

Written Evidence Submitted by Universities Wales (RFA0088)

About Universities Wales

Universities Wales represents the interests of universities in Wales, and is a National Council of Universities UK. Universities Wales's membership encompasses the Vice Chancellors of all the universities in Wales, and the Director of the Open University in Wales. Our mission is to support a university education system which transforms lives through the work Welsh universities do with the people and places of Wales and the wider world.

Executive Summary

- We believe that any new research funding agency should address gaps within what is a crowded and complicated UK research landscape, not duplicate existing structures and mechanisms.
- An agency which is focussed, flexible and agile enough to support and drive high risk, high pay off and cross-disciplinary projects would be of benefit to the research sector.
- Any new agency should be purposely established to engage and work in partnership with a well-funded university sector, as is the case with other examples internationally.
- Autonomy and adherence to the Haldane principle should be a key consideration in the development of a new agency. Programme Managers in the new agency should – in partnership with the research community, including universities – be responsible for making funding decisions.
- There is an opportunity to make a bold statement regarding the levelling up agenda within UK Government, by basing a new agency in a devolved region and ensuring that it supports projects in all regions and nations of the UK.
- Welsh research and innovation is recognised as world leading and internationally excellent, having impact in over 100 countries across the globe, being cited well above the international average while also being the best value for money. Wales would offer an ideal physical base for any new agency and show a bold step change from the UK Government in truly levelling up all regions and nations of the UK.

What gaps in the current UK research and development system might be addressed by an ARPA style approach?

The existing UK research landscape is complex and multi-faceted. As such, it will be important that any new funding agency complements the existing landscape and does not duplicate any of the existing structures or further complicate an already complex area.

There is a gap in the current sector, for a [funding agency which supports and invests in visionary, high risk and high pay-off projects](#). It would be fundamental for any new, ARPA-style agency to have close links to a well-funded university network, as is the case with the [hugely successful links between DARPA and universities](#) in the USA. These links are drawn upon by Lord Willetts in the 2019 report, "[The road to 2.4 per cent](#)" noting that the DARPA model:

"is only possible because the network of universities and research institutes on which it draws is already there and well-funded by other Federal agencies"

Additionally, there is an opportunity to emphasise and reinforce the UK Government's [levelling up](#) agenda by basing a new agency outside of the 'golden triangle' and exploiting the rich networks and collaborations that exist across the other nations and regions of the UK.

Wales is well placed to host an ARPA-style funding agency, given its internationally recognised research, which is impactful in hundreds of countries across the world and offers the best value for money when measured against comparator countries internationally. Basing any new funding agency outside of the Golden Triangle – especially in a devolved nation – offers an opportunity to commit to bold and symbolic action in living the levelling up agenda across the Union.

What are the implications of a new funding agency for existing bodies and their approach?

As noted above, it should be a priority for a new funding agency to do something different and bold which complements the existing structures rather than duplicates or over-complicates the current landscape.

The new agency should seek to interact closely with other funding agencies in UK, making the most of existing innovation and expertise. This must include funders in devolved nations.

The renewed focus on research and development by the UK Government should include efforts to simplify the existing landscape, regardless of the creation of a new funding agency.

Removing the barriers and incentivising coordination between research organisations and funders is required. Agreeing common practice and reporting requirements will further enhance efficiency and transparency. It is important for this simplification to happen, whether a new agency is created or not. Should the new agency be created, then it could well be a role model in efficiency and simplification for the other stakeholders in the sector.

What should be the focus of the new research funding agency and how should it be structured?

The new agency should have a clear and focussed remit, which sets it apart from the rest of the research landscape. We believe there is a gap in the sector for a funding agency which supports high risk and high pay off projects which are cross-disciplinary and therefore not served fully by more siloed funding mechanisms which currently exist.

Addressing the [Grand Challenges](#) facing the UK and the wider, international community by supporting innovative projects not currently served by the current system should be an important function by the new agency. In order to identify where grand challenges are not being served well by the current eco-system, the new agency should work with the research sector and stakeholders to identify areas of weakness and identify a strategy which addresses these areas and complements what exists.

There are a range of current projects in Wales which are driving the UK efforts on [AI](#), [ageing populations](#) and [clean growth](#) among other areas. A close interaction with these projects should be an important aspect of the new agency, so as to differentiate its work and complement as opposed to duplicate existing systems.

The relationship between public and political perceptions of research and development should also be a key consideration, in justifying the welcome increase the R&D expenditure but also in incubating a sense of ownership and generating buy-in to the agenda – demonstrating the value it has on every day lives.

Welsh universities have long led the field in the civic mission agenda, delivering for the communities and regions in which they are rooted whilst contributing to a national effort. Analysis by King's College London on research impact in Wales noted how Welsh research had benefitted communities in Wales. This benefit taking the form of contributing to the reform of Welsh government policy, transforming public awareness on topics ranging from equality to national identity, increasing participation in the arts, or supporting national economic growth¹.

Any new agency would benefit from considering these approaches as they have demonstrably brought significant benefit to communities and regions, whilst building bridges between universities and their local areas.

The agency should seek to follow the Haldane Principle and allow 'programme managers' or equivalents within the agency to be responsible for setting priorities, while driving a focus on knowledge sharing and networking. This should incentivise greater coordination and collaboration while simultaneously giving the experts in the agency the flexibility to be efficient, innovative and play to the UK's strengths. As has already been noted, the links between DARPA in the US and the university research sector have been crucial to its success. As such, the creation of the new agency should prioritise a mechanism for the engagement of and partnership with universities across the whole UK. In addition to the new agency being engaged with the whole UK, it is important that Programme Managers are experienced in the

¹ <https://www.learnedsociety.wales/celebrating-impact-wales-research/>

wider UK research sector, in particular the devolved nations, if the UK Government's levelling up agenda is to be truly realised.

While a clear and focussed remit will be vital to avoid duplication, the structures within the new agency should be mobile and flexible to as to support cross-disciplinary, high risk and reward programmes and be responsive to emergent challenges and opportunities. Programme Managers or their equivalents should have autonomy over how funding is allocated and to whom, but in order for this to be successful it will be key that these individuals have a good understanding of research and development within the whole UK – and in particular the devolved nations.

What funding should ARPA receive and how should it distribute this funding to maximise its effectiveness?

As we noted previously and in line with the Haldane Principle, Programme Managers within the new agency should be autonomous and responsible for the distribution of funding. These individuals must have a good understanding of the UK-wide research landscape, including devolved nations.

The levelling up agenda should be a key consideration in the distribution of funds. Identifying areas of strength within the research community and areas of geographic strength and collaboration.

What benefits might be gained from basing UK ARPA outside of the 'Golden Triangle' of London, Oxford and Cambridge?

When considering basing any new agency outside of the Golden Triangle, it is important not only to consider the physical base and presence of a new agency, but also where the funding is distributed to.

Basing the physical presence of the new agency outside of the golden triangle does offer the opportunity to demonstrate actions as well as words, to a levelling up agenda for the whole of the UK. Operating in a devolved region would also offer the agency an important opportunity to more fully understand the context of the whole of the UK, including the social and economic challenges the UK faces.

The vast majority of [Welsh research](#) is rated as world leading or internationally excellent according to [REF 2014](#), it is also impactful in over 100 countries globally, cited well above the international average and is the best value for money when measured against all other comparable nations.

Wales punches above its weight when it comes to research and innovative collaboration with industry. In addition to this, Welsh universities are key parts of the local communities and regions both [economically](#) but also via their [contribution to civic life](#). This puts Wales and Welsh institutions in the unique position of being able to drive innovative and world leading research while being able to join the dots

to deliverables for their communities, generating a sense of cohesion and [demonstrating their impact](#).

Wherever the new agency is based, having expertise within the agency of the wider UK research landscape will be vital. This will aid the agency and the wider UK in addressing some of the grand challenges outlined above and in responding to and recovering from the Covid crisis, ensuring that nowhere is left behind while developing the next generation of talent in an agile and efficient environment.

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