

UNIVERSITY OF WARWICK

**For the meeting of the Senate to be held on 12 March 2014**

**Subject:** Research Technology Platform Strategy (S.46/13-14, attached)

**Prepared by:** Professor Tim Jones, Chair, Research Committee and Pro-Vice-Chancellor for Research (Science and Engineering), Knowledge Transfer & Business

**Presenter:** Professor Tim Jones, Chair, Research Committee and Pro-Vice-Chancellor for Research (Science and Engineering), Knowledge Transfer & Business

**Purpose of the paper:** To brief members of the Senate on the proposal to implement a Research Technology Platform Strategy

**Recommendations:**

The Senate is invited to consider and approve the proposals that the Biomedical Services Unit, High Performance Computing, the Electron Microscopy facility in the MAS building, the X-ray Diffraction Suite in the MAS Building, and the Biological Mass Spectrometry facility be established as Research Technology Platforms, with effect from 1 August 2014.

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Implementation plan for the meeting of the Senate to be held on 12 March 2014**Update on the implementation of the research technology platform strategy**1. Introduction

Since the Steering Committee received its last update on 7 October 2013, significant progress has been made with the implementation of the research technology platform strategy, as is set out in more detail below. Conversations with the EPSRC and other major funding bodies have confirmed that the University's adoption of a research technology platform strategy to facilitate more strategic and sustainable investment in significant capital infrastructure in the long term is the right approach and in keeping with the government's and funding bodies' desire to engage more strategically with universities and regional consortia over long-term capital investment.

2. Consideration of the business cases and financial plans

The following six user groups wishing to set up their facility as a research technology platform with effect from 1 August 2014 submitted business cases for consideration by the Research Technology Platform Strategy Project Board at its meeting on 13 November 2013: Biomedical Services Unit, the Centre for Scientific Computing, Electron Microscopy in the MAS building, X-Ray Diffraction in the MAS building, Biological Mass Spectrometry and Magnetic Resonance in Milburn House.

The Board identified the following criteria for its initial consideration of the business cases and in order to make a recommendation to the Academic Resourcing Committee:

- Track record to date as a facility, including facility management and quality of research outputs;
- Number of users overall and number of users across different departments;
- Ability to work within existing resources;
- Likelihood that the facility would enable greater volume of higher quality outputs;
- Likelihood that any expanded facility will attract more users (internal and external) and income, including from industry.

Using these criteria, the Board recommended to the Academic Resourcing Committee that the business cases for the Biomedical Services Unit, High-Performance Computing, Electron Microscopy, X-Ray Diffraction and Biological Mass Spectrometry be approved. The Board acknowledged the effort put into preparing the initial business case for Magnetic Resonance but was of the view that it could not recommend that the facility be set up as a research technology platform in this first round.

The Academic Resourcing Committee considered the recommendations from the Research Technology Platform Strategy Project Board at its meeting on 11 December 2013. The Academic Resourcing Committee approved the proposals for the five new research technology platforms in principle, subject to consideration of the detailed financial plans. The detailed financial plans were considered by the Research Technology Platform Strategy Project Board on 4 February 2014 and subsequently by a sub-group of the Academic Resourcing Committee on 11 February 2014. The sub-group of the Academic Resourcing Committee recommended that the proposals and financial plans for the Biomedical Services Unit, Electron Microscopy, X-Ray Diffraction and Biological Mass Spectrometry be approved. In the case of High Performance Computing, the sub-group of the Academic Resourcing Committee recommended that the facility be set up as a research technology platform, subject to approval of the financial plan, noting the need for further dialogue on a number of remaining issues including the charging mechanism whilst recognising the tight timeline and the general desire to establish this facility as

a research technology platform this year if at all possible. It was also agreed that the status of the existing Centre for Scientific Computing should be changed and this should be considered by the University Research Committee.

### 3. Proposed governance arrangements

As set out in more detail in appendix 1, it is proposed each research technology platform be set up as a research service unit, along the lines of an academic service unit, and that they be financially accountable to the Academic Resourcing Committee. The academic director of each research technology platform will report to the Pro-Vice-Chancellor (Science, Engineering and Medicine). Each Director will be accountable to the Academic Resourcing Committee via the Pro-Vice-Chancellor for his/her platform's budget and the achievement of his/her platform's key performance indicators. Some high-level indicators applicable to all platforms have been identified in appendix 2, with more specific quantitative and qualitative indicators still to be determined for each platform, recognising the opportunities for development as well as the constraints within which they will each operate. The Pro-Vice-Chancellor will be ultimately accountable to the Academic Resourcing Committee for the platforms' performance.

Departments affected by the decision to set up a facility as a platform are being supported in the preparation of their five-year plans and space returns. The closely interlinked nature of some of the departmental and potential research technology platform infrastructure should be recognised, with the consequent need for close coordination of any departmental and research technology platforms bids for funding for consideration by the Academic Resourcing Committee and/or the Capital Planning and Accommodation Review Group. Discussions are also ongoing with departments to ensure that research technology platform staff can continue to use existing departmental workshops and facilities and that the appropriate health and safety arrangements are in place.

Research Committee has been kept abreast of implementation. The University's adoption of a research technology platform strategy has also fed into the development of the University's research strategy.

### 4. Potential implications for staff

Whilst internal users of the research technology platforms will remain within their current home departments, it is proposed that the technical staff responsible for the provision of each platform's services be transferred to the relevant research technology platform. The director of the platform will be an academic member of staff seconded to the role from their home department, normally on a 0.3FTE basis. As set out in more detail in appendix 3, an analysis of the impact of the proposed changes on staff and of the associated risks and costs has been carried out. In general, affected staff are aware of the proposed move to research technology platforms and supportive of the strategy, although there is inevitably some concern over future job security as a result of the changes and the fact that the long-term financial status of the technology is more transparent. Colleagues from the Human Resources Department are providing appropriate support, where necessary.

**The Senate is invited to consider that the Biomedical Services Unit, High Performance Computing, the Electron Microscopy facility in the MAS building, the X-ray Diffraction Suite in the MAS Building, and the Biological Mass Spectrometry facility be established as research technology platforms, with a view to them being operational from 1 August 2014.**

Professor Tim Jones  
**Pro-Vice-Chancellor (Science, Engineering and Medicine)**

Appendices

- Appendix 1 Proposed governance and oversight for research technology platforms [paper RTPS.7/13-14 (revised 2)]
- Appendix 2 Proposed key performance indicators for research technology platforms [paper RTPS.8/13-14 (revised)]
- Appendix 3 HR summary of research technology platform resource proposals

## UNIVERSITY OF WARWICK

For the meeting of the Research Technology Platform Strategy Project Board on 30 October 2013

**Proposed governance and oversight for research technology platforms**

Each user group wishing to set up their facility as a research technology platform is expected to prepare a business case for consideration by the Academic Resourcing Committee (ARC). Where ARC judges the business case to be viable, it will make a recommendation to the Senate, via the Steering Committee, that the facility be set up as a platform. This year whilst the research technology platform strategy is being implemented, the business cases are being scrutinised by the Research Technology Platform Strategy Project Board prior to submission to ARC. Once the project board has been disbanded next autumn, the University may wish to identify an alternative mechanism for initial scrutiny of the business cases (for example, via the Research Committee).

Following approval by the Senate of the recommendation from ARC, each research technology platform will be set up as a research service unit, along the lines of an academic service unit. Since the platforms are being created to support the research endeavour (and in the longer term to enhance this endeavour through more strategic and sustainable investment in capital infrastructure), it is proposed that they are financially accountable to ARC.

As already agreed, the director of each research technology platform will report to a Pro-Vice-Chancellor for Research. For the foreseeable future, this will be the Pro-Vice-Chancellor for Research (Science and Engineering), Knowledge Transfer and Business Engagement. Each platform will have its own cost centre. Rather than every director presenting his/her five-year plan individually to ARC, it is proposed that they each present their plan to the Pro-Vice-Chancellor, who will then present a summary of the platforms' plans to ARC in accordance with the five-year planning timetable. Where large and potentially competing bids for capital equipment are made by the various platforms, the Pro-Vice-Chancellor will be expected to prioritise these bids in his presentation to ARC. Where a bid falls outside the normal timetable (because, for example, a commitment to match-funding is required for an application to a research council), the director of the platform will be expected to approach the Pro-Vice-Chancellor for Research (Science and Engineering), Knowledge Transfer and Business Engagement for amounts under £50k and the Provost (via the Pro-Vice-Chancellor for Research (Science and Engineering), Knowledge Transfer and Business Engagement) for bids over £50k. Where a bid requires investment from Estates as well as capital for the purchase of the new equipment, it will need to be referred to the Capital Planning and Accommodation Review Group for consideration. More generally, the closely interlinked nature of some of the departmental and potential research technology platform infrastructure should be recognised, with the consequent need for close coordination of any departmental and research technology platforms bids for funding for consideration by ARC and/or CPARG.

Each Platform Director will be accountable to ARC via the Pro-Vice-Chancellor for his/her platform's budget and the achievement of his/her platform's key performance indicators. The Pro-Vice-Chancellor will be ultimately accountable to ARC for the platforms' performance. The initial set of key performance indicators is still to be determined by the Research Technology Platform Strategy Project Board but is likely to include tangible measures, such as the number and value of research grants, publications or translational outcomes, or the number of external users, and intangible benefits, such as fostering interdisciplinarity. The aim is to establish some high-level indicators applicable to all platforms and then develop some more tailored and specific indicators

for individual platforms, recognising the opportunities for development as well as the constraints within which they will each operate. Once the platforms have been set up, ARC will monitor the achievement of these key performance indicators on an annual basis as part of the five-year planning round. ARC will be responsible for ensuring appropriate, holistic scrutiny of the performance of the technology platforms alongside the performance of the departments in the Faculties of Science and Medicine.

Should a research technology platform wish to expand in future (for example, to include related facilities elsewhere on campus), a business case for the expansion would need to be made to the Research Committee and subsequently ARC. If the business case for expansion is judged viable, then the necessary arrangements for expansion can be made. In order to ensure that the Research Committee is able to make an informed decision on whether to approve new business cases or cases for expansion, the Pro-Vice-Chancellor's report(s) to ARC on the performance of the research technology platforms will be shared with the Research Committee on an annual basis.

Where a research technology platform does not meet its key performance indicators, ARC may undertake a review and reduce investment in line with normal ARC processes and in consultation with the Research Committee, noting that ARC may ultimately determine that the facility should no longer be a research technology platform.

Each research technology platform will continue to adhere to any external legislative or regulatory requirements. For governance and regulatory purposes, each Research Technology Platform Director will also report to the Registrar and Chief Operating Officer.

## UNIVERSITY OF WARWICK

For the meeting of the Research Technology Platform Strategy Project Board on 13 November 2013

**Proposed key performance indicators for research technology platforms**

The desirability of identifying some key performance indicators for the research technology platforms was established during the feasibility study and in the subsequent project implementation plan, as well as through various discussions with academic and administrative colleagues. The aim of this paper is to identify some high-level indicators applicable to all platforms. Once the business cases have been received from the user groups wishing to set up their facility as a platform and judged to be viable, some more tailored and specific quantitative and qualitative indicators will be developed for the individual platforms, recognising the opportunities for development as well as the constraints within which they will each operate.

It is proposed that the high-level indicators cover the following areas in the first instance, noting that these are not in any order of priority:

- Publications: number and percentage of high quality publications, number of citations (noting time lag associated with publications)
- Impact: IP, patents, licences, translational outcomes, international recognition
- Usage: number and diversity of users both internal and external, utilisation of capacity (incl. percentage of unutilised capacity), sustainability, academic and non-academic engagement with platform, impact on academic recruitment and retention. -- This would lend itself to a series of graphs or charts: for example, a pie chart of the different types of user, a pie chart of usage split between funder types or if unfunded.
- Financial KPIs:
  - Actual surplus/deficit variance from budget
  - Annual expenditure per number of publications and patents
  - Annual staff costs as percentage of total annual expenditure
- Research Income: Research Council grants, other funding (for example, Wellcome) and income from industry
- Other Income: capital grants, support from industry and instrument manufacturers
- Number and take-up of training courses offered
- Quality of services offered to users and alignment with their research needs. – This could be assessed via annual user survey and scored using agreed methodology.

On a University level, the development of best practice in supporting research infrastructure and increased visibility with the research councils and other funding bodies are proposed as key performance indicators.

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**HR Summary of Research Technology Platform Resource Proposals**

- All resource proposals were investigated with academic leads to fully understand the rationale for the operational models that were submitted as part of each business case.
- The investigation compared job roles associated with current technologies to the proposed structures in terms of job titles, nature of the role, grade and possible incumbents.
- In the proposed structures there has been some suggested grade inflation where roles appear to map across. In discussion however, the suggested grade inflation is not considered by the Academic Leads as a pre-requisite to the transfer, but as a means of further recognising individuals in their current roles through increased re-numeration. Clearly this needs to be determined by the evaluation process. This may however create a scenario where a role is evaluated significantly higher than the individual's current grade which could bring about displacement. The intention however, is to retain the current skill set and up-skill where necessary.
- The general consensus following discussions with the Academic Leads is that the vast majority of these roles will transfer or map to the proposed structures, although there may a number of roles which change by over 25%. The impact of this will need to be re-examined following the job evaluation process. If required the appropriate level of consultation will be entered into, although it is expected that this will be minimal and part of the overall staff communication plan.
- Feedback received is that individuals associated with current technologies are aware of the initiative to move to RTP's and are supportive in the main. There is however some concern over future job security as a result of the long-term financial status of the technology becoming more transparent and the increased demand for the technology to become self-sustaining. Resistance to change overall however is potentially less than anticipated.
- The implementation exercise to move to the proposed resource structures will predominately require internal transfers of staff, a recruitment exercise and a degree of up-skilling of the existing technical staff and potentially some considerable development for individuals who take on 'Platform Manager' roles. This will predominately be in areas such as strategic and financial planning and customer engagement (to be determined following job evaluation).
- Whilst it is not anticipated there will be a requirement for severance payments, there will be associated recruitment costs and a required provision for training and development costs. Consideration has been given to these costs within the overall financial envelope.

**Summary of Potential Risks**

| Risk Identified  | Impact |
|--|--------|
| <ul style="list-style-type: none"> <li>• Potential for disagreement between employee and employer on the outcome of the mapping process</li> </ul> |        |
| <ul style="list-style-type: none"> <li>• Redeployment of current employees to roles beyond their capability</li> </ul>                             |        |
| <ul style="list-style-type: none"> <li>• Potential for mismanaging expectations regarding job grade increase</li> </ul>                            |        |
| <ul style="list-style-type: none"> <li>• Potential for 1 possibly 2 individuals to be displaced</li> </ul>   |        |



Appendix 3

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Job Descriptions are evaluated at a lower/higher grade than anticipated</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>• Grade Drift may encourage other technicians across the Institute to request a re-evaluation using RTP role descriptors as a comparator</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>• General communication issues for employees that leave them feeling confused and devalued</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>• Staff turnover and loss of skills as a result of organisational change</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>• A sense of disengagement with specific department as a result of being set up independently, resulting in resistance to change or lack of motivation to deliver a successful service</li> </ul> |  |
| <ul style="list-style-type: none"> <li>• Lack of operational support and leadership during and post transition</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>• General institutional wide communication issues clearly explaining the change to users and potential users</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>• Legislative and employee relation type issues</li> </ul>  |  |

**Key:**

|  |                   |
|--|-------------------|
|  | High Level Risk   |
|  | Medium Level Risk |
|  | Low Level Risk    |

**Next Steps**

- Detailed HR plan by individual technology platform in line with the overall transition plan.
- Confirm organisational 'establishment' of technology platforms and governance process.
- Establish an internal and external communications plan, including low level trade union engagement
- Creation of new job descriptions and job evaluation completed
- Consider the possibility of creating a unique technical job family and career trajectory.
- Implement a Recruitment and Selection Plan for new roles.
- Carry out individual consultation and discussions.
- HR Administration process
- Implement Training and Development plan.
- Agree and deliver post-transition support.

Please note: This summary assumes an evaluation at FA grade 7 for the role of Platform Manager