

SFC's Questions	
<i>Section 1: Initial research pooling initiative</i>	
<p>Q1a. What has been the impact of the initial research pooling initiative?</p>	<p>The research pools have successfully underpinned the development of the collaborative activity between Heriot-Watt and other Universities.</p> <p>There have been hugely positive benefits to Scotland's worldwide visibility as a hub for excellence (e.g. in Computer Science and Robotics through SICSA). It has forged collaborations between Scottish institutions and industry through activities such as workshops, proposal writing, and outreach among others.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Edinburgh research Partnership in Engineering (ERPe) and SICSA: Robotics and Autonomous Systems and in Signal and Image analysis. This has gone from strength to strength, with recent awards including the £36M ORCA Robotics Hub (EPSRC/Industry), plus £35M funding from the Edinburgh City Deal for the National Robotarium. • MASTS: enabled coordinated influence on relevant government committees, delivering impact. • ERPe and SUPA: The engineering and physics research pools have also been instrumental in enhancing and developing the Photonics EngD Centre (originally Heriot-Watt with Strathclyde and St Andrews) into the truly pan-Scotland 6-university Centre for Doctoral Training in Applied Photonics, which has recently been awarded continued funding until 2028. • REF: Pooling played a particularly important role in underpinning the successful joint REF submissions involving Heriot-Watt University and the University of Edinburgh in Engineering and Mathematics. • MASTS: The NERC DTP, <i>SUPER</i> awarded 2018. Would have been unlikely to have happened without Pooling and certainly not to the same scale. • SICSA: Enabling European funding such as MUMMER (£3M involving HWU and Glasgow) • ERPe: The average number of jointly published research outputs annually has increased in some cases dramatically e.g. in Engineering this has increased tenfold since ERP was formed.

<p>Q1b. What lessons can be learnt from the research pooling initiative?</p>	<p>Good Practice Enabled by Pooling</p> <ul style="list-style-type: none"> • Better understanding of the Scottish Sector (knowledge of resources, facilities, equipment, etc.) on which effective collaborative bids have been based. • Many institutions operate internal funding schemes to stimulate or support activity. Pooling enabled this to operate at a cross-institute level more frequently and more widely. These cross-institutional pump-priming and PGR funding can be key in building contacts, networks and laying groundwork for large scale collaborative activity. • Enhance pan Scotland support for PGR Cohorts provided by some pools, e.g. SUPA. <p>Aspects that Could have been Improved</p> <ul style="list-style-type: none"> • Support including high-level (Operations Directors, etc.) proved invaluable but could have been in place sooner. • Pools encouraged use of Pool names in publishing affiliations and acknowledgments. However, this would have benefitted from consistent and effective guidance to ensure that it was universally adopted and that institutions received equal recognition. • Useful investment was enabled on building connections between partners; pools could have also considered investing more in developing wider collaborations (PhD student travel, international workshops and conferences, equipment and visiting fellows.)
<p><i>Section 2: Pooling now and in the future</i></p>	
<p>Q2a. In the current research landscape, what is the perception of, and role for, the pools?</p>	<p>The Pools' profiles are proportionate to the traditional importance of critical mass in the relevant discipline. In some cases the Pool has demonstrated international standing, e.g. enabling MASTS to have a seat on the European Marine Board. Pools have also reported increase in UK and international collaboration on high quality research outputs. For example articles published as Edinburgh Research Partnership including authors in both institutions have published with US institutions (> 130), China (> 55), Germany (> 50) and over 100 other countries. These have included Harvard, Australian National University, Johns Hopkins University, Shandong University, Stanford University, STMicroelectronics and 100 other international organisations.</p>

<p>Q2b. Should research pools have a continuing role in the Scottish research base?</p>	<p>There is no doubt that the research landscape has become more complex since the initial conception of the Pools. To secure a successful future for themselves and the Scottish research base the Pools need to adapt to this landscape and there is evidence that some of them are doing this, e.g. SRPe. However, it is by no means clear that a pan Scotland approach is the best response, for example, recent investment in the City Deals (Aberdeen, Edinburgh and Stirling) and initiatives such as NMIS (National Manufacturing Institute for Scotland at Strathclyde) suggest that a more regional approach may be more appropriate.</p> <p>If it is decided that Pools do have a future then investment is required to establish their role in the new research (funding) landscape in the UK.</p>
<p><i>Section 3: Anything else</i></p>	
<p>Any further perspectives on the introduction, implementation and impact of research pooling are welcome.</p>	