

# Status of Follow-up of PAB Recommendations (Position and role of Project Manager, Operations Budget, Access Tunnel at the X-end)

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KAGRA International F2F meeting

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The position and role of Project Manager should be described and shown more clearly in the KAGRA organization chart in the SEMP. In particular, the role of the Project Manager and the Deputy Project Manager to manage schedule and budgets should be clear.

- We agree. We will define the position and role of Project Manager more clearly.
- We agree. So far, the Deputy Project Manager was not clearly visible in the project organization chart.

We strongly recommend that the Executive Office include representatives from all of the main institute/organization collaborating with UT-ICRR, if it has been formalized with official agreement/MOU. In particular, at least one of senior member from KEK should be a member.

 We agree. As of fall 2012, Yoshio Saito (KEK) has been a member of EO.

We recommend that the project consult with other groups who operate remote scientific facilities (other gravitational wave detectors, other facilities in Japan) to understand the basis for their operating budgets, and to create a steady-state operating budget for KAGRA, adapting the information from these other projects as appropriate. This budget should include sufficient staff to maintain and care for a \$150M facilities.

- We appreciate the recommendation very much. We would like to refer this recommendation in the negotiation with MEXT so that we get as much operations budget as possible.
- During the PAB meeting, we heard that there must be at least 7 technical staffs to run the system (together with the scientists taking shifts). We plan to do so.

We recommend that the project consider how operations begin during the commissioning phase of iKAGRA, and that KAGRA develop a ramped profile for the operations budget that provides for those operational expenses that start early. This will prevent valuable construction resources from being diverted to pay for necessary expenses that are really operational costs.

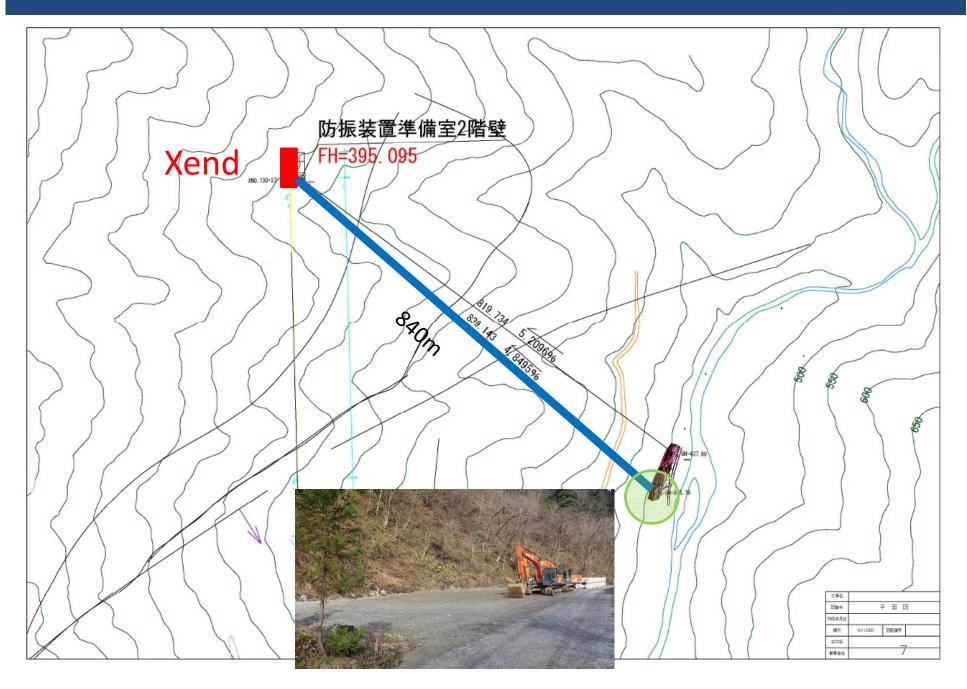
- We will start the planning of the construction and commissioning under the leadership of the project manager, leaders of the contraction and commissioning.
- The operations budget we are requesting has a ramped profile starting in FY2014 and coming to stable in FY2017.

# PAB report:

The PAB notes that the External Review Board had strongly recommended that the access tunnel at the X-end station be restored in the project. We understand that the second access route at the x-end was eliminated because of severe financial constraints, and that funds from different sources cannot be used freely in different technical areas, but we share the concern of the External Review Board about the lack of a second access path.

- We raised the issue of the access tunnel (see the next page) at the X-end (soon after the KamLAND fire) to the Univ. Tokyo administration and to MEXT.
- The cost estimate was ~0.45 B yen.
- Due to the other problem (see the "KAGRA overview" slide), it is impossible to ask to resolve 2 problems at once.
- We have to adopt a doable plan within the available resources. →
   See the last page.

# Planned X-end access tunnel



# Possible X-end plan

