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N8 Introduction

Sharing for Excellence and Growth

Conclusions of N8 Research Equipment Project Phase 1

N8 Project

- Access to well-maintained and state-of-the-art equipment and infrastructure is crucial to the UK science base and therefore to underpinning national economic competitiveness
- Workstrands on
 - Benefits, barriers & cultural factors
 - Identification of equipment sharing opportunities through classification system
 - Business models & costing
 - Medium scale regional facilities
 - Strategic collaboration

Key achievements during project

- Substantial upgrade of quality of databases & far more efficient searching via taxonomy
- Consideration of requirements for standard cost models
- Identification & realisation of strategic opportunities
- Demonstration of additional benefits
 - foci for working with business
 - catalysing wider opportunities including common procurement, training and service contracts

Benefits of sharing

- Sharing offers positive benefits of 3 kinds
 - Creating concentrations of research activity to drive excellence & impact
 - Increased efficiency by reducing number of items purchased & increasing load factors
 - Acquisition of capital assets too large for a single institution

Necessary preconditions

- Trust between holders and users of equipment
- Ability to locate equipment with spare capacity
- Governance and management framework to cover additional costs, clarify service levels and organise IP, H&S, liability & training issues
- Proximity and travel time factored in

...but sharing only works in right circumstances

- Substantial transaction costs only partly sensitive to scale
 - Access arrangements & provision of technicians for longer hours largely fixed costs
- Hence sharing far more viable for large items
 - No fixed cut-off but probably £200-500k range is entry point for anything beyond casual opportunities

Balanced incentives across all parties

- Funders seeking to reduce duplication and hence demand for support
 - Also welcome synergies from critical mass or interdisciplinary opportunities coalescing around sharing
- Critical that reduced capital costs not converted to increased operating costs for institutions
 - Also must avoid forced marriages
- Will take some time to develop sharing culture & optimise practicalities – in meantime
 - Meet full cost of shared facilities (also defers host contribution issue)
 - Ensure access & coordination costs allowable for hosts & visitors

HEI obligations

- Proactive policies for equipment to ensure registers kept up-to-date and acquisitions aligned with strategies for relevant research areas
- Support for those building collaborations & underpinning social capital
- Visiting users should be treated in non-bureaucratic & non-discriminatory manner
- Key to manage expectations – sharing not a panacea
 - Cultural change will take time and models do not fully resolve financial issues

Project success factors

- Standing collaboration with high trust, good communication and a management resource
- Senior management commitment and operational level buy-in
- Practical encouragement & support from Funders
- Discovery that this approach facilitates working with industry
- Focus in key areas where clearly realisable benefits

What has happened since

- Report published and well publicised
 - Letter in [Nature](#)
- Working with other university groupings to develop inter-regional inventory system
- Strategic plans for equipment provision in number of areas
- Contribution to political case for efficiency in Universities
 - Cited by House of Lords Select Committee
 - Cited in [Government response](#)
 - Ministerial speeches

Platform

- Common searchable research equipment system across N8 www.n8equipment.org.uk
- [N8 High Performance Computing Facility-](#) awarded to Manchester, facility provided by Leeds
- Equipment base critical in [Industry Innovation Forum](#)
- Future research and capital planning:
 - Chemistry – success in EPSRC Core Capability call
 - Biological NMR
 - Physics
 - HPC Technology Roadmap
- Seeking to contribute to response to HEFCE Grant Letter, Diamond and Capital consultation all of which will be covered later today