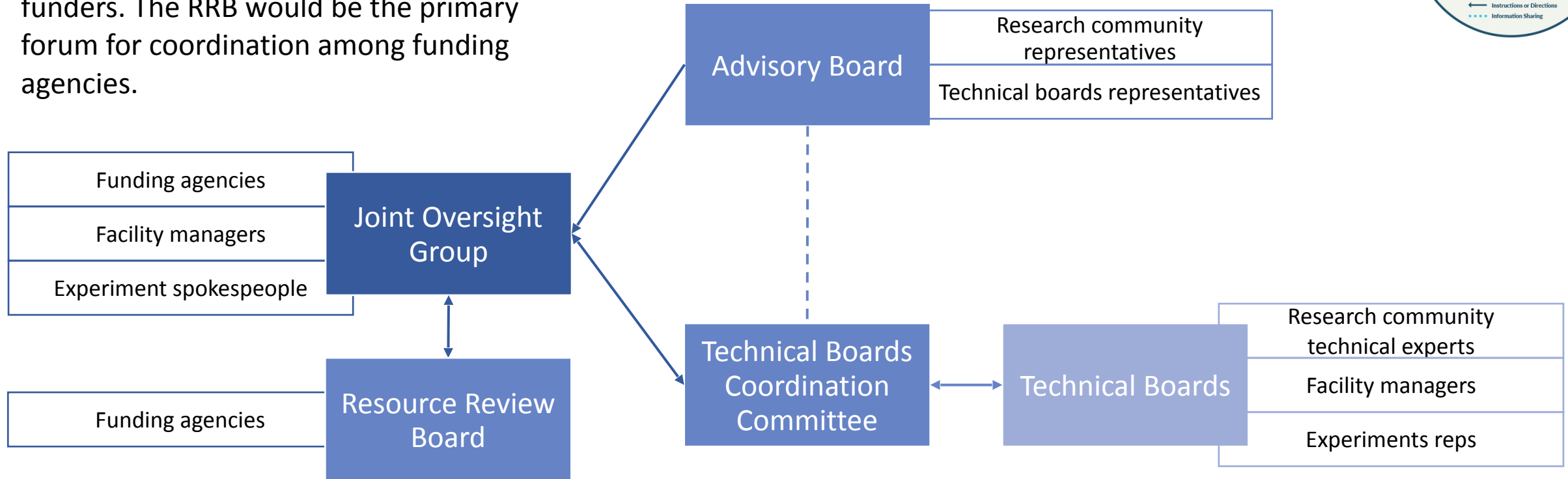
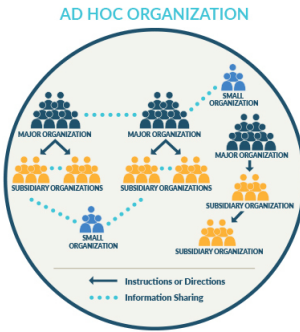
Optional Resource Review Board: Phase 1

Initially, the JOG would be the primary forum for convening funders, facility managers, and experiment spokespeople with responsibilities as previously described.



Optional Resource Review Board: Phase 2

Once the necessity arises, the RRB would be established and comprised of funders. The RRB would be the primary forum for coordination among funding agencies.



The JOG would continue overseeing the Advisory Board, Technical Board Coordination Committee, and other sub-committees that may be established.