**Mantid project review discussion document.**

The Mantid Project has been developing software for reduction and analysis of neutron and Muon data for 9 years.

In that time the project has grown into an international collaborative effort with contributions from many major neutron facilities.

STFC, ORNL and ESS represent the core partners in the collaboration contributing a considerable amount resource into the project.

Each of the facilities contribute both developer effort i.e. staff that comprise the core development team but also a considerable amount of other resources including instrument scientist time and compute infrastructure.

In total there are ~50 regular contributors to the project, from the partner facilities there are 32 core staff.

As such the project represents a major investment for the partner facilities.

**Objective of the review**

The objective of the review should be to evaluate the project in terms of its output, governance, management, strategic fit and prioritisation. To give advice (against the charge) that should be considered to improve the strategic direction, governance and operation of the project.

A review of the project is timely, in order for it to be successful, and for any reviewer to understand the role and objectives of the project it is essential that the project has a clear (and documented) understanding of why Mantid exists.

To that end I suggest that before we can have a review we should collectively generate a project ‘vision and strategy’ to give whomever undertakes the review a clear understanding of why Mantid exists.

**What should the Mantid Vision & strategy address:**

What is the scientific vision for the collaboration, i.e. what are the key science and facility drivers that make the project beneficial. How we can leverage the project for the benefit of the science programme of the facilities, more than it just being a ‘sum of its parts’

Collaboration is one of our key successes and I think it forms the cornerstone of the project, how do we carry this forward.

What are the key objectives for each facility and how does the project benefit each facility in achieving them.

We must aim to deliver a collaborative vision rather than the sum of ORNL, STFC, ESS (and possibly ILL)

**A proposed format for the document**:

* Software as an enabling technology for the science programme.

What is our collective vision for software in neutron scattering?

Where does Mantid sit in this vision?

* The role of Mantid for the science programme of large-scale facilities.

What are the common areas, where are the differences

What are the priorities now, and in 5-10 years.

* Enabling the user community.

How do we foresee this changing over a 5 – 10 year time scale, what capability does Mantid provide

* How does the collaboration enable curation of strategic assets and IP.

Is Mantid considered a strategic asset, how is it or should it be curated.

* Mantid as a capital strategic investment

In the document the current governance model can be presented.

     The role of the PMB

     The role of the TSC

     The role of the SSC

We should document how we:

* Recourse the project and manage cost
* Engage and manage stakeholders,
* Define and mitigate risk
* Define, prioritise and manage schedule, completion and metricise success.

We should ask the TSC to write a short report on the key technologies used, the development process that would summarise the day to day operation of the project.

The TSC should also describe the way the project deals with:

Development workflow

Code review

Task assignment

Process for implementing new functionality

Technical debt

…

The level of documentation we provide should be enough to allow the review to have the following charge:

1. Does the project vision and strategy match the requirements of the facilities /domain?

2. Does the project represent a sound investment for the domain?

2.1 Does the governance model effectively deliver the strategic objectives?

2.2 Does the project governance have a sustainable path to deliver the objectives?

3. Does the project have the technical breadth and quality to deliver against the objectives?

**Schedule for review.**

Collating the supporting documentation.

Each partner should nominate a responsible to contribute to the strategy documentation.

The process should be time limited to 8 weeks i.e. May 1st.

We should approach suitable people to be on the review committee.

Some ideas from the European side:

**Facility staff**

A Goetz (ESRF)

A. Ashton (DLS)

D. Spruce (MAX4)

T. Otomo (KEK)

Georg Brandl (TUM)

**Users**

A. Rennie (Uppsala)

R. Coldea (Oxford)

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March 11th – April 18th Preparation of supporting documentation

Review date: Q2 or Q3 2016

**The unanswered questions:**

Location & Format.

Location TBD could be f2f though that would be a large cost it may be worthwhile. Equally it could be over VC

Format TBD

I expect the usual presentations / discussion session from relevant parties and a closed session for the review committee should be used.

With the objective of delivering document that addresses the charge.

Cost and budget TBD

Inclusivity, should we ask the other contributors, and prospective partners i.e. ILL to contribute to the this process?