

Guidelines re: submission of proposals for funding through Partnership Resource (PR)

In no more than 2 x A4 pages, please provide information about the proposed development under the following headings:

1. Summary - of the idea, including its novelty;
2. Deliverables - outcomes and outputs;
3. Participants, public and private sector - and their roles;
4. Overall costs – including cash / in-kind contributions from partners;
5. Funding requested from the Hub, with justification;
6. Duration of development, including proposed start date.

Notes:

- i) *PR is not for capital, but for revenue expenditure only –staff, travel, consumables etc. This is supported at 80% fEC, i.e. usual EPSRC conditions.*
- ii) *In addition to the two-page proposal, full financial costing details (in fEC format and approved by an authorised finance officer) should be attached, including a breakdown of costs at 100% and 80%.*
- iii) *PR is not a substitute for mainstream UK competitive research funding, but rather a potential stepping stone towards such funding.*
- iv) *Technically-focused projects are expected to seed future activity and leverage existing activity, with typical total cost ~£100k (to a maximum of £300k for clearly justified, multi-year strategic projects). Lower budget shorter studies, or non-technical engagement or workshop projects are also welcomed. (See Appendix 1.)*
- v) *EPSRC guidelines for Phase 2 PR projects indicate an equal split between new academic partner focused projects and new industry partner focused projects. The latter will need a clear industry role and identified, quantified contribution to which there is formal commitment.*
- vi) *A project agreement template is available to support these guidelines.*

Proposals will be considered under the following criteria:

Identifiable contribution to:

- Capability – adding new capability or significantly enhancing existing provision;
- Strategy – strategic fit with the Phase 2 Hub’s aims and objectives (see Appendix 2);
- Impact – the project outcomes add to Hub impact;
- Commercialisation – e.g. direct, or as seeding a credible future ISCF project submission.

All proposals must exhibit:

- Partnership – bringing in new partners, or significant enhancement of existing ones;
- Measurable deliverables and realistic timelines;
- Realistic costs, with appropriate contributions from partners.

Proposals should be emailed to georgia.mortzou@york.ac.uk

Appendices

1. Partnership Resource scope - summarised

Examples of this additional funding scope:

- Support evolution of the Hubs
- Bring in new capabilities that are key to Hub success
- Fund engagement with partners outside the initial scope of the Hub
- Respond to new opportunities developed by the QT programme – Hubs and stake-holders
- Involve new R&D partners
- Support activities on a scale appropriate to seeding of future work in research, R&D and innovation (e.g. EPSRC / ISCF proposals)
- Encourage collaboration between Hubs required to support activity with greater impact
- Support a high level of user-engagement at Hub-level – e.g.

- Sandpits or workshops to encourage new collaborations
- Working with new academic or strategic partners
- Pump-priming activities
- Networking activities
- Support for responsible innovation, including appropriate public engagement activities

2. Phase 2 Hub Aims and Objectives - summarised to guide PR proposals

Hub Vision: Integrated secure quantum communications at all distance scales.

Hub Mission: Development of new quantum communications technologies that will –

- overcome current limitations;
- reach new markets, enabling widespread use and adoption;
- enable operation of a viable business model and thus commercialisation (through tech transfer to existing companies, or through start-ups).

Hub Technology R&D - demonstrations across a broad spectrum of technical areas:

- The UK Quantum Network (UKQN): R&D test-bed, further expansion and user engagement
- CV-QKD: using continuous quantum light signals and new protocols
- Entanglement-based networking and QKD
- Hand-held consumer QKD and LiFi/RF wireless for in-room comms
- QKD for space: cube-sat transmitter and ground-based receiver
- Chip-based technologies: floodlight QKD, CV-QKD, MDI-QKD etc.
- New protocols: building on tokens, money, signatures, MACs, QRNGs
- Detector and source development: feeding into other work-packages
- Standards and metrology for QKD and other hardware
- Primitives and hybrid systems: QKD with post-quantum cryptography
- Security analysis and testing: for devices, systems and end-to-end