

QUOG-DP

Quantum Optimization of Worldwide LHC Computing Grid data placement: Development of quantum algorithms for the optimisation of the storage distribution on the WLCG Grid, starting from the specific case of the ALICE Collaboration at LHC.

Current status of progress:

% of deliverables completed so far: 30%

% of budget (100 kEUR) spent so far: 61%

Any remaining uncertainties w.r.t planned deliverables



No



Yes: Development of a fully quantum optimisation algorithm;

Availability of quantum hardware;

Using students (PhD/MSc/BSc) in the project?



No



Yes;

Any interactions with other funded ATTRACT projects so far?



No



Yes



If your project were to be selected for ATTRACT Phase 2:

How would your technology scale up to become an industrial product/system?

The resulting algorithm could be scaled up to optimise highly non-linear, large-scale, complex systems

With who you would need to partner for this to happen?

Any company or service in need of large scale logistical optimisation

Have you already discussed this with KT Group?

Not yet

What applications will you demonstrate with value for science, industry and society?

Optimisation of complex distribution computational tasks involving the analysis of Big Data

Any comments, remarks or observations you would like to make to CERN?

We believe the ATTRACT initiative was extremely successful and we would welcome similar initiatives in the future.