



UK Research
and Innovation



Expanding Horizons

Unlocking opportunities for research and innovation

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Foreword from UKRI International Champion

Welcome to the inaugural edition of Expanding Horizons, a magazine dedicated to celebrating the UK's vibrant contributions to Horizon Europe and the fostering of stronger ties within the research and innovation (R&I) community.

This past year marked a significant milestone for the UK, as we embarked on our first full year as an associated country to Horizon Europe. It has been a year of achievements, challenges, and opportunities—a time to build bridges and rethink what we can accomplish together.

Through Horizon Europe, researchers, innovators, universities, institutes, and industry partners have come together to tackle global challenges, advance scientific discovery, and drive transformative innovation.

In this issue, we aim to highlight the remarkable impact of UK participation in Horizon Europe, showcasing success stories that underscore the value of collaboration and the resources available to support you in this journey. From exploring ground-breaking projects to sharing best practices, we celebrate the breadth and depth of the R&I community's engagement with the EU.

We recognise that navigating the complexities of international collaboration can feel daunting at times. That is why we are committed to ensuring you feel informed, supported, and confident about engaging with Horizon Europe.

From inspiring case studies to practical guidance, this magazine offers a platform to share experiences and insights, helping you to build networks that strengthen our collective efforts.

Together, we are fostering innovation that transcends borders, delivering societal and economic benefits. I invite you to explore the stories within, join the conversation, and be inspired by the power of collaboration.

Christopher Smith



“Here’s to a bright future for UK research and innovation, working in harmony with our European and global partners”.

Warm regards,

Christopher Smith

UKRI International Champion

Introduction to Horizon Europe and the three pillars

Horizon Europe is the European Union's flagship funding programme for research and innovation, boasting an impressive €95.5 billion budget for the 2021–2027 period. This ambitious programme is designed to tackle some of the world's most pressing challenges, including climate change, while advancing the UN's Sustainable Development Goals and bolstering Europe's global competitiveness and economic growth.

The programme is a catalyst for collaboration, fostering partnerships that enhance the impact of research and innovation in shaping and implementing EU policies. Horizon Europe's initiatives drive progress on global challenges by creating, sharing, and applying cutting-edge knowledge and technologies.

Beyond its scientific and technological contributions, the programme delivers tangible benefits by generating jobs, nurturing talent, boosting industrial competitiveness, and maximising the returns on investment across an integrated European Research Area.

Horizon Europe is structured around three main pillars, reflecting the EU's current research and innovation priorities, with an additional transversal element dedicated to widening participation and strengthening the European Research Area. These pillars ensure a holistic approach to advancing knowledge, fostering innovation, and driving sustainable development across Europe and beyond.

Find out more on how UK organisations can participate in Horizon:

Visit the UKRO website and **read their comprehensive factsheet**

Visit the **UK Horizon Hub** website

Sign up to the UK National Contact Point (NCP) **Newsletters**



WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

Understanding Pillar 1: Excellence in Science

Pillar 1 of Horizon Europe is dedicated to promoting scientific excellence and attracting top-tier researchers and innovators to Europe, strengthening the continent's global competitiveness. This pillar aims to empower and support the next generation of science, technology, and innovation, ensuring Europe remains at the forefront of cutting-edge research.

Central to Pillar 1 is its focus on fostering the creation and dissemination of scientific excellence, along with high-quality knowledge, technologies, methodologies, and skills. Additionally, it prioritises access to and the development of world-class research infrastructures while advancing the training and mobility of researchers. The majority of Pillar 1 follows a bottom-up approach, allowing applicants the flexibility to define their own research projects without being restricted by pre-determined topic areas.

What Does Pillar 1 Fund?

Pillar 1 reinforces the EU's scientific leadership through three key programmes: the European Research Council (ERC), the Marie Skłodowska-Curie Actions (MSCA), and the Research Infrastructures programme.



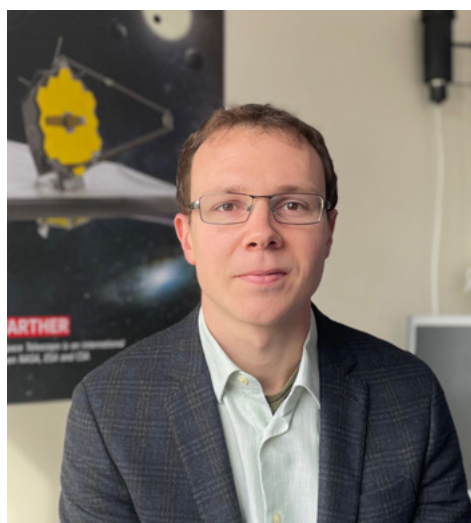
European Research Council (ERC)

The ERC funds pioneering, ambitious research to push the boundaries of knowledge. By offering flexible and attractive funding, the ERC empowers talented individual researchers and their teams from anywhere in the world to undertake ground-breaking projects in Europe, including the UK. With scientific excellence as its sole criterion, the ERC ensures support for the most innovative and promising research endeavours.



Marie Skłodowska-Curie Actions (MSCA)

MSCA focuses on supporting and training the individuals and institutions driving research and innovation. This programme funds outstanding doctoral and post-doctoral training initiatives, equipping researchers with advanced knowledge and skills while fostering mobility across borders, sectors, and disciplines. MSCA also works to improve training and career development systems, leaving a lasting impact on research institutions.



Research Infrastructures Programme

This programme provides Europe with sustainable, world-class research infrastructures that are accessible to top researchers from across Europe and beyond. By reducing fragmentation among national and regional infrastructures, it enhances collaboration and innovation. Projects supported by this programme contribute to building an integrated research infrastructure landscape that accelerates scientific discovery.



INNATE

A Horizon Europe grant is enabling the University of Warwick to take part in a project that will transform our understanding of planets like Neptune and may even change our view of how life evolved.

Since the first confirmed detection of an exoplanet in 1992, thousands of planets outside our own solar system have been observed. Astronomers are learning more about distant stars and the planets that orbit them, but questions remain about how they form.

A project led by University of Warwick and including the universities of Geneva, Bern and Porto could help fill a gap in our understanding. Investigating the Nature and Origins of Exoplanets in the Neptunian Desert (INNATE) was set up to find out more about planets orbiting exceptionally close to their stars. These planets resemble Neptune in our own solar system, but are far hotter.

Until recently astronomers thought these were rare because the conditions inside this part of a planetary system (the Neptunian Desert) are harmful to giant, gassy bodies like Neptune.

David Armstrong, INNATE's Principal Investigator, explained:

“Inside the Neptunian desert planets are very close to their host star, which evaporates a lot of their atmosphere. This removes light gases, and the planet shrinks in size, starting to look a bit smaller and rockier than Neptune”.



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A change in thinking on how planets are formed

Or so we thought. David continued:

Looking at the data from NASA's **TESS Exoplanet Mission**, we've started seeing an increasing number of planets cropping up in the middle of this desert. It's only a handful, so it raises the question: are these particularly strange objects that have somehow dodged these processes we thought were important, or will we discover they're part of a whole population that's followed a different, unexpected route of planet formation?

The answer to that question matters not only for our understanding of Neptune-like planets but for planets like ours, too. David concluded:

If we've misunderstood a process like photo-evaporation, then that could change our view of how planets like Earth are formed.

And if it turns out that astronomers were mistaken, our model of how life evolved (and could evolve elsewhere in the universe) might have to change.



David Armstrong, INNATE's
Principal Investigator

Smooth path to accessing funding

David won a grant for INNATE from the European Research Council's Starting Grant, this was supported through UKRI's Horizon Europe Guarantee while the UK were in the period of discussing association to the programme. David said:

For us the application was very smooth and involved mostly documents we had from our original application.

Horizon Europe is one of the best routes to large research grants and open science research grants in terms of having freedom to set your own topic.

“We’ve started seeing an increasing number of planets cropping up in the middle of this desert”.

CASE STUDY

Uniting Europe's Life Science Data for a FAIRer Future

ELIXIR is an intergovernmental organisation bringing together life science data resources across Europe.

By integrating key resources including databases, software tools, FAIR data services, training materials, cloud storage and supercomputers, ELIXIR ensures that researchers can access and share critical life sciences data.

At its core, ELIXIR is an interconnected infrastructure, fostering collaboration, expertise exchange, and best practices across the continent. With twenty-one ELIXIR Nodes across Europe established to date, the organisation plays a vital role in advancing life science research.

ELIXIR's headquarters are in the UK, on the Wellcome Genome Campus in Hinxton. ELIXIR's UK Node is led by the Earlham Institute and the University of Manchester and brings together 28 British research performing institutions.

Horizon Europe Funding

ELIXIR was included on the European Strategy Forum for Research Infrastructures (ESFRI) roadmap in 2006. This was the first detailed plan, developed by Member States and supported by the EC, which planned long-term investments in research infrastructures across Europe.

As well as obtaining funding from Member States ELIXIR have received EU funding since 2007, starting with a 'preparatory phase' grant supporting its establishment. Under Horizon 2020, they were recognised as a critical infrastructure and awarded €20M through ELIXIR-EXCELERATE (2015-2019). This funding played a pivotal role in ELIXIR's transition to a fully operational research infrastructure. Other Horizon 2020 projects facilitated bioinformatics services development and collaboration with stakeholders.

With Horizon Europe funding, ELIXIR continues to grow, strengthening its bioinformatics services, enhancing international collaboration, and increasing its networking and visibility beyond national funding streams.

The Power of International Collaboration

ELIXIR's success is deeply rooted in its ability to forge meaningful international partnerships. By aligning standards, avoiding duplication, and pooling expertise, ELIXIR has developed a unified European research infrastructure, demonstrating the global impact of ELIXIR's Nodes.

ELIXIR remains committed to seeking further Horizon Europe and international funding to support and expand its research infrastructure and would encourage any organisation considering Horizon Europe funding to:

- Align EU projects with the organisation's long-term strategic goals
- Ensure necessary skills within the organisation and build capacity for leadership
- Involve external stakeholders to ensure projects are relevant, well-supported and widely adopted

Research Infrastructures Programme

Horizon Europe's Research Infrastructures programme funds ESFRI infrastructures like ELIXIR, supporting coordination, new services, inter-infrastructure connections, and contributions to the European Open Science Cloud (EOSC).

ELIXIR has received funding since FP6, coordinating life sciences projects which include:

- CORBEL, EOSC-LIFE and leading the BY-COVID project, which facilitated infectious disease data provision during the COVID-19 pandemic
- 'INFRADEV-3' projects, including ELIXIR-CONVERGE and ELIXIR-STEERS, which support infrastructure operations and membership expansion, strengthening ELIXIR Nodes for national and international research communities

Beyond the Research Infrastructures programme, ELIXIR also engages with Digital Europe and EU4Health funding.

Building a Strong International Consortium

Securing research infrastructure funding is about more than just a strong application—it requires strategic alignment, expert partnerships, and robust project management. ELIXIR's approach is centred on:

- Prioritising projects aligned with its five-year scientific plan, ensuring long-term sustainability and a European or global impact
- Providing strong project management expertise, particularly in post-award phases
- Collaborating with National Contact Points (NCPs) and European Commission Project Officers to fine-tune proposals and navigate the funding landscape
- Leveraging external project management agencies when extra capacity is needed

For projects where ELIXIR is the sole infrastructure in a proposal, it selects partners from its ELIXIR Nodes network based on expertise.

Many of ELIXIR's EU-funded projects are multi-infrastructure collaborations, where ELIXIR relies on its established European and global networks, which have strengthened relationships with academia, industry, and complementary research infrastructures over 11 years.



The ELIXIR-STEERS project team at its annual meeting – Brussels, January 2025

Funding Opportunities Under the MSCA

The Marie Skłodowska–Curie Actions (MSCA) offer a range of funding opportunities designed to foster international, inter-sectoral, and interdisciplinary mobility, enabling researchers and institutions to thrive across all areas of research and innovation. With its “bottom-up” approach, MSCA supports projects across all disciplines while enhancing training and career development systems to create lasting structural benefits for institutions.

MSCA opportunities are open to researchers and innovation professionals from all types of organisation, including universities, research institutions, businesses, socio-economic organisations, and research infrastructures. Applications are welcomed from participants in EU Member States, Horizon Europe Associated Countries, and other countries.

Mentoring a fellow begins right from the application stage. Discover how a chance meeting between Dr Martin Odler and Professor Andrea Dolfini at a conference paved the way for a thriving partnership, fostering mutual learning and valuable benefits.

Watch the video on YouTube.



KEY AREAS OF FUNDING

MSCA Doctoral Networks

Doctoral Networks (DN) are designed to support the training of a new generation of creative, entrepreneurial, and innovative researchers. These programmes, implemented through partnerships of universities, research institutions, businesses, SMEs, and other socio-economic actors, provide comprehensive doctoral training across Europe and beyond.

Co-Funding of Regional, National, and International Programmes (COFUND)

COFUND aims to stimulate regional, national, and international programmes by fostering excellence in researcher training, mobility, and career development. This scheme provides co-funding for new or existing multi-annual doctoral or fellowship programmes, emphasising sustainable structuring effects and the dissemination of best practices.

MSCA Postdoctoral Fellowships

Postdoctoral Fellowships (PF) enhance the creative and innovative potential of post-doctoral researchers through advanced training and mobility across international, inter-sectoral, and interdisciplinary settings. The programme also supports researchers returning to their careers after a break, reintegrating into Europe after time abroad, or collaborating with the non-academic sector to diversify their skills.

While the UK was in the process of associating with Horizon Europe, UKRI supported successful MSCA applicants through the Horizon Europe Guarantee.



MSCA Postdoctoral Fellowships supported Dr Sarah Dimeloe in gaining the skills and mentorship she needed to find her own research niche and establish her own research group

Watch Sarah's video on YouTube.



Dr Marianna Marchesi, who successfully transitioned from industry - as an architect - to an academic career as a UKRI Guarantee Postdoctoral Fellow. **See how a fellowship helped Marianna overcome challenges and fulfill her dream.**

MSCA Staff Exchanges

Staff Exchanges (SE) encourage international, inter-sectoral, and interdisciplinary collaboration through research and innovation staff exchanges. This scheme facilitates knowledge sharing and advances scientific discovery by supporting exchanges between Europe and third countries, as well as between academic and non-academic partners. It is open to researchers at all career stages and includes administrative, managerial, and technical staff, fostering collaboration across sectors and disciplines.



Discover how Svitlana Surodina's participation in two MSCA Staff Exchange projects supported her company's long-term innovation goals and collaboration with academics. **Watch Svitlana's video on YouTube.**

Exploring Pillar 2: Global Challenges and Industrial Competitiveness

Pillar 2 of Horizon Europe is designed to address global challenges and enhance industrial competitiveness through a collaborative and interdisciplinary approach. Research and innovation activities under this pillar are structured into six clusters, each fostering synergies across sectors, policies, borders, and disciplines. These clusters work collectively and independently to maximise impact and drive progress on pressing societal and environmental issues.

The Six Clusters of Pillar 2

Health: Focused on advancing healthcare solutions and tackling health-related challenges to improve the well-being of populations globally.

Culture, Creativity and Inclusive Societies: Aims to strengthen social cohesion and promote cultural and creative innovation, fostering inclusive and resilient communities.

Civil Security for Society: Addresses security challenges, including fighting crime and terrorism, protecting borders, disaster resilience, protecting critical infrastructure, cybersecurity, and crisis response, to ensure safer societies.

Digital, Industry & Space: Supports advancements in digital technologies, industrial competitiveness, and space technologies and data, driving innovation and growth.

Climate, Energy & Mobility: Focuses on achieving climate neutrality, transitioning to clean energy, and creating sustainable, smart mobility solutions.

Food, Bioeconomy, Natural Resources, Agriculture & Environment: Promotes sustainable practices in agriculture, resource management, and environmental protection to ensure global food security and ecological balance.

Each cluster within Pillar 2 contributes to multiple Sustainable Development Goals (SDGs), reflecting Horizon Europe's commitment to addressing interconnected global priorities. By aligning with SDGs, Pillar 2 supports efforts to create a more sustainable, equitable, and prosperous future for all.

If you would like to learn more about SDGs you can read all about them on the **United Nations website**.

What is Funded Under Pillar 2?

Activities funded under Pillar 2 strengthen the impact of research and innovation by developing, supporting, and implementing EU policies, while also promoting the adoption of innovative solutions in industry and society to address global challenges. The six clusters aim to maximise integration and complementarity across thematic areas.

Each cluster has a Work Programme which lists funding opportunities for consortium projects.

Most calls for proposals are addressed through collaborative, multinational and multi-partner Research and Innovation Actions (RIA) or Innovation Actions (IA), using either a one- or two-stage application process. Additionally, Coordination and Support Action (CSA) topics involve a single-stage application process.

- Research and Innovation Actions (RIA) and Coordination and Support Actions (CSA): All non-profit entities receive 100% reimbursement of eligible direct costs, with a flat 25% rate for indirect costs.

- Innovation Actions (IA): Focus on closer-to-market activities. All non-profit organisations receive 100% reimbursement of eligible direct costs, with a flat rate of 25% for indirect costs. All for-profit entities, large and small, receive a lower rate of funding – typically 60-70% of eligible costs (direct costs plus 25% for indirect costs).
- Coordination and Support Actions (CSA): Do not fund technology development projects but projects that support a specific sector in some way such as coordinating lessons learned from sector-wide projects, organising conferences, etc. All legal entities receive 100% reimbursement of eligible direct costs, with a flat 25% rate for indirect costs.

Pillar 2 also includes some “Cofunded Partnerships”, specifically targeting organisations managing or funding national and regional R&I programmes. These actions co-fund programmes focused on networking, coordination, research, innovation, pilot actions, market deployment, training, mobility, and dissemination activities. Co-funded Partnerships typically involve transnational calls for proposals, mirroring Horizon Europe’s approach.

Transforming heritage conservation sustainably

A leading UK art institution is helping heritage conservation to go greener.

Some of the materials that are traditionally used to clean and restore artworks and historical artefacts, the solvents used to remove discoloured varnish from paintings, say, can be pretty noxious. Potentially harmful to the person who's using them, and bad for the environment. Could heritage conservation go a whole lot greener, using more sustainable substances?

The EU-funded project 'green endeavor in art restoration' (GREENART) is aiming to bring this about, researching more environmentally friendly ways to preserve cultural heritage.

The project's partners are truly global: they include major art collections in the US and Japan, as well as in Europe. And playing a key role is Tate, one of the UK's leading art institutions.

Dr Bronwyn Ormsby, Principal Conservation Scientist and Tate's Principal Investigator on the GREENART project, explains:

“Though we span the globe, the world of heritage conservators can be quite small. We often know each other, and there's a lot of important informal knowledge-sharing. Often we're dealing with the same kinds of issues, and Tate has a global reputation for rigorous research in this area”.

GREENART builds on some of these long-established relationships. Until 2018, project leader CSGI (the Centre for Colloid and Surface Science, based in Florence) had been working with Tate on a similar EU-funded project, called NANORESTART. CSGI has been innovative for many years in producing new, more sustainable materials to be used in heritage conservation, while Tate leads on the evaluation of risk around new treatments: not producing new materials themselves, but feeding into the specifications for them and extensively testing them as they come through, within the context of established systems of conservation and conservation ethics.



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Paintings Conservator TATE Britain, Anna Cooper, uses a torch to inspect art work



Professor Piero Baglioni – President: centre for colloid and surface science (CSGI), Dr David Chelazzi - CSGI, and colleague discuss conservation methods while being filmed in the Conservation Studio at TATE Britain

As well as the combined expertise of its conservation team, and some 30 years of experience in researching modern and contemporary art materials, Tate brings to the project a suite of newly revamped conservation labs, supported through the Arts and Humanities Research Council's Capability for Collections Fund.

Moreover, Tate's own modern and contemporary art collection presents some particular challenges, which conservators around the world are facing, because of the vast range of different materials that modern and contemporary artists use. For example, through the GREENART project Tate is learning more about the work of major British artist Bridget Riley: she uses kinds of paint based on polyvinyl acetate, but little had been known about the implications of this for the longevity of Riley's paintings.



Professor Piero Baglioni – President: centre for colloid and surface science (CSGI) and Anna Cooper – Paintings Conservator inspect Bridget Riley painting in the Conservation Studio at TATE Britain

Still in the picture

For Tate's Research Grants Manager, Kim Balukiewicz, it's really simple:

Without this collaboration, we wouldn't have been part of the project. Tate would have missed out on the many benefits it has brought—building momentum, strengthening our role in the wider research community, and creating opportunities to train and employ conservators and heritage scientists working on the project. International partnerships like this are invaluable for advancing research and preserving cultural heritage.

Watch the Sustainable heritage conservation: The power of global collaboration video on YouTube.

Pillar 3: Innovative Europe

Europe has a solid research and industrial base, yet needs to strengthen the use of its scientific excellent and industrial prowess to accelerator innovation and turn innovative SMEs into global technology giants.

Open to multiple actors, including academia, the public sector, industry and individual entrepreneurs, Pillar 3 'Innovative Europe' focuses on supporting the development of disruptive and market creating innovations and on enhancing the European Innovation Ecosystem.

What Does Pillar 3 Fund?

Pillar 3 focuses on connecting and supporting innovators across Europe, fostering all forms of innovation—including disruptive and market-deployable innovations—to enhance European innovation ecosystems and bring new solutions to market.

The European Innovation Council (EIC)

The EIC serves as a "one-stop shop" for European innovators. It provides targeted funding through four key instruments along the TRL scale:

EIC Pathfinder

- Projects to achieve the proof of principle and validate the scientific basis of breakthrough technologies (starting from early TRLs and aiming at achieving TRL 3 or 4).
- Open call grants are up to €3M.
- Challenge Call grants are up to €4M.

EIC Transition

- Grants of up to €2.5M to validate and demonstrate technology in application-relevant environment (starting at TRL 3/4 aiming at achieving TRL 5/6 and developing business and market readiness).

Only open to previously EU Funded projects.

EIC Accelerator

Single start-ups and SMEs (including Spin-outs)

- Grant component below €2.5m for innovation activities (TRL6-8)
- Investment component of €0.5M up to €10M for scaling and to market activities. UK entries not eligible to apply.

- UK / Grant-only applicants must provide evidence that you have sufficient financial means (e.g. revenue flow, existing investors or shareholders) to finance the deployment and scaling up of your innovation.

EIC STEP

- Investment component of €10M up to €30M for scaling strategic technologies for Europe. UK entities not eligible to apply.



European Innovation Ecosystems (EIE)

The EIE acts in complement and synergy with the EIC and European Institute of Innovation and Technology (EIT) and innovative activities across Horizon Europe to improve the overall ecosystem for innovation in Europe.

Areas of EIE Intervention include:

- Builds interconnected, inclusive innovation ecosystems across Europe by drawing on the existing strengths of national, regional and local ecosystems and pulling in new, less well represented actors and territories to set, undertake and achieve collective ambitions towards challenges for the benefit of society, including the green, digital and social transitions.
- Reinforces network connectivity within and between innovation ecosystems to accelerator sustainable business growth with high societal value.
- Supports the European Partnership for Innovate SMEs (Eurostars 3)

The programme connects EU, regional, and national innovation actors, fostering collaboration through joint cross-border innovation programmes by Member States and Associated Countries. The EIE also emphasises soft skills development and other research and innovation actions to strengthen Europe's innovation capacity.

Examples of funding under EIE include the currently open call Women TechEU, **visit their website** to find out more.



The European Institute of Innovation and Technology (EIT)

The EIT delivers cutting-edge solutions, entrepreneurial talent and the supporting environment for innovation to thrive. With its multi-disciplinary network, the EIT provides opportunities for students, innovators and entrepreneurs across Europe: entrepreneurial education courses, innovation driven research projects, business creation and incubation services.

The EIT boost innovation by increasing the collaboration between business education and research organisation, public authorities and civil society. To achieve this, EIT supports the development of dynamic pan-European partnerships called Knowledge and Innovation Communities (KICs). KICs are communities of higher education institutions, research centres, business and investors and public and non-profit organisations. Each KIC focuses on a specific societal challenge. Two of these KICs are Health Innovation and Urban Mobility.

Global challenges | EIT

The EIT continues to support existing KICs while establishing new KICs in emerging priority areas. These communities enhance sustainable innovation ecosystems and encourage the entrepreneurial transformation of European universities. The EIT's initiatives also promote lifelong learning and entrepreneurial skill development, preparing individuals and institutions to meet societal challenges.

To find out more about Global Challenges, **visit the EIT website.**

Water KIC – EIT Water | EIT

The new WATER KIC has issued a call for proposals which is open until 17 June 2025. This KIC will unite water, marine and maritime innovators to join the EIT Community to address the most pressing challenges facing the water-related innovation ecosystem.

To find out more about the Water KIC, **visit the EIT website.**

By funding cutting-edge projects and fostering a culture of innovation, Pillar 3 empowers Europe to bring transformative solutions to global markets.

Revolutionising life with Parkinson's disease through AI

Jorgen Ellis and Tom Finn founders of Strolll, faced a challenge: could they help Tom's father, Nigel, make his way to the pub despite his Parkinson's?

The solution they developed is now poised to transform the daily lives of millions living with the condition.

Parkinson's disease is a progressive neurological disorder that severely impacts motor functions, particularly walking and balance.

Traditional therapies, such as cueing therapy, which uses visual and auditory prompts to by-pass the pathways damaged by Parkinson's have shown promise in managing these symptoms. However, their use has been largely confined to clinical settings, limiting their accessibility for everyday situations.

Strolll's ground-breaking solution works by projecting real-time visual and auditory cues through special glasses which harness the power of artificial intelligence (AI) technology and augmented reality (AR) to bring these therapies into the daily lives of those affected.

Jorgen explains: Tom's dad would have problems walking down the hall, but when it came to climbing stairs, he had no problem – this is where cueing therapy can help.

Parkinson's is incredibly complex, affecting our human autopilot. Movements that most people don't even think about – like walking and swallowing – are exactly what Parkinson's impairs.

“The brain is amazing; it can control different movements, but you can't just switch gears like you would in a car. So, we have to force the brain to do that with external stimuli”.

The technology

Strolll's ground-breaking solution to stimulate the brain in everyday settings for those affected by Parkinson's, was to develop the software for AR glasses which they have called NavigAlt. They work by tailoring cues to each user's specific needs using AI and machine learning.

For example, as a person with Parkinson's walks through their home or navigates public spaces, the software continuously assesses their gait, balance, and surrounding environment. It then provides the most effective cues, such as coloured lines or rhythmic sounds, to help them overcome symptoms like freezing or an unsteady gait.

Brent Poynton, Chief Technology Officer, explains: The interface itself is akin to a Heads-Up Display (HUD) in a self-driving car, guiding users toward their intended destination. We can use the technology built into the AR glasses you have on your head, and through that we can understand exactly where in the world you are, as well as what in the world is around you.

“Using real life feedback, the computer can then give you prompts to get there”.

Strolll is experienced in the development of rehabilitation tools for those with Parkinson's, and NavigAlt is the next leap in Strolll's existing rehabilitation products. NavigAlt offers an innovative, AI-driven solution that integrates seamlessly into daily life, surpassing previous applications which are either limited to clinical settings or designed to be therapeutic games accessed at home.



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Impact and vision

Strolll's ultimate goal through the use of their software is to empower people with Parkinson's to live without the fear of mobility-related symptoms. Jorgen envisions a future where people can purchase AR glasses online or from their local telecom shop, choosing styles and aesthetics that suit their tastes.

The glasses are versatile, allowing users to check emails, watch TV and more. This would mean users of NavigAlt will be indistinguishable from the general public, allowing them to discreetly manage symptoms and walk confidently in any setting without the anxiety of freezing or falling.

Partnerships and progress

Strolll's success is bolstered by strong partnerships, including collaboration with Dr Melvyn Roerdink at Maastricht University in the Netherlands.

Samantha Richmond, Vice President of Quality and Regulatory Affairs explains: Maastricht are providing the scientific expertise we need to run randomised control trials, recruit patients, conduct studies, and analyse the clinical effectiveness of our technology. Strolll combines this with our technological capabilities to develop machine learning products and the work to register medical devices.

The partnership has also provided Strolll with valuable insights into medical device regulations across the EU, paving the way for international expansion to countries like Germany, France, and eventually the US.

Samantha explains: Because our product results in people accessing our software through glasses there are, rightly, stringent regulations we need to adhere to to show this product is safe for people to use.



Tom (left) and Nigel Finn (right).

Credit: Strolll

To find out more about Strolll's journey,
watch the video on YouTube.



Augmented reality goggles.

Credit: Strolll

From science fiction to reality

So, will Tom's father Nigel soon be able to wear a pair of NavigAlt AR glasses and enjoy a pint in his local?

Not quite yet as they are still looking at environment impacts such as people walking in front of you or an uneven floor, but Jorgan says it's an exciting time:

With the advancements in AI, the progress in AR technology, and the growing acceptance of AR glasses, we're at a pivotal point where we can make this technology and software available to people with Parkinson's.

The technology is all there, our job now is to get this software into people's homes.

Expanding Excellence: Widening Participation and Strengthening the European Research Area

Horizon Europe: A Gateway to Global Research Excellence

In addition to the three 'pillars', Horizon Europe includes a fourth 'transversal' element that supports the overall objectives of the European Research Area (ERA). The initiative aims to create a unified and competitive research environment across the continent.

This fourth element is divided into two areas:

1. Widening Participation and Spreading Excellence; and
2. Reforming and Enhancing the European Research and Innovation System

Bridging the Gap: Widening Participation and Spreading Excellence

One of the central objectives of Widening Participation and Strengthening the European Research Area (WIDERA) is to address disparities between research-leading and lagging countries within the EU, ensuring that all regions have equal access to funding and resources. With 3.3% of Horizon Europe's budget earmarked for this initiative, the programme aims to foster collaboration, enhance institutional capabilities, and stimulate economic growth in underrepresented regions.

Key actions under this initiative include:

Teaming Projects: Establishing and upgrading Centres of Excellence in underrepresented regions.

Twinning Projects: Strengthening emerging research institutions through partnerships with leading counterparts.

ERA Chairs: Attracting world-class researchers to drive excellence in widening countries.

Excellence Hubs: Developing innovation ecosystems through strategic partnerships.

Hop-On Facility: Allowing widening countries to join existing Horizon Europe projects to enhance participation.

European Excellence Initiative: Strengthening cooperation between higher education institutions and broadening networks.

By enabling institutions in widening countries to integrate into established research networks, these initiatives create a "win-win" scenario where the entire European research landscape benefits from increased diversity, knowledge exchange, and strengthened capabilities.

Attracting and Mobilising Talent

Ensuring Europe remains an attractive hub for research talent is fundamental to the success of the ERA.

Several funding instruments support this goal, including:

ERA Fellowships: Providing postdoctoral researchers with opportunities to conduct research in widening countries.

ERA Talents: Encouraging cross-sectoral mobility and skills development.

Brain Circulation Measures: Facilitating researcher mobility to transform 'brain drain' into 'brain gain' for widening countries.

Through these mechanisms, Horizon Europe is actively investing in human capital, fostering interdisciplinary collaboration, and ensuring that talent flows where it is needed most.

Reforming and Enhancing the European Research and Innovation System

This area sets out to reform and enhance the EU R&I system in line with the objectives of the ERA Communication which include prioritising investment and reforms, improving access to excellence, translating R&I results into the economy, and deepening the ERA.

Key areas of focus include:

Responsible Research and Innovation (RRI): Integrating societal values into research practices.

Open Science and Knowledge Sharing: Encouraging accessibility to research findings and data.

Gender Equality: Supporting initiatives to enhance diversity and inclusion within the research community.

Strategic Synergies and Future Opportunities

The WIDERA work programme aligns with broader EU policy objectives, including the European Green Deal and the EU's digital strategy. It contributes directly to several SDGs, including Quality Education (SDG 4), Gender Equality (SDG 5), Industry, Innovation and Infrastructure (SDG 9), and Partnerships for the Goals (SDG 17).

A Call to Action for the UK R&I Community

The UK's association with Horizon Europe presents a unique opportunity for universities, research institutions, and industry leaders to engage with European partners and harness new funding avenues. UK participants can benefit from the WIDERA programme by - participating in collaborative research projects, strengthening institutional capabilities, and fostering innovation-driven growth.

For UK-based researchers and institutions looking to maximise their participation, UKRI and the UK Research Office (UKRO) provide dedicated support and guidance. Now, more than ever, is the time to embrace the opportunities within Horizon Europe and play a pivotal role in shaping the future of global research and innovation.

Finding Partners and Building a Consortium

Securing a Horizon Europe grant is both a remarkable achievement and an excellent opportunity to drive impactful research and innovation. Most Horizon Europe grants require collaboration to meet eligibility criteria and achieve project objectives. Here, we outline key strategies for identifying partners and building a strong consortium to increase your chances of success.

Building a Consortium

The strength of your project consortium plays a significant role in determining the success of your application. Most Horizon Europe projects require a minimum of three independent legal entities from different EU Member States or Associated Countries. Importantly, at least one of these entities must be based in a Member State. Some calls may require additional participants or specific types of organisations, such as those from non-EU countries.

While the minimum requirement is three partners, successful consortia often include more participants. The optimal size will depend on the project's objectives, expected impacts, and available budget. It is possible to have more than one UK organisation in the same consortium.

Tips for Collaboration

Start with Your Network: Collaborate with colleagues and institutions you trust. Previous collaborators can be a strong foundation for building a convincing consortium that meets evaluation criteria.

Consider Diverse Expertise: Many calls require interdisciplinary and inter-sectoral approaches. Ensure your consortium can address the scientific, societal, and impact-driven aspects of the project.

Meet Evaluation Criteria: Topics may specify priority areas or regions. Proposals are evaluated on how well the consortium addresses these priorities and its capacity to deliver the project's objectives.

Finding New Partners

If you need to expand your consortium, several resources can help:

European Commission's Partner

Search Tool: Available on the Funding & Tenders Portal, this tool lets you publish partnership requests and search for organisations or researchers interested in specific calls.

CORDIS Database: Review previously funded projects to identify successful participants and learn from their experiences.

Events and Workshops: Participate in European Commission information days, conferences, and workshops. Brokerage sessions during these events are ideal for networking and finding partners.

Enterprise Europe Network (EEN):

A matchmaking platform for universities and companies to identify partners for Horizon Europe bids.

Enhancing Your Visibility

My Person Profile on the Funding &

Tenders Portal: Create a public profile to advertise your expertise and interests to potential collaborators.

European Technology Platforms and

Innovation Partnerships: Engage with industry-led stakeholder groups and networks for networking and collaboration opportunities.

Roles Within a Consortium

Coordinator: Leads proposal preparation, represents the consortium, ensures compliance, and manages finances. Experienced institutions are often preferred for this role.

Project Partners: Contribute to specific work packages, provide inputs, and support the coordinator in achieving project objectives.

Advisory and Stakeholder Groups: Include external organisations in less formal roles to enhance dissemination and impact.

Meeting and Governance

Discuss expectations, budgets, intellectual property rights, and governance structures with potential partners early on. Ensuring clarity at this stage is critical for smooth collaboration.

Special Considerations for Lump Sum Projects

For projects using lump sum payments, choosing reliable consortium partners is crucial. Payments depend on the completion of work packages, making strong collaboration essential.

Brokerage Events and NCP Support

Leverage brokerage events hosted by the European Commission and National Contact Points (NCPs) for networking opportunities. NCPs can connect you with potential partners and provide valuable guidance on specific calls.

By building a diverse and well-equipped consortium, leveraging available tools and networks, and ensuring clarity in collaboration, you can maximise your chances of success in Horizon Europe projects.

Support for First-Time Horizon Europe Applicants

Are you considering applying to Horizon Europe for the first time? Are you interested in a specific funding call but unsure whether to proceed? UK-based researchers at all career stages and from all sectors have access to a wealth of dedicated resources and guidance to help you succeed.

The UK National Contact Points (NCPs)

The UK National Contact Points (NCPs) offer free, independent, and confidential advice to UK-based applicants from all types of organisation, sectors, disciplines, and career stages.

Their service is funded by the UK Government to ensure impartial and expert support for researchers exploring European funding opportunities. Businesses and devolved administrations can also access tailored NCP support.

For more information, visit:
UK NCP Information

Leverage Your Institution's Research Office

Your institution's research support office is an invaluable resource for Horizon Europe applications. Reach out to them early in the process to maximise your chances of success. They may provide dedicated support or additional resources you might not be aware of.

Stay Updated with Free Newsletters

The UK NCPs publish regular newsletters to keep you informed about upcoming calls, information events, and relevant updates. These newsletters are free and available to researchers across all sectors and disciplines.

Sign up now: Newsletter Registration

The UK Research Office (UKRO)

The UK Research Office (UKRO) is UKRI's European office, dedicated to increasing UK participation in Horizon Europe. Visit the UKRO portal to access information on National Contact Point services for ERC, MSCA, Widening, COST and New European Bauhaus, as well as factsheets on a wide range of topics supporting Horizon Europe. The portal also hosts information on funding opportunities, events and news articles, keeping users abreast of policy developments in European research and innovation.

Visit www.ukro.ac.uk to sign up for an account and our daily (or weekly) newsletter to receive updates on European research and innovation policy and funding opportunities.

Introduction to National Contact Points with contact details

As a UK applicant, help is available so you can get the most out of Horizon Europe.

National Contact Points (NCPs)

The NCPs are appointed by the UK government to give you impartial advice on Horizon Europe. Their service is free to use.

There is a team of about 20 UK NCPs, each expert in a different part of Horizon Europe. Each team member has expert knowledge in a specific area of funding. Contact your NCP expert for help with any aspect of Horizon Europe.

For example:

- Choosing funding opportunities
- Finding partners
- Preparing your proposal
- Applying
- Liaising with the European Commission on the scope of projects
- Administrative procedures
- Contractual issues

Find up to date contact details for NCPs.



Antonino Puglisi

I am the National Contact Point for the European Research Council (ERC) for the UK. In this role, I contribute to raise awareness of the ERC and support UK applicants to navigate their administrative journey to bid into the programme. I am also a European Advisor at UKRO and in this capacity I provide advice to maximise UK engagement with Horizon Europe in general.

My background is rooted in the natural sciences. I hold a PhD in Chemistry and have extensive international experience as a researcher in different countries both in industry and in academia.

Feel free to contact me at **erc-uk@ukro.ac.uk** for more information on the ERC.



Conall McGinley

I am the UK's National Contact Point for Horizon Europe Energy. In my role I support UK organisations to build proposals and develop relationships with potential collaborators from Horizon Europe member states and associate countries. I am passionate about the role of innovation in creating the low carbon energy that will be required to reach net zero.

If you're an organisation looking for support to apply to Energy calls in Horizon Europe then feel free to contact me **conall.mcginley@iuk.ukri.org** for more information.

Belen Rebollo-Garcia

I work as Knowledge Transfer Manager at Innovate UK Business Connect where I specialise on European Programmes. In my role I support Innovate UK programme of European engagement including Horizon Europe, with the main emphasis to increase business engagement and ultimately grow UK return on investment. I work with key UK stakeholders to develop a strong understanding of UK capabilities and their requirements of international partners with a view to identifying the most relevant partners to participate in European programmes. I support UK companies seeking to participate in European programmes, helping them access meaningful connections and networks.

My background is primarily on the Life Sciences and Environment sectors and have extensive international experience in different countries both in industry and in academia but also in European and National Government organisations.

Innovate UK Business Connect Support



Find out more information on Business Connect.



UK Research
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