

GridPP's Impact

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BEIS Industrial Strategy 2017

- **Ideas:** *the world's most innovative economy*
- **People:** *good jobs and greater earning power for all*
- **Infrastructure:** *a major upgrade to the UK's infrastructure*
- **Business Environment:** *the best place to start and grow a business*
- **Places:** *prosperous communities*

Why Do We Care

- Because UK Government cares – and thus funding bodies care
 - We are expected to explain how we meet impact agenda
 - Because we need to help the Programs Office – help solve their problems and they will help us to solve ours
 - It helps to raise our profile in STFC
- Because peer review takes impact into account when assessing merit of our work.
 - If we don't play the game panels may get grumpy or even penalise us
- **MOST IMPORTANT !!!!!** Because many of the activities are valuable and/or rewarding in their own right.

Why Me??????

Straw Poll

- Public understanding of science, talks to “general public”, open days,
- Training for young people– eg School Code clubs,
- Supported Work experience, gap year, sandwich students, apprentices
- Briefed or collaborated with suppliers

GridPP Impact Officer at RAL

- Proposed for GridPP6 but “back ported” to GridPP5
- Greg Corbett- Much more modest activity than previous impact officers – (0.1 FTE)
- Key activities/objectives in FY19
 - Help raise profile of impact in GridPP
 - 4-6 Case studies to showcase good work of GridPP
 - Capture some key news stories – link up with SCD impact officer to disseminate
 - Link GridPP up with existing STFC public engagement activities

STFC Strategy: *World-class skills*

As part of UK Research and Innovation, STFC has an important role in training enough people in the UK to maintain the health of our world-leading science and technology and to support a modern industrial strategy.

STFC Strategy: *Building international influence*

Deliver cutting-edge technology programmes to strengthen our world-leading research, the productive exploitation of research facilities and the UK's leadership in advanced technologies.

STFC Strategy: *Inspiring and involving*

Encourage society to value and participate in scientific endeavour, and inspire the next generation to see themselves as the scientists and engineers of the future

CASE Study: CEPH @ RAL

- Tier-1 needed new storage system – chose CEPH
- Large scale deployment in rarely deployed Erasure Coded layout
- Had to address many challenges – working with Open Source community
- Presenting our work at CEPH conferences etc
- Large industrial presence and use of product
- RAL invited to be an Associated Member at the founding of The CEPH Foundation

CASE Study: IPV6 Deployment

- GridPP needed to become IPV6 enabled
- Number of Tier-2 sites very active (particularly IC and QMUL)
- GridPP was the main driver for IPv6 network adoption by Janet-connected sites
- Imperial and QMUL were both awarded Jim Bound awards for carrying more than 20% of their traffic over IPv6.

Skills Agenda

- *Beneficiaries:*
 - *Work experience students*
 - *Student interns*
 - *Year in industry students*
 - *Community technical staff*
 - *Trained Staff Transferring to Industry*
- *Deliverables:*
 - *Skilled staff: Work experience, Internships, Apprenticeships*
 - *Training workshops: (CVMFS, HTCONDOR, FITSM, security)*
 - *Staff to industry*

Facilitating non LHC

- *Exploit technical expertise of grid staff, provide opportunistic access to grid hardware, direct collaboration through IRIS – but relies on grid staff.*
- *Beneficiaries:
non-LHC scientists across the STFC science and user base*
- *Deliverables:*
 - *Continued support for non-LHC Vos*
 - *Deployment of hardware for IRIS*
 - *Successful running of payloads on IRIS hardware*
 - *On-boarding of new communities*
 - *Diversification of service through IRIS? – Tier 0 in particular*
 - *Cloud*
 - *CEPH*
 - *CVMFS adoption where appropriate*

Outreach and engagement

– Type of Impact:

- Communication and engagement*
- Inspiring and Involving*

– Beneficiaries:

- school children*
- general public*
- government ministers*

– Deliverables/Actions:

- Outreach talks etc for schools*
- Talk about LHC Science*
- Tours of facilities*
- Supporting the public engagement team at RAL (eg school code clubs, workshops etc)*

Schools collaborations – essential Becky Parker and the other IRIS

- Type of impact:*
 - Collaboration and co-production*
- Beneficiaries:*
 - school children and schools*
- Deliverables/Actions:*
 - Support for projects using expertise and computer time*

Technical Engagement – with the broader research computing community

– Beneficiaries:

- EGI, EOSC, RCUK, Education Sector, STFC and GridPP*

– Deliverables/Actions:

- Projects arising from interactions with EGI, EOSC
 - BBC*
 - PANOSC*
 - Others?**
- Contributions to EGI EOSC*
- Contributions to IRIS, eg TWG*
- IPV6 Rollout across University sector (awards to IC and QMUL)*

Strategic Engagement – helping shape the future

– Beneficiaries:

- UKRI and research councils*

– Deliverables/Actions:

- Participation in IRIS DB*
- Participation in IRIS RSAP*
- Participation in IRIS TWG*
- Participation in STFC and UKRI Roadmap activities*

Industrial Engagement – with out computing vendors and others

– Beneficiaries:

- Vendors with whom we work – develop new products to meet our needs*
- HNSciCloud*
- SAGE – result of CEPH platform usage*
- Opensource projects:*
 - Contributions to Quator code*
 - Collaboration with CEPH coders*
 - Work closely with HTCondor developers*

– Deliverables/Actions:

- Further collaborations along a similar vane*
 - Anything specific planned?*

LHC

We also support the delivery
of LHC Science

Conclusion

- We under report impact activities – we need to be more systematic and improve our reporting.
- We undervalue much of the work we do that STFC considers impactful
- Much of this work is rewarding in its own right