

Professor Ian Boyd response

I am providing this evidence in my capacity as an academic attached to a Scottish University and the person who created and briefly led one research pool, the Marine Alliance for Science and Technology. I note that you have also written to Defra to ask for its input. Since I am Chief Scientific Adviser at Defra and this will come from my office in Defra (copied), I will not comment here on Defra's view of research pooling.

I will cover the wider strategic context of pooling and then focus in on the specifics, especially in relation to the relative success and impact of pooling. I will then suggest next steps.

1. Strategic context

At the time of their creation, the pools were seen as an answer to the question of how to create greater coherence among a dispersed Scottish research base where there was a perceived need for greater critical mass in areas of research which are key to the future of the Scottish economy. The perception of dispersion and incoherence of research activity in Scotland is somewhat illusory since Scotland, seen in global terms, is such a small player and is already geographically, culturally and administratively coherent when it comes to scientific research. Indeed, the rationale behind pooling was probably mainly an attempt to correct a legacy of deeply rooted internal competition between academic institutions and, to a lesser extent, a divide between academically-based research and government sponsored research especially in the areas of agricultural and rural research. Overall, it was an attempt to get the leadership of Scottish research to think strategically about their future, and to address the national (Scottish) interests rather than just the parochial interests of institutions.

Breaking out of atavistic moulds has been difficult in Scotland. The leadership within some of those moulds, in the form of academic and research institutions, has not always been sufficiently realistic about their own merits, often seeing themselves as better than they really are – a consequence of a tendency towards introspection within relatively small communities. Scotland, for its size, does have a strong research tradition and, by some measures, this is reflected in disproportionately high performance relative to the rest of the UK. However, this position may be being won mainly off the back of investments made more than a generation ago and there is a question about how to maintain momentum in a modern context.

Therefore, in the backdrop to pooling was a range of imponderables about the current fitness of the Scottish academic research sector, its trajectory and global competitiveness, and whether it was really contributing to national wealth creation and human welfare at the level justified by current investments of public money.

£140 million is not a lot of money to spend as a stimulus package for nationwide research over a period of 15 years. Although I was not involved in the strategic discussions at the time the decision was made to support pooling, there would have been a discussion about whether to spend this amount on a small number of focussed investments or to spread it thinly as had been done by previous SCF stimulus investments. As a solution, pooling has turned out to be the "spreading thin" solution but with a nod towards focussed strategic investment.

Has pooling worked? This is, of course, an imponderable question because it comes without a counterfactual but it is possible to compare the result with the initial ambition and to analyse the strengths and weaknesses of the model.

2. Strengths of pooling

The initial request of those creating pools was to develop a business case which could demonstrate sustainability. Since most of the pools which were created are still in existence 10-15 years on then I suggest that this represents a form of sustainability and, therefore, success. There was a danger that pools would be seen by some institutions as a short-term method to download public funding with no real intent to invest for the future. Indeed, from the start this was the most likely outcome given the very mixed history of prolonged cooperation at the operational level between different academic institutions in Scotland. That, in general, this has not emerged is down mainly to a careful process of stewardship and accountability imposed by the SFC. But this success has also been down to some institutions willingly taking on responsibility for providing national-level leadership, which they saw as benefitting the larger project as well as themselves. Pooling presented the opportunity for some individuals and institutions to develop these leadership positions and to do this in a manner which was supportive at a nationwide level, thus raising the game for all (or most). Pooling has had some success at cutting through the internally competitive research environment and to create strategic alliances.

Perhaps the most universally successful feature of pooling has been the creation of cross-institutional graduate schools. I do not have to hand the number of these in existence but I am aware to some pools have been the foundation for successful DTP applications with the Research Councils. But even in the absence of this funding these graduate schools made sense to the institutions involved because they meant they could offer better courses without the need to support all the academic expertise needed. I suspect this was a greater advantage to the smaller academic institutions though or in subject areas, like marine science, where expertise was thinly spread among many different institutions, some outside the purely academic sector.

3. Weaknesses of pooling

I have less knowledge of examples of strengths created by pooling in terms of the creation of new research opportunities. I think this is critical and will need careful scrutiny. If pooling is to work strategically it should be building new capability and attracting new investment, specifically tagged as pooling-related. To my knowledge, this has not happened so it may be a weakness rather than a strength. Arguably, pooling has not been in existence for long enough to create the kind of cultural and structural shifts towards cross-institutional collaborations which would lead to this kind of structural investment. One would need to investigate the recruitment policies of institutions, like Scotland's research-intensive universities, as well as their strategies, to understand whether pooling has really embedded itself within the institutional structures delivering research across Scotland. I suspect it hasn't, yet.

Pooling did not include any agricultural focus. The pools were designed mainly bottom-up rather than top-down with national interests in mind. Pooling has failed, at least in my view, to address the future of the Scottish research landscape in the form of the relationship between its academic investments and its Main Research Providers (with the possible exception of marine science where Marine Science Scotland is included in MASTS). I think this has been a major failing.

Regarding MASTS, I think it has achieved the objective of coordinating among many disparate interests in marine science but it still has a long way to go to raise the game with regard to ensuring that Scottish marine science is at the global leading edge across more than just a few small pockets of activity.

Leadership, as well as organisational structure, has been of very variable quality and success among the different pools. There is much to learn about what works best from this experience.

Finally, the ambitions of pools to attract the best research from around the globe to come to Scotland turned out to be unrealistic. Apart from a few cases, the packages offered were insufficient to attract the research talent at senior level and some who did come then were half-hearted in their commitment. Some of the pooling funding was used to simply move talent around within the system. This is better than losing the talent from the system but, in future, it would be better for public funding to be put in to infrastructure and to allow the institutions to look after to stewardship of talent.

4. Next steps

It is important to build on pooling. It has been an important, if insubstantial, strategic investment. To drop pooling now would be to lose much of the ground which has been gained. Pooling was an original idea when it began but others have copied pooling (especially regionally in England) so the competition has caught up.

Some pools will have demonstrated more strategic promise than others. I suggest that the pools should be challenged to come up with strategic plans for their own research fields and that those should be at the next level of ambition to the process of establishment of sustainable activity in the chosen research field. These plans should be about ensuring Scottish research is on the global leading edge but, more importantly, that it supports the economy of Scotland and the health and welfare of Scottish people. These plans, which should be created against a set of foresight challenges for Scotland, should be invited with a view to investing public funding in creating perhaps two or three national-level research institutions over the next 10-20 years. These institutions would need to be co-owned and co-developed by Scotland's universities.

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