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Dear Professor Newbold

LHC DETECTOR UPGRADE TENSIONING REVIEW 2016 – ATLAS/CMS PHASE II

The LHC Detector Upgrade Tensioning Review 2016 was considered by Science Board at its meeting on 12 December 2016. The purpose of the review was to advise on STFC participation in the ATLAS and CMS Phase II Detector Upgrades and was an update to the 2014 review. The review took into account the outcome of the 2016 Comprehensive Spending Review (CSR), the revised LHC schedule and the CERN ‘scoping’ exercise which defined a cost envelope for the upgrades. Science Board endorsed the review panel’s report and its recommendations.

Science Board welcomed the review panel’s report and in particular, it noted that the review panel considered the LHC detector upgrade programme to be an essential part of exploiting the substantial LHC investment made by the UK and that the UK has a prominent role in the international R&D programme to prepare for the next phase of upgrades for HL-LHC operation. Science Board also noted that the CMS Phase II Upgrade proposal has well defined goals which are aligned with STFC’s strategy and the case made to be scientifically excellent, building coherently on previous R&D in strategically important areas with considerable potential for UK leadership and impact.

Science Board noted the panel’s view that CMS-UK has responded positively to the funding challenges following the 2014 Review, re-evaluating their ambitions and re-aligning activities, and has proposed a significantly more focused programme than in 2014. The panel noted that the collaboration had taken difficult decisions to rebalance the programme within the 2014 planning guideline of 70% of the original funding requested whilst maintaining a technically challenging, interesting and relevant project. The panel noted that further reductions to the programme would result in a significant loss in leadership in strategically important areas and recommends funding the CMS upgrade programme.

Science Board noted the panel’s view that the CMS-UK collaboration has adapted the upgrade programme proposal to fit within the project (“new money”) planning guideline of 70% of the original funding requested in 2014 with no overall increase in Consolidated Grant (CG) (or RAL PPD) effort for CMS-UK over that awarded in the 2015 CG round. It also noted the panel’s recommendation that, following the CSR and confirmation of the continuation of flat cash funding for the STFC core programme, CG staff effort should reflect the level of staff effort awarded to CMS-UK in CG2015 (with flexibility to balance this across operations and upgrade).

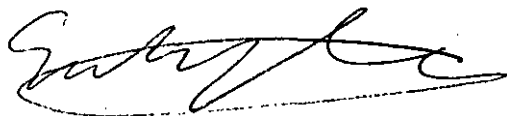


Science Board agreed that the CMS-UK Phase II Upgrade proposal could proceed as submitted to the 2016 review. A Statement of Interest should be submitted to Science Board on that basis. The project should also seek to optimise the use of capital which should be discussed with the Office.

This invitation does not guarantee funding for the project, and any award will be dependent on the outcome of the peer review of a full proposal and the financial scenario subsequent to the STFC Balance of Programme exercise, due to report in February 2017.

Please contact me if you require further information

Yours sincerely

A handwritten signature in black ink, appearing to read 'Sarah Verth', with a long horizontal flourish extending to the right.

Sarah Verth
Programme Manager, Particle Physics