

briefing

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EU funding for research and innovation 2014-2020

Seizing the opportunities for NHS organisations

Key points

- New EU research and innovation funding from Horizon 2020 offers a big opportunity for the NHS.
- The proposed funding is timely in light of increased attention on innovation for better patient outcomes.
- There is significant potential for academic health science networks (AHSNs) to act as regional drivers to promote these opportunities.
- Previous experience has proved that NHS organisations can be successful partners and leaders of projects, but there is now scope for NHS organisations to access EU funds in a more systematic way.

Research and innovation have never been so high on the European Union (EU) agenda. Horizon 2020, the new European funding programme for research and innovation for the period from 2014 to 2020, aims to improve access to finance for research and innovation so that innovative ideas can ultimately be turned into products and services, creating growth and jobs in Europe.

The UK, particularly its academia, has significant experience of accessing EU research funding. UK organisations are the largest beneficiary of EU health research funds, having secured more than €670 million from the Seventh Framework Programme (FP7) – the predecessor of Horizon 2020. There is, however, scope for greater NHS involvement and access to these funds, and the new approach introduced in the programme will facilitate NHS participation. This *Briefing* gives an overview of Horizon 2020 and of the opportunities it offers to the NHS.

Background

Horizon 2020 is the EU's overarching, multi-disciplinary research and innovation funding programme that will run from 2014 to 2020. It will see the EU contribute more than €70 billion over the coming seven years to support the

EU's position as a world leader in science, help secure industrial leadership in innovation, and help address major societal challenges.

The societal challenges addressed by the programme cover seven key themes:



- health, demographic change and wellbeing
- food security, sustainable agriculture, marine and maritime research, and the bio-economy
- secure, clean and efficient energy
- smart, green and integrated transport
- climate action, resource efficiency and raw materials
- inclusive, innovative and reflective societies
- secure societies.

Horizon 2020 is the most relevant EU funding programme for the NHS over the next seven years, with opportunities throughout the different areas mentioned, and in particular the theme on 'health, demographic change and wellbeing'. This has an indicative budget of almost €7.5 billion, offering significant financial support for associated European research and innovation work.

Compared to FP7, the rules to participate in the new programme have been simplified and the timeline for successful projects to be selected and financed by the European Commission (EC) has been shortened, making Horizon 2020 more accessible to the NHS.

More information on Horizon 2020 can be found at <http://ec.europa.eu/research/horizon2020>



Horizon 2020 funding for health and opportunities for the NHS

Health research and innovation is a big priority for the EU, which has placed health at the top of the 'societal challenges' strand of Horizon 2020.

The 'health, demographic change and wellbeing' theme will cover

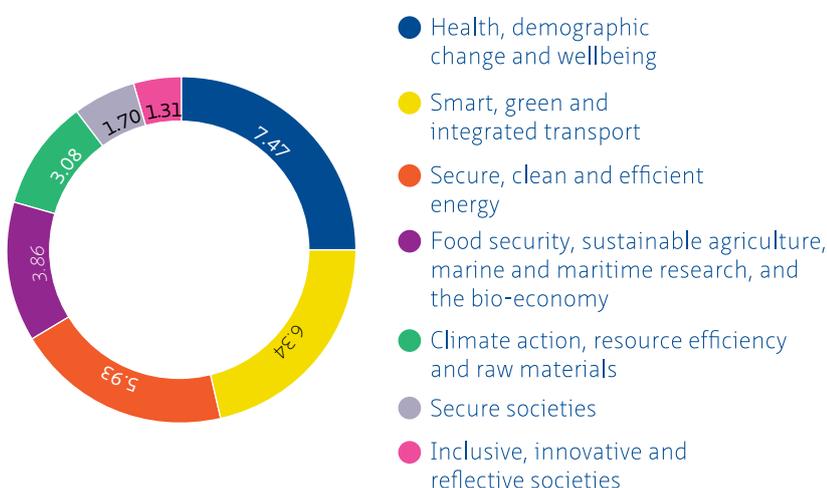
activities from research to market, with a new focus on impact and innovation-related activities. Through Horizon 2020, the EC is promoting a more challenge-driven approach, encouraging the involvement of clinicians and patients and bringing together resources and knowledge across different fields, technologies and disciplines.

A key new focus of the 'health, demographic change and wellbeing' theme is that research and ideas funded by Horizon 2020 need to be translated into practice and to demonstrate clear advantages to patients. This means that NHS organisations are in an excellent position to coordinate and partner in research and innovation projects on topics that are of clear interest to healthcare professionals, and which will have a real impact on population health and wellbeing.

The establishment of AHSNs in England is a timely opportunity to drive further NHS involvement in Horizon 2020. The greater focus Horizon 2020 places on testing and commercialisation of research fits well with the AHSNs' role in driving regional collaboration across health, academia and industry. There is potentially a key role for AHSNs in leading, coordinating and disseminating these funding opportunities.

"AHSNs can be a key driver for communicating and coordinating funding opportunities arising from Horizon 2020. Our role will be to foster collaboration and to develop the networks and experience that already exist in the region on the European stage."

Proposed funding for societal challenges addressed by Horizon 2020 (€ billion)



We are excited to work with the NHS European Office on exploring the new opportunities for EU funding on innovation in health."

Dr Liz Mear, Managing Director, North West Coast AHSN and Chief Executive, The Walton Centre NHS Foundation Trust.

Priority topics for funding in 2014-2015

The EC, as the manager of these EU funds, has prepared a work programme for the first two years of implementation of Horizon 2020's theme on 'health, demographic change and wellbeing'. During 2014 and 2015, funding will be available for seven priority action areas in the 'personalising health and care' package, which is of most interest for NHS organisations. The seven priority action areas are:

- understanding health, ageing and disease
- effective health promotion, disease prevention, preparedness and screening
- improving diagnosis
- innovative treatments and technologies
- advancing active and healthy ageing
- integrated, sustainable, citizen-centred care
- improving health information, data exploitation and providing an evidence base for health policies and regulation.

A total of 34 topics are specified under these seven areas. The EC is very clear about the impact it expects from each

topic. The projects need to fit in well with the anticipated results of each topic area.

"Taken together, work to be supported by these topics will improve understanding of the causes and mechanisms underlying health, healthy ageing and disease; improve ability to monitor health and to prevent, detect, treat and manage disease; support older persons to remain active and healthy; and test and demonstrate new models and tools for health and care delivery. In doing so, support will be provided to research and innovation performers, including significant, tailored support to small and medium enterprises."

European Commission: Horizon 2020 Work Programme, Health, demographic change and wellbeing 2014-2015.

The total budget available over the next two years for this work programme is around €1.2 billion, and the EC is due to launch its first calls for proposals for the 2014 topics in December 2013. The calls for proposals for the 2015 topics are expected to be launched in Autumn 2014.

Key aims of this work programme will be to improve health outcomes, reduce health inequalities and to promote active and healthy ageing by supporting the translation of research findings into hospitals and other health and care settings. This means that it has never before been so relevant for NHS organisations to be involved in planning and implementing EU research and innovation projects and in translating the results into practice.

A table giving the details of each topic specified under the seven priority action areas for 2014-2015 can be found online alongside this *Briefing* at www.nhsconfed.org/eupublications

Other initiatives funded under the health theme

Funding for the Innovative Medicines Initiative (IMI), European and Developing Countries Clinical Trials Partnership (EDCTP) and Active and Assisted Living (AAL) also falls under the 'health, demographic change and wellbeing' theme of Horizon 2020. NHS organisations could also be involved in these more specific initiatives of Horizon 2020. It should be noted that they have separate processes for funding projects to the information provided in this *Briefing*. For more information on how to get involved in these initiatives, please contact the NHS European Office.



The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative between the EU and the European Federation of Pharmaceutical Industries and Associations (EFPIA), aiming to speed up the development of better and safer medicines for patients. IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe. For more, see www.imi.europa.eu

Case study: TRUST

Sheffield Teaching Hospitals NHS Foundation Trust is the coordinator of the TRUST project that aims to train urology scientists to develop treatments.

The TRUST project is an inter-disciplinary training network involving eight European university institutes and three enterprises that have a wide variety of complementary expertise in urology. Through the TRUST project, researchers have received training from different leading European research institutes on multiple complementary disciplines that empower them to explore and unravel the mechanisms underlying Overactive Bladder Syndrome, and to develop novel diagnostic, preventative and treatment strategies.

The project received 100 per cent funding of around €3.2 million from Marie Curie Actions. More details on the project can be found at www.eustrustproject.org

“EU funding has been incredibly helpful in supporting the TRUST training network. I would strongly encourage NHS organisations to take a lead in future EU research and innovation grants. Based on our experience, it is important to allow plenty of time for the bid preparation and to choose your partners carefully – they must be enthusiastic, committed to the project and capable of taking the aims of the project forward.”

Michelle Battye, EU Project Coordinator for TRUST



The Active and Assisted Living (AAL) Joint Programme (formerly Ambient Assisted Living) is a funding framework that aims to create better conditions of life for the elderly and to strengthen the industrial opportunities in Europe through the use of information and communication technology (ICT). It supports multi-national projects (with at least three countries participating) that involve small and medium enterprises (SMEs), research bodies, health and care providers and user organisations (representing elderly people). For more, see www.aal-europe.eu

Other funding sources from Horizon 2020

Although the ‘health, demographic change and wellbeing’ theme offers the most obvious funding opportunities for NHS organisations from Horizon 2020, health organisations will be able to participate in other strands and themes of the programme. It would be possible, for example, to see a project on nanotechnology and health being funded through another strand of Horizon 2020. If you have an idea for a research and innovation project that does not fit with the priority areas or topics of the ‘health, demographic change and wellbeing’ theme, it may be worth contacting the NHS European Office before dismissing Horizon 2020.



Marie Curie Actions

Marie Curie Fellowships are European research grants available to researchers regardless of their nationality or field of research. In addition to providing funding for specific research activities, the scheme allows scientists to gain experience abroad and/or in the private sector, and to complete their training with competences or disciplines useful for their careers. Britain has had significant success with the scheme over the past six years, receiving almost €950 million in funding covering nearly 3,500 British institutes in a range of subjects. The existing themes of Marie Curie Actions under FP7 will for the most part continue in Horizon 2020, although the overarching titles are changing slightly. The

Case study: NEO-CIRC

The NEO-CIRC project is coordinated by Brighton and Sussex University Hospitals NHS Trust. The project has two aims: to develop and study an age-appropriate formulation of the drug Dobutamine for newborn babies; and to develop a new definition of neonatal shock. Dobutamine is a drug that is given to newborn babies with circulatory failure after birth. Currently the drug is given off label and off licence.

The project received almost €6 million, around 77 per cent of the overall project budget, from the FP7 health programme. It brings together experts and partners from a variety of sectors including healthcare providers, universities, academic institutes and commercial companies from six European countries, plus Turkey and the USA. More information on this project can be found at www.neocirculation.eu

“In our experience, we would encourage NHS organisations to be well connected to national and international potential partners before/when applying for EU funds.”

PD Dr Heike Rabe, Senior Clinical Lecturer, Brighton and Sussex Medical School, and Honorary Consultant Neonatologist, Royal Alexandra Children’s Hospital

aims of the scheme will remain the same and the budget will be approximately €6 billion. Fellowships, research exchanges and mobility programmes on clinical research are welcomed under this programme, which is structured around:

- **Early stage researchers**
Doctoral and initial training of researchers proposed by international networks of organisations from public and private sectors
- **Experienced researchers**
Individual fellowships for most promising experienced researchers to develop their skills through international or inter-sector mobility
- **Exchange of staff**
International and inter-sector cooperation through the exchange of research and innovation staff
- **COFUND**
Co-funding of regional, national and international researcher mobility programmes.

The COFUND scheme is probably of most interest to the NHS. The first call for proposals for the COFUND scheme is anticipated in April 2014. For more information, please see <http://ec.europa.eu/research/mariecurieactions>

Getting a bid off the ground

Simplified rules

While the current generation of funding programmes has lots of different rules, Horizon 2020 applies the same rules everywhere. That means it should now be easier to apply to and participate in projects. The reimbursement of project costs will be simpler with a single reimbursement rate for most projects. That means less paperwork and fewer audits.

In FP7, it would be normal to expect at least a year to get a decision from the European Commission about a project. However, under Horizon 2020, the time between sending an application and receiving a grant should be limited to eight months.

Nevertheless, it should be stressed that European funding applications will still require a significant amount of time to develop, and the process can be challenging and competition will be strong. NHS organisations considering Horizon 2020 funding may be best advised to join project partnerships as a participant if they do not have previous experience of EU funds, rather than acting as the lead coordinator.

Calls for proposals

Funding is issued through open calls for proposals with strict deadlines for submission of projects. All projects are submitted electronically. The website dedicated to the electronic administration of EU research and innovation projects is <http://ec.europa.eu/research/participants/portal>. For some topics there will be a two-stage call, where the first stage will involve submission of a short proposal/concept note. Successful candidates will then be invited to submit a full proposal. Other topics will be only one stage,

requiring a full project proposal at the outset.

All organisations participating in a project will need a 'participant identification code' (PIC) to be used in project submissions. The PIC can be obtained by registering the organisation online.

Partnerships

Successful European projects are built on a strong level of collaboration. Projects must involve at least three partners from three different EU member states or associated countries (Switzerland, Israel, Norway, Iceland, Liechtenstein, Turkey, Croatia, Macedonia, Serbia, Albania, Montenegro, Bosnia and Herzegovina, Faroe Islands, Moldova). Other countries such as the USA have a bilateral agreement with the EU and can also receive funds.

Identifying suitable partners is therefore highly important but can often be challenging. The priority should be the quality of the partnerships, not the quantity. NHS organisations should be wary of involving too many project partners for the sake of obtaining high scores in the proposal evaluation, without a clear idea of how they can contribute to the success of the project and take the results of the project further. Along with universities and health institutions, industry is an increasingly important partner for projects. The involvement of SMEs is encouraged where possible, as the EU sees these organisations as the main drivers of economic growth. The trick in building a project consortium is to have a number of



The European Innovation Partnership on Active and Healthy Ageing is a non-funding, collaborative partnership scheme where key stakeholders (end users, public authorities, industry and so on) come together to foster innovation in products, processes and services for elderly people. The scheme has awarded 31 European regions with one to three stars in recognition for the work they carry out in their own region to promote innovation in health and care systems tailored to the needs of an ageing population – they are called European reference sites on active and healthy ageing. England currently has two reference sites: Yorkshire and Humber (julia.coletta@anhst.nhs.uk) and Liverpool (andy.hull@liverpoolccg.nhs.uk).

Active and Healthy Ageing is a key priority of the 'health, demographic change and wellbeing' theme of Horizon 2020. These regions have experience of research and innovation and working with a broad European network. They are potentially key contacts and collaborators for EU research and innovation projects, particularly those focused on active and healthy ageing. Northern Ireland, Wales, Scotland and Ireland are also European reference sites. For more, see <http://ec.europa.eu/active-healthy-ageing>

SMEs whose main business activity will directly benefit from the project results. In addition, companies that are used to being involved in research will understand how to actively participate in the project.

If you are looking for advice on how to find a suitable partner organisation for your project, please contact the NHS European Office.

Evaluation criteria for project proposals

The proposals submitted will be evaluated on the equal basis of scientific and technical quality, impact and quality and efficiency of the implementation. In terms of impact, it is very important for

applications to demonstrate how the results of the project clearly fit with the expected results of the call for proposals. The project must also identify from the outset how it will contribute to the overall challenges defined by the EU. Competition for these funds is high with only projects with the highest evaluation scores receiving funding.

Financing

In FP7, the general rule was that the beneficiary (whether a public authority, SME or research entity) also contributed to the cost of the project. However, for Horizon 2020 most research and innovation projects can be funded up to 100 per cent by the EC.

Case study: DevelopAKUre

Royal Liverpool and Broadgreen University Hospitals NHS Trust coordinates a network that received a maximum 15/15 score from the EC's evaluation committee for their project proposal. The DevelopAKUre programme is a major international clinical trial supported by a European network, including 13 hospitals, pharmaceutical companies and consultancies, universities, biotech companies and national alkaptonuria (AKU) patient groups. The countries involved include the UK, France, Netherlands, Slovakia, Denmark, Italy and Sweden.

Research has indicated that nitisinone may be effective in treating AKU. The DevelopAKUre clinical trial programme aims to provide proof of the effectiveness and the safety of nitisinone in treating AKU, the results of which will allow a case to be made to the European Medicines Agency for marketing authorisation. The funding secured for this programme includes €6 million from the European Commission with an additional €5 million co-financing from project partners. For more information, visit www.developakure.eu

"It is important to understand that the European Commission will only fund research that has sufficient scale and importance to be undertaken at European level, and so is necessarily collaborative. Researchers need to understand the issues from a pan-European perspective, and not solely looking at UK-based issues."

Julia West, Deputy Director of Research and Development, Royal Liverpool and Broadgreen University Hospitals NHS Trust

What the NHS European Office can do to support your bid

The NHS European Office can assist NHS organisations wishing to apply for EU funds. We can:

- look at a project concept note and help assess whether it would be a potential fit for European funding under Horizon 2020 or other EU programmes
- support your organisation in establishing appropriate European partnerships
- help answer technical and administrative questions on proposal writing and grant management procedures

- help develop capacity in your organisation to apply for and manage EU funds, for example by organising local awareness raising events on EU funding opportunities, or by facilitating training.

The NHS European Office works closely with the Technology Strategy Board (TSB), which is the main agency responsible for promoting Horizon 2020 in the UK, and in facilitating UK applications. The NHS European Office is their lead partner on healthcare. The new TSB Horizon 2020 website is <http://h2020uk.org>. The TSB houses a national contact point for the health theme of

Horizon 2020. The current contact point is Octavio Pernas at octavio.pernas@tsb.gov.uk

For any questions on projects and EU funding opportunities, or to discuss any of the issues covered in this *Briefing*, please contact sarah.godman@nhsconfed.org (tel: +32 2 227 6448) or michael.wood@nhsconfed.org (UK line: 020 7799 8668). Please also see our page on Horizon 2020 at www.nhsconfed.org/Horizon2020

The NHS European Office

The NHS European Office has been established to represent NHS organisations in England to EU decision-makers. The office is part of the NHS Confederation. EU policy and legislation have an increasing impact on the NHS as a provider and commissioner of healthcare, as a business and as a major employer in the EU. Our work includes:

- monitoring EU developments which have an impact on the NHS
- informing NHS organisations of EU affairs
- promoting the priorities and interests of the NHS to European institutions
- advising NHS organisations of EU funding opportunities.

To find out more about us, and how you can engage in our work to represent the NHS in Europe, visit www.nhsconfed.org/europe or contact european.office@nhsconfed.org

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