

EPIC UK funding situation

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GUI meeting 3/6/2019

Priority Project Exercise 2018

- 50+ large scale projects were submitted to STFC in 2018
- Reviewed by Science Board in October 2018
- All STFC communities (advisory panels) ask to internally prioritize projects.
- Nuclear Physics Advisory Panel selected ISOLDE upgrade (EPIC)
- Involvement from across UK ISOLDE user community (Liverpool, York, Surrey, Manchester, Edinburgh, UWS)
- Accelerator and High power target groups contacted.

Presented Project

- Three major components
 - High-power beam production and dual/parallel operation of low and high energy radioactive beam lines.
 - The construction of a compact storage ring.
 - The design and deployment of the next generation of detector systems.
- Break down allows CERN and UK leadership within aspects of the project (detector and laser expertise within user community).
- Cost estimates £110M capital and £70M resource over 8 years.

NB: This exercise did not map to a funding call.

EPIC Schematic

ISOLDE-V

Enhanced proton beam delivery and
dumps

Four high power target stations and new
separator area

£46M

Accelerated Beams

STAR-MAKER storage ring
Consolidation of HIE-ISOLDE

£27M

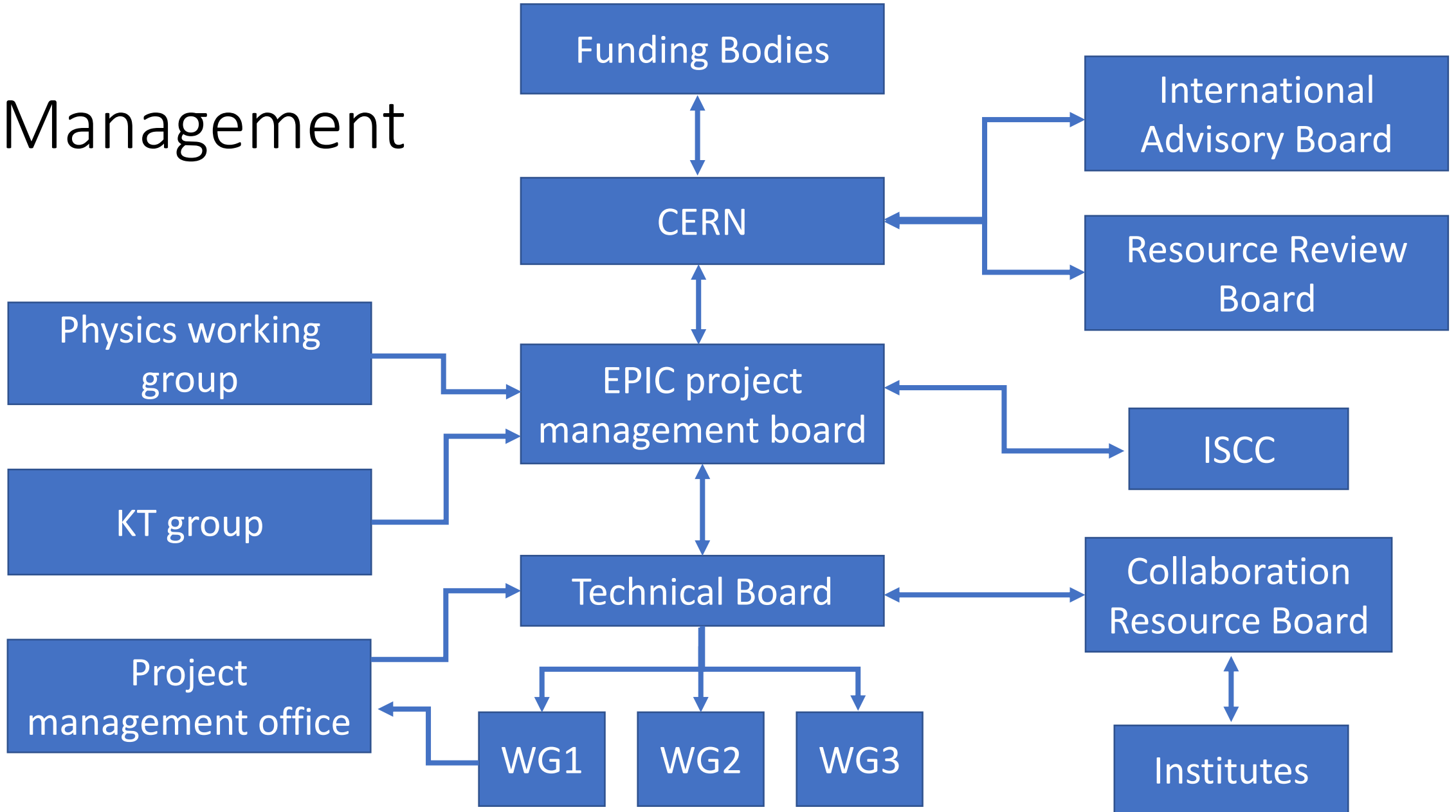
Advanced spectroscopy techniques

In-ring and ISS DSSD +ASIC detectors
MAXIBALL (silicon tracker array and
expansion of MINIBALL)
Advanced high resolution RILIS

£38M

Execution of the components
of the project can be timed
and organized to best match a
constrained budget envelope.

Management



Potential involvement with community

Conversations in 2018 with heads of groups

- ISIS high power target group at RAL
- Accelerator institutes in UK

Potential future champions

- Advanced Materials (Henry Royce Institute) and radioisotope probed (in construction and as a future user)
- Advanced Manufacturing
- Other UK national research institutes

Next steps and funding

- Establish working groups and identify conveners and leaders
- Technical design study and costing
- Organize upgrade workshops at CERN
- STFC opened (at extremely short notice) the Opportunities call to pump prime major initiatives.
- £140k per bid to cover networking and proof of concept studies over 18 months (1 FTE technical fellow for 12 months + travel + PI).
- (Personal view) Expand user community and relevance of ISOLDE to drive large scale investment.

TDR phase

