#### **GuildHE response to:**

Future frameworks for international collaboration on research and innovation (*Adrian Smith call for evidence*)

**May 2019** 



### **About GuildHE & GuildHE Research**

- 1. <u>GuildHE</u> is the officially recognised representative body for smaller and specialist universities and colleges in the UK. We champion a diverse higher education sector. We represent 50 members, including multi-faculty universities, university colleges, further education colleges and specialist institutions from both the traditional and private ("not for profit" and "for profit") sectors. Member institutions include some major providers in professional subject areas including art, design and media, music and the performing arts; agriculture and food; education; maritime; health and sports. Our members prepare students for success in specialist careers. They offer living and learning in small academic communities and focus on delivering practical research for real-world impact.
- GuildHE Research is the research consortium for smaller and specialist higher education
  institutions. Our vision is of a consortium that engages the full diversity of our institutions, people,
  and places in research and innovation, and which successfully promotes and advocates for the
  recognition and support of excellent research wherever it is found.

# **Opening Comment**

- 1. We welcome the opportunity to offer our thoughts and suggestions in response to this Call for Evidence.
- 2. In our response we make the following main points:
  - a. International collaboration and innovation funding and support must focus on more than discovery research and embrace the full diversity of the UK R&D landscape wherever it is found.
  - b. At the same time, the UK should not focus exclusively on attracting only the "brightest and the best" to the UK. Support for emerging talent will deliver longer-term gains.
  - c. Opportunities and funding must support all academic disciplines, especially social sciences, arts and humanities.
- We strongly advocate that the UK seeks affiliation and participation in European research and innovation programmes. This is the most cost-effective way of maintaining relationships and collaborations.

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# **Introductory questions**

- 1. What is your name: Matthew Guest
- 2. What is your email address: matthew.guest@guildhe.ac.uk
- 3. Are you responding as an individual or on behalf of an organisation?

Yes - GuildHE

- 4. If responding on behalf of an organisation:
  - a. What is your organisation?
  - b. What type of organisation are you?

Other - Higher Education Representative Body

5. What region of the UK are you predominantly based in?

London - The main GuildHE Office is in London although we work across the UK

Other - Our member organisations are based all over the UK, from Dundee to Falmouth to Belfast. A majority of our members are based outside of London and the South East

6. We have obligations under freedom of information laws and there is more information on this below. For the purposes of these laws, would you like your response to be confidential? (Required)

No

#### **Areas of Interest**

We welcome written contributions on a wide range of issues relating to potential funding schemes. Areas of interest are:

- 1. Methods by which new funding arrangements can:
  - a. support research discovery of outstanding quality in all disciplines through international partnerships

Funding discovery research alone risks duplicating current UKRI funding programmes and as such does not meet the ambitions seen in current Horizon funding for example.

Current Horizon funding includes discovery funding as one of many objectives. However, and importantly, it is not the only form of funding and only one of a series of the Horizon 2020 Actions (see

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-a-call/what-vou-need-to-know\_en.htm)

Furthermore, focusing on discovery research risks only utilising part of the UK's research sector as it favours those institutions carrying out blue skies research rather than applied or translational research.

One of the benefits from current Horizon funding is that it creates successful collaborations between different types of UK institutions in addition to collaborators overseas.

Small and specialist universities are invited to take part in joint projects with research-intensive institutions due to their high-quality specific specialisms which ultimately help to address global challenges by winning European funding for the UK (for example, Bucks New University is involved in a project called <u>Waterspoutt</u> in a collaboration of several universities that otherwise would not exist). Discovery funding only will create barriers in developing such relationships by introducing fierce competition for a UK fund between UK institutions.

Any funding must not be awarded "purely on the basis of excellence (of the research project and track record)". It will make it especially hard for early career researchers (along with smaller research organisations) who do not have a research track record, yet have the potential for excellence, to participate. This risks narrowing the pool of researchers and institutions that can even apply for this fund.

One solution could be that excellent researchers/institutions with a track record are required to work with emerging and developing researchers and institutions.

Another solution would be to develop a pyramid of funding opportunities. These would start from small networking grants and fellowships (for example 'seed funding') then growing to larger collaborative longer-term projects to encourage the organic growth of collaborations.

There also needs to be more support from funders to establish robust due diligence processes at application and award stage in recognition that small institutions do not have in the in-house capacity or specialist knowledge to undertake some of this and it is an impediment to applying for such funding from smaller institutions.

We support the principle that the funding awards should be long-term - one of the benefits of the Horizon Programmes is that the Programmes last for seven years and grants are often multi-year providing strong foundations that allow world-leading research and innovation to be developed and to grow.

b. attract to the UK researchers of outstanding capability from around the world

Whilst we support the need to attract some "researchers of outstanding capability" we would recommend the more pressing need is to attract researchers who are still developing their areas of specialism and looking to become world-leaders. Investing in the potential of emerging experts rather than simply attracting one or two very well established stars is more likely to allow the UK to meet its longer-term 3% challenge. Schemes such as the Future Leaders Fellowships have the potential to be expanded to support this aim.

Smaller institutions in all parts of the country can benefit from the ERA Chair initiative which help them attract expert researchers. We would welcome alternatives that (in the same vein) encourage engagement of lower performing areas throughout the UK to be more productive in R&D and attractive to excellent international researchers (the Future Leaders Fellowships could be a way to facilitate this).

To attract international researchers to the UK, reciprocal schemes in which UK researchers are able to spend time in overseas institutions would help to cultivate inter-institution relationships and deepen links.

Schemes for early and mid-career researchers need to be designed to be more 'family friendly' i.e. shorter term - not everyone is in a position to leave their home country for an extended period and by excluding those researchers we may be missing out on supporting excellent research. The future immigration system must be welcoming to emerging talent and their families as well as the "research stars".

c. attract further R&D investment to the UK, thereby contributing to the Government's 2.4% agenda

Funding methods could play a role in supporting sectoral coordination in order to attract R&D investment into the UK. They could build upon activities outlined in the Industrial Strategy's Sector Deals.

Such funding does not need to be large scale. Relatively small amounts of money go much further in small and specialist institutions than in larger institutions. They

are already engaged in key industrial sectors but are often found in parts of the UK with lower economic output.

For example, to help the many regional SMEs that approach GuildHE members for research and innovation collaboration, schemes should be developed requiring a lower financial contribution from the company. These could be similar to Innovate UK's Innovation Voucher (which covers the full cost of a small research/innovation project). Whilst we understand Innovate UK experienced some difficulties with the Innovation Voucher scheme, these could potentially be avoided if the funding was paid to the university, on behalf of the company, rather than via the SME.

This could help stimulate growth at local levels and develop more attractive whole-place offers through which to attract overseas investment. Local and regional economies need to be strong first before international R&D investment follows (as the Golden Triangle evidences very well). Smaller universities are already playing roles in developing their economies. For example, see <a href="Bristol and Bath Creative R&D Cluster">Bristol and Bath Creative R&D Cluster</a> (funded by the AHRC) where Bath Spa University is a key partner.

Part of the new funding arrangements should look at supporting, replicating and enhancing such success throughout the UK.

- 2. The optimum balance of emphasis for any new funding arrangements in each of the following dimensions:
  - a. European collaboration, Overseas Development Assistance and global collaboration

European, global and ODA are all important. Wherever possible, it would make sense to build upon existing networks and collaborations in order to maximise their potential. This could include opening existing networks to a wider pool of organisations.

The SIN (Science and Innovation Network) offices, for example, could become an even more valuable network. If their capacity is increased, they could help connect the full diversity of UK researchers and institutions with those overseas. Many small and specialist HEIs carry out strong applied research which is important in helping the UK address global challenges. Better connections through an enhanced SIN would help address such challenges and increase UK performance.

This balance between the three areas is likely to change depending on the discipline and the challenge being addressed. Some challenges, such as climate change, require multidisciplinary, global collaboratory projects; others, such as the water supply in developing nations, may require a stronger ODA focus.

We would like to see more opportunities for GCRF and Newton to further develop follow-on funding schemes and opportunities to strengthen and deepen UK relationships with DAC-list country partners. Establishing these relationships is time-consuming and resource intensive. For smaller HEIs these awards are very

'top heavy' with due diligence processes. Further opportunities and support to develop projects would be welcomed.

We would recommend that funds such as Newton and GCRF are considered. GCRF in particular may offer lessons learnt about how to embed such funding. For European collaboration in particular, we recommend that the Brussels Hub model (being led by UUKi in collaboration with others including GuildHE) is carefully considered.

b. support for: outstanding individuals; blue-skies research; business innovation and research impact; and research facilities and infrastructure

Whilst it is important to support and reward outstanding individuals, any new fund would benefit from a balance between support directed towards these objectives and support for excellent and innovative ideas wherever they come from.

For example, in light of a dearth of funds available to support research impact and knowledge exchange in the absence of an existing Research Council grant, the varied streams of Horizon 2020 and European Structural Funds are utilised by researchers and institutions with emerging track records and no existing grants to support such work. This in turn supports the longer term goal of 3% investment in GDP.

c. research and innovation domains (research disciplines, business sectors etc).

Certain disciplines receive less domestic funding, such as **creative arts and humanities**. They receive injections of support from current European programmes. Such supports enables researchers in such fields to develop collaborations which provide access to international practices, collections, new ways of forming knowledge, and sites of interest.

Such disciplines are important to the UK both socially and economically. The creative industries sector is one of the fastest growing in the UK economy and as such rely on R&D with creative researchers and practitioners. The balance in funding arrangements must therefore be mindful of maintaining funding for all disciplines and to think beyond basic science or 'big discovery' research, especially if important growth sectors across the UK are to be fully supported.

Furthermore, humanities, socials science and creative disciplines often make 'hard' scientific innovations translatable into actual applications, particularly in development contexts or other cultures where a social custom might prevail over rational science.

Existing UK programmes like UKRPIF and Doctoral Training Centres should be supported on a smaller scale for applied research programmes and projects. This would enable smaller specialist institutions to complement the current fundamental science investments in critical areas so that we fill acknowledged gaps in our national research portfolio and create a new generation of applied research specialists, for industry and academia.

This is particularly important for **agriculture**. If we want to have a serious international role in research in agri-food disciplines this issue must be addressed. Investing only in large-scale institutions or those with a fundamental research track record, will not be determinants of success. It will need a more nuanced approach to seek out the smaller centres of applied research which could make a real difference to the UK's capacity to get innovation out of the lab and into the field, and to provide research training in practical techniques which are often missing from undergraduate and some postgraduate programmes in larger universities.

- 3. Methods and timescales for introducing any new funding arrangements for international collaboration, including those that:
  - a. reflect the ambitions of small and large businesses

We would urge that the Call for Evidence team has considered conversations with the Cities and Local Growth Unit and Innovate UK around this fund as there is a strong chance of crossover, confusion and competition as new schemes are developed.

We warn against only supporting "high risk, high return innovations". This approach goes against Industrial Strategy goals which talk about funding a wider range of innovative SMEs and not simply backing a couple of large winners and risks further isolating "left behind" places if only easy, 'larger winners' are backed.

Innovations can happen throughout the ecosystem, sometimes in places that do not require large grants but have the potential to increase productivity as, for example, is the case with many creative companies that are micro one or two person organisations. They still have the potential to increase economic returns at local and regional levels which is as important for the overall economy as backing larger scale 'winners'.

b. foster new systems of international peer review and funding

We question whether the UK is in a position to suggest new systems of international peer review. Is this peer review only related to funding?

Timescales for introducing new funding and/or new funding arrangements are important. Short turnaround times mean that only the most intensively resourced HEIs and businesses are able to respond to opportunities.

Opportunities and funding will need to communicated in advance so that potential collaborations can be explored. Even if application deadlines are tight, announcements about funding should be made in advance.

Furthermore, announcements should be timed so as not to collide with other major aspects in the R&D system - for example, those relating to REF or new domestic funding schemes. Without careful timetabling, announcements may not be picked up by those working in smaller organisations. For example, many small and specialist institutions have very small research offices and may not have the

capacity to disseminate and support new opportunities if they fall at particular pressure points.

4. The roles of Government, UKRI, National Academies and other organisations in defining the agenda for European and international collaboration and administering any new funding arrangements for such activities.

It is beneficial for the research and innovation system of the UK to engage with the full diversity of potential institutions and researchers which can contribute. We suggest that whilst the academies and research councils are well versed on the potential of certain parts of the HE sector, especially research-intensive institutions, they have less familiarity with other elements, such as creative arts specialist institutions, and specialist research centres that exist in teaching-intensive multi-faculty universities (Sport and Exercise Science being just one example).

We therefore encourage consultation with the sector, the involvement of Research England, businesses, and subject and professional bodies to achieve a breadth of perspectives from all disciplines, and coordination with others working in international development and engagement, such as the British Council, to understand what works well across multiple contexts, when defining the agenda; without doing so there is a risk that opportunities will be missed.

In terms of administration, it is an oft-reported feature of Horizon and FP9 schemes that the bureaucracy of grants is time consuming and complex. We recommend that grant application systems are based on those routinely used in the UK, and that reporting is proportionate to the extent of the funding and expectations clearly defined. We also recommend that positive elements from European funding programmes that ensure funding reaches intended recipients is maintained.

5. Existing evidence on the efficiency and effectiveness of funding for international collaborations.

New funds should have a year zero to allow them to be understood. For example, the Newton Fund arrangements did not include this vital year of preparation before opening up calls. This resulted in unallocated grants and those that were awarded going to 'usual suspects' with the resource and infrastructure to react to very short deadline, missing the opportunity to maximise on excellent work being undertaken elsewhere in the R&D system.

GCRF provides greater scope to apply arts research methodologies than Horizon Europe. This is due to thematic priorities aligning and scale and scope of calls being more manageable for a smaller institution.

Another lesson from GCRF is that GCRF QR is relatively low for many small and specialist institution's however there is a big and therefore very difficult jump to GCRF calls worth e.g. £2m. We recommend that initiatives are designed to fill the gap in between.

6. Any other issues relating to this work that you wish to bring to our attention

We strongly advocate that the UK seeks affiliation and participation in European research and innovation programmes.

There is a risk that developing new international collaboration initiatives replicate funding and work already being carried out by UKRI. For example, promoting excellence in research and innovation is already a UKRI main objective along with attracting world-class talent to the UK. Horizon 2020 focuses much more on pan-European cooperation rather than improving one country's performance.

If government wishes to replicate this type of funding (and we would argue there has been a decades-long exclusive focus on fundamental research), we would recommend increasing existing funding streams rather than creating new, competing funds as this would be an ineffective use of public funding and civil service time.

We add that there should be a principle of looking at how any international or European Alternative Framework works with other research and innovation policies such as the UK Shared Prosperity Fund and Industrial Strategy funding. Government has the opportunity to join up thinking around these different schemes; at present, it risks unintentionally creating complex, competitive and disjointed silos.

### **Final note**

GuildHE would be delighted to support the work of the Call for Evidence Team and government in any way that we can.

Matthew Guest Rachel Persad

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23 May 2019