



## Work package 2

**Deliverable:** D2.11 Report on measures of maintaining UK collaboration after European Union Exit

Lead organization: Cefas Task Leader: Rhodri Baines

Submitted by: Andris Andrusaitis (andris.andrusaitis@bonuseeig.fi)

## Submission date: 20 October 2021

## The main outcomes

- There are high levels of environmental and socio-political alignment between UK activities and BANOS strategic objectives across multiple scales. Differing levels of change (associated to EU Exit) are evident across these scales with less impact felt at the macro scale whereas greater impact is evident with regional scale relationships and agreements e.g. ICES, due to EU-Exit's regional setting.
- The Trade and Co-operation Agreement (TCA) between the UK and EU allows for continued collaborative R&I through Horizon Europe (HE). Participation will continue to give the UK access to cross-border networks, supply chains for new products and access to global talent, and reciprocally for international partners wishing to include UK entities.
- HE calls and partnerships and BANOS stand-alone actions are likely to be the main implementation mechanisms used when investigating UK participation. Uncertainty remains for specific areas such as partnerships and HE missions but these will be clarified in the coming months. Stand-alone activities provide an additional mechanism but due to their specific nature they will need to be explored on a case-by-case basis with National Funding Institutes.
- Multiple other collaborative mechanisms exist outside of the activities under HE Pillar 2 and the MFF programmes the UK did not associate to in the TCA. Some are large scale and could employ a variable geometry approach whilst others are smaller scale, niche activities that could be employed to seed specific research areas that are not covered by larger R&I activity.
- Recommendations are provided for both potential European partners and UK entities wishing to participate in collaborative European R&I.

To be cited as: Baines, R. (2021): Report on measures of maintaining UK collaboration after European Union Exit. BANOS CSA/D2.11.

Authors: Mr Rhodri Baines Contact: <u>rhodri.baines@cefas.co.uk</u>

This work has been carried out by the *Baltic and North Sea Coordination and Support Action* (*BANOS CSA*) project funded from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No. 817574.





## Description of task: (i.e. as in the Description of Work)

This task will be fulfilled in linkage to task 2.2 and will develop potential options for participatory mechanisms for UK beneficiaries after Brexit (now referred to as European Union (EU) Exit); and recommend effective measures for maintaining UK collaboration within the future joint Baltic Sea and the North Sea research and innovation programme.

The UK has an enviable record of international participation and collaboration within both ICES and the EU for which it is important to distil the main elements and identify new mechanisms for scientific evidence gathering and collaboration.

Whilst economically the UK only has direct interest in the North Sea, Cefas has experience of assessing and advising on the Baltic Sea and waters of other non-participatory member states such as Norway, Iceland, Greenland and the Faroe Islands; together with the USA and Canada.

The UK is likely to maintain and further develop its approaches to fisheries management, incorporating the wider marine system (environment and ecosystem), and continue in a leading role in shelf zone marine science with respect to how best to manage fisheries and the marine system within the shelf seas. Clearly, this can only be truly achieved by ensuring measures of maintaining UK collaboration after EU Exit; together with the collaboration of other non-participant member states.

At the least, continued international scientific collaboration will be necessary and this task will elaborate potential options for maintaining, and expanding this collaboration. As the context of this task is dynamic and possesses lot of uncertainty, the work will commence in the early stages of project implementation and will continue for its whole duration. It is expected that the deliverable produced in Month 36 will recommend effective measures for maintaining UK collaboration within the future joint Baltic Sea and the North Sea research and innovation programme.

## Note:

Report – Deliverable 2.11

Type:

R	Document, report

#### **Dissemination level**

PU Public
-----------





# Contents

Executive Summary4		
1. Introduction	5	
2. Macro-to-Micro Scale UK International Engagement Relevant to the BANOS Programme	5	
2.1 Global Agreements	6	
2.2 Macro-Regional Marine Governance Initiatives	7	
2.2.1 ICES	7	
2.2.2 OSPAR	7	
2.3 UK Government Approach to International Collaboration	8	
2.4 International Funding Programmes	9	
2.5 Cross Sector Clusters	10	
3. UK Collaboration with Europe after EU Exit	11	
3.1 Trade and Cooperation Agreement	11	
3.1.1 Mobility Among the R&I Project Partners	12	
3.1.2 Open Data	12	
3.1.3 Facilitating Infrastructure Sharing	13	
3.2 Horizon Europe	13	
3.2.1 HE Partnerships	14	
3.2.1 Horizon Europe Missions	15	
3.3 Multilateral Funding Programmes Focused on Regional Issues	15	
3.4 Stand-alone BANOS Activities,	15	
4. Additional Collaborative Mechanisms	16	
4.1 Wider EU Activities	17	
4.1.1 HE Pillar 1 Excellent Science	17	
4.1.2 HE Pillar 3 Innovative Europe	17	
4.2 Pan European Funding	17	
4.2.1 JPI Oceans	17	
4.2.2 European Cooperation in Science and Technology	18	
4.2.3 Eureka	18	
4.2.4 European Space Agency	18	
4.2.5 International Institute for Applied Systems Analysis	19	
4.3 UK Funding Alignment for European Partners:	19	
4.3.1 UKRI Calls	19	
4.3.2 Wider UK Government Calls	20	
4.4 Scientific Collaboration	20	
5 Recommendations for EU and UK Entities	21	





# **Executive Summary**

The purpose of Baltic and North Sea Coordination and Support Action (BANOS CSA) work package 2 is to create the conditions for an effective implementation of the future joint Baltic and North Sea Strategic Research and Innovation agenda (BANOS SRIA). Since the United Kingdom's (UK) exit from the European Union (EU), the UK has outlined its intentions to work with international partners as an independent coastal state to accelerate progress on complex environmental and societal challenges, including through shared commitments on EU Horizon missions and the United Nations (UN) Sustainable Development Goals (SDGs), for benefitting the global community.

There is positive alignment between the UK's environmental and research and innovation (R&I) commitments and future vision and that of the BANOS SRIA, this is evident at multiple scales from macro international conventions to micro cross sector business clusters. The number of EU funding programmes open to UK entities has reduced, however shared themes, drivers, and goals at higher geopolitical scales promote likely future alignment and the opportunity to explore collaborative partnerships to tackle shared challenges on a global scale, including through regional sea basin level activity.

The main implementing instrument of the BANOS SRIA will be transnational R&I projects selected for funding in centrally arranged competitive calls for proposals e.g. Horizon Europe (HE), and to seek opportunities to test its calls within different initiatives e.g. thematically relevant European partnerships<sup>1</sup>. Participation of countries in these calls is anticipated to follow the 'variable geometry'<sup>2</sup> approach.

The EU-UK Trade and Cooperation Agreement (TCA) lays the foundation for future R&I engagement as it includes collaboration on scientific research and supports continued partnerships between UK and European research and science experts through associated programmes. Horizon Europe provides the best opportunity for large scale BANOS SRIA activity. Wider European and UK opportunities are also available to develop smaller scale, niche activities that also contribute to the future BANOS research and innovation programme.

There is still a degree of uncertainty as the initiatives or mechanisms proposed to facilitate future collaboration are not finalised. This deliverable maps the current context to identify relevant UK trends and commitments that align with BANOS and provide either evidence for or an indication to likely future collaboration. Several recommendations for UK entities and European partners are outlined.

<sup>&</sup>lt;sup>1</sup> Koho K.A., A. Andrusaitis, M. Sirola, et al. (2021). The Baltic and North Sea Strategic Research and Innovation Agenda, BANOS SRIA 2021. BANOS CSA/D1.5

<sup>&</sup>lt;sup>2</sup> Meaning that in different calls/actions different countries/funders can be involved. As a result, not all future BANOS organisations need to participate in each action and countries/funders outside BANOS consortium could also take part.





# 1. Introduction

The overall objective of the BANOS CSA work package 2 *Implementation modalities* is to create the conditions for an effective implementation of the joint strategic Baltic Sea and North Sea marine and maritime research and innovation agenda. This deliverable of Task 2.6 – *Measures of maintaining UK collaboration after European Union (EU) Exit* is dedicated to investigating the UK's involvement with BANOS post EU Exit. This deliverable exists due to the UK's decision to leave the EU in 2016. During the intervening four and a half years there has been uncertainty regarding the UK's future relationship with Europe including participation in R&I programmes.

There have been positive developments regarding the willingness and future structure of UK collaboration with international partners. However the new context remains less than certain as the agreements planned have not been finalised and not enough time has passed to establish the proposed UK domestic alternatives by the time of writing. Much of the latter will rely on the UK Government's Comprehensive Spending Review Budget announcement on 27<sup>th</sup> October 2021 where Government Departments will learn their budget allocation for the next three years.

The UK has a good record of international participation and collaboration with both international and regional organisations (ICES, OSPAR) and the EU. It supports a diverse mix of institutions, including innovative academia; research catapults; world leading public sector research establishments, and an advanced private sector, and was a top five collaboration partner for 26 of the 27 EU countries participating in Horizon 2020. For example BANOS D3.2 identified the UK as the most active contributor to marine and maritime research (140,366 publications)<sup>3</sup>. It is in the interests of both the UK and EU that these networks continue to flourish. therefore it is important to explore how the new context created by EU Exit has changed and identify mechanisms for continued scientific collaboration.

The following deliverable will assess UK international engagement activity relevant to environmental and R&I contexts from a global (macro) to business cluster (micro) scales to see how they collaborate with Europe in the new context. Focus moves to identify possible collaboration routes for UK entities to engage with European R&I and review the mechanisms identified through HE and other collaborative instruments. Possible smaller scale, emergent, collaborative routes for UK participation are identified in section 4, and finally section 5 recommends effective measures for maintaining UK collaboration within the future joint BANOS research and innovation programme.

# 2. Macro-to-Micro Scale UK International Engagement Relevant to the BANOS Programme.

The following section identifies the most relevant macro-to-micro scale initiatives that relate to the BANOS strategic objectives: Healthy Seas and Coasts; Sustainable Blue Economy; and Human Wellbeing.

<sup>&</sup>lt;sup>3</sup> J. Lescroart, F. De Raedemaecker, H. Pirlet, A-K. Lescrauwaet, M. Sirola (2019). Forming a comprehensive analytic map of the future Baltic and North Sea Research and Innovation Programme's (BANOS) stakeholders. BANOS CSA/T3.2.





## 2.1 Global Agreements

The UK has committed to engage and influence global research and policy across broad themes, including resource use and the understanding of environmental change as a signatory of many international agreements that strive for improved human, animal and environmental health alongside the other BANOS collaborating states. These include the Paris Climate Agreement 2015<sup>4</sup>, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)<sup>5</sup>, the Convention on Biological Diversity (CBD)<sup>6</sup>, the United Nations Sustainable Development Goals (UN SDGs)<sup>7</sup>, and the United Nations Decade of Ocean Science for Sustainable Development (UNDOS). For example, the UK has pledged several Ocean Actions for UNDOS including commitments on marine science, marine litter, marine protected areas in the UK and UK Overseas Territories, and the Commonwealth Marine Economies Programme (CME)<sup>8</sup>. The UK Government has also signed the UN's Leaders' Pledge for Nature, headlined by a commitment to protect 30% of land-based and marine habitats.

The Group of Seven (G7)<sup>9</sup> agreed in 2016 to take an ambitious approach to tackling ocean issues and developed the Future of the Seas and Oceans Initiative with five main Action Areas<sup>10</sup>. On 21 May 2021 the G7 Ministers and European Commission (EC) adopted the G7 Ocean Decade Navigation Plan at the G7 Climate and Environment Ministerial. This establishes a framework through which the G7 will collaborate and advance their collective work on ocean science, ocean observing and ocean action throughout the Ocean Decade (2021-2030)<sup>11</sup>. These initiatives involve most BANOS participant countries and provides an insight into future engagement and collaboration as the G7 often pilots activities before broader G20 (Group of Twenty) and wider UN member state uptake.

The future level of ambition and commitments will become clearer in November 2021 when the UK will host the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow as COP26 President in partnership with Italy. The Paris Agreement was ratified in 2015 however a final agreement will be drawn up at COP26 containing updated commitments from nations. After the Intergovernmental Panel on Climate Change's (IPCC) sixth Assessment Report entitled 'Climate Change 2021' was published in August 2021<sup>12</sup>, the importance of international cooperation to tackle the threat of climate change was reaffirmed. The outputs of COP26 are likely to shape the context of environmental action and funding for the foreseeable future. The UK will continue to work with international partners to deliver the increased ambition needed to meet the objectives of the Paris

<sup>11</sup> <u>G7 FSOI and the Ocean Decade – G7 Future of Seas and Oceans Initiative</u>

<sup>&</sup>lt;sup>4</sup> UNTC

<sup>&</sup>lt;sup>5</sup> <u>Members and Observers | IPBES secretariat</u>

<sup>&</sup>lt;sup>6</sup> List of Parties (cbd.int)

<sup>&</sup>lt;sup>7</sup> Implementing the Sustainable Development Goals - GOV.UK (www.gov.uk)

<sup>&</sup>lt;sup>8</sup> <u>The Ocean Conference | Registry of Voluntary Commitments</u>

<sup>&</sup>lt;sup>9</sup> Intergovernmental organisation involving Canada, France, Germany, Italy, Japan, the United Kingdom, the United States and the European Union,

<sup>&</sup>lt;sup>10</sup> Ocean observing; assessments and reporting; data sharing and infrastructure; regional observing capacity; and political cooperation.

<sup>&</sup>lt;sup>12</sup> IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. In Press.





Agreement and has indicated its global climate ambition by committing to cut carbon emissions by 68% by 2030 based on 1990 levels. These developments complement commitments by BANOS states including the EC's adopted proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030<sup>13</sup>.

At a global level, these activities indicate the UK's willingness to collaborate with international partners and shows the level of ambition regarding themes consistent with BANOS strategic objectives.

## 2.2 Macro-Regional Marine Governance Initiatives

The UK is a member of marine governance initiatives that act as strategic partners to BANOS including the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)<sup>14</sup> and the International Council for the Exploration of the Sea (ICES). The connections and input to these existing macro-regional structures have, and will, assist the future direction of BANOS from a collaborative science and management perspective.

#### 2.2.1 ICES

The UK was one of the eight founding nations of ICES at its inception in 1902 and has been a formal contracting party since the agreed ICES Convention of 1964, by 17 member nations. Today ICES has 20 member nations: from the Russian Federation to Europe and the United States. A principle of the TCA between the UK and the EU is that conservation and management decisions must be based on the best available scientific advice, principally that provided by ICES. Shortly before the TCA was signed, the UK and ICES signed a Memorandum of Understanding (MoU)<sup>15</sup> for the provision of scientific advice and information on conservation, protection and sustainable use of the marine environment, sustainable fisheries and aquaculture, and marine data. This information and advice will support the UK in meeting its international and domestic obligations in sustainability.

#### 2.2.2 OSPAR

OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic, including the North Sea basin. The UK is involved in all operational levels (see figure 1) as each contracted party has agreed to use OSPAR as the mechanism to enact the Marine Strategy Framework Directive (MSFD) and the UK Marine strategy which is well aligned to MSFD. UK input at ministerial level includes the environment minister and senior government advisors e.g. Department of Environment, Food and Rural Affairs' (Defra) Head of Marine. At the procedural and legal level, the UK feeds into the Heads of Delegation Coordination group; this also includes lawyers from each country e.g. Defra legal. At the operational level, the UK is involved predominantly through government agencies and advisors e.g. Cefas, the Committees are covered by different UK Government Departments depending on remit<sup>16</sup>. Committee level engagement is usually undertaken by government advisors and technical support. The contracting parties have service level

<sup>&</sup>lt;sup>13</sup> <u>EU economy and society to meet climate ambitions (europa.eu)</u>

<sup>&</sup>lt;sup>14</sup> North Sea states only.

<sup>&</sup>lt;sup>15</sup> <u>https://www.ices.dk/about-ICES/global-cooperation/Pages/Cooperation-agreements.aspx</u>

<sup>&</sup>lt;sup>16</sup> Defra responsible for EIHA, HASEC, BDC; BEIS responsible for OIC and RSC.





agreements to fund the secretariat, within this the UK is responsible for hosting the secretariat. EU Exit did not change this context for the UK.

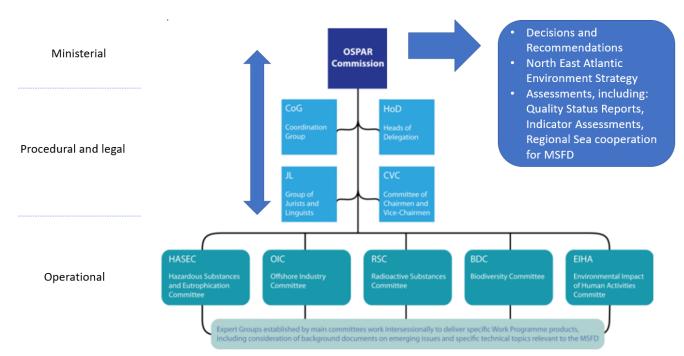


Figure 1 Adapted from OSPAR diagram<sup>17</sup> demonstrating the varying levels of engagement.

UK scientists have been a key contributor to OSPAR and ICES at all levels of the organisations and will continue to do so post EU Exit.

## 2.3 UK Government Approach to International Collaboration

On a national scale, the 25-year Environment Plan<sup>18</sup> and the Integrated Review of Security, Defence, Development and Foreign Policy <sup>19</sup> provide the best insights regarding the future ambitions of the UK in relation to international collaboration, science and innovation, and approaches to complex societal and environmental challenges. In addition, the Department for Business, Energy and Industrial Strategy (BEIS) released the UK innovation strategy in 2021, based on four Pillars (unleashing business, people, institutions and places, missions and technologies) it outlines the UK Government's vision for innovation to 2035. The strategy communicates the will to enable international collaboration, providing cross sector confidence to commit to long-term international innovation collaborations, via new global collaborations, and by supporting engagement in multilateral organisation's R&D frameworks e.g. Eureka<sup>20</sup>. Within the *Missions and Technologies pillar*, seven priority strategic technologies are outlined to focus domestic and international efforts. Several of these are relevant to BANOS themes, in particular the *Energy & Environment Technologies* focuses on net zero and protecting the natural environment as it includes '*sustainable ways to manage and optimise our resource consumption*' and '*solutions to enhance our land and restore biodiversity*'. These are global challenges which the UK can make fundamental contributions and drive progress through

<sup>&</sup>lt;sup>17</sup> Organisation | OSPAR Commission

<sup>&</sup>lt;sup>18</sup> <u>At a glance: summary of targets in our 25 year environment plan - GOV.UK (www.gov.uk)</u>

<sup>&</sup>lt;sup>19</sup> <u>The Integrated Review 2021 - GOV.UK (www.gov.uk)</u>

<sup>&</sup>lt;sup>20</sup> <u>UK innovation strategy (publishing.service.gov.uk)</u>





international collaboration and their inclusion in the strategy is an indicator for future activity in UK R&I.

UK Government priorities of Building Back Better, the Green Industrial Revolution, Net Zero ambition, and the Environment Bill, demonstrate a degree of alignment with the equivalent EU strategies including Farm to Fork, Blue Growth, Going Climate Neutral, and the Circular Economy Action Plan. There will be divergence in some areas and strong alignment in others e.g. UK Marine Strategy uses the same descriptors as the EU MSFD<sup>21</sup>. Where strong alignment exists, collaboration will likely continue as previously experienced pre–EU Exit. However, possible future divergence could limit some collaborative opportunities if a middle ground cannot be agreed, for example the UK has outlined plans to move away from European data protection regulations however any new system will need to be deemed adequate by the EU. These will need to be assessed on a case-by-case basis.

## 2.4 International Funding Programmes

The UK participates in international funding programmes across diverse multidisciplinary themes, participation is mainly facilitated by United Kingdom Research and Innovation (UKRI). UKRI is a non-departmental public body sponsored by BEIS and brings together the seven disciplinary research councils, Research England and Innovate UK, the UK's innovation agency<sup>22</sup>. UKRI is the umbrella organisation coordinating the research councils and could act as the point of contact for prospective international collaborators developing new stand-alone programmes. Additionally, international funding can also be facilitated through other routes including UK Government Departments e.g. Defra and BEIS, and wider science based collaborative organisations including the Knowledge Transfer Network, the Royal Society, and the British Academy.

In addition to UKRI, the Scottish Government has the Scottish Funding Council, providing research funding for academia, and three regional development agencies providing business support services: the Centre of Scotland Scottish Enterprise (north), Highlands and Islands Enterprise (West of Scotland) and South of Scotland Enterprise for the south.<sup>23</sup>

Still within UKRI but approaching individual organisation (micro) scale activity, Catapults and Innovation Centres bridge the gap between innovative businesses and the research communities, fostering collaborations between industry, government, research organisations, and academia. Funded through UKRI's Innovate UK, they facilitate innovation through the provision of R&D infrastructure, specialist knowledge and expertise, partnership and collaboration building capabilities. There are nine Catapults with centres covering more than 40 locations across the UK (see figure 3), with the Digital, Satellite Applications and Offshore Renewable Energy Catapults coving R&I relevant to BANOS themes<sup>24</sup>.

<sup>&</sup>lt;sup>21</sup> <u>Marine Strategy Part One: UK updated assessment and Good Environmental Status</u> (publishing.service.gov.uk)

<sup>&</sup>lt;sup>22</sup> Who we are – UKRI

<sup>&</sup>lt;sup>23</sup> <u>UK innovation strategy (publishing.service.gov.uk)</u>

<sup>&</sup>lt;sup>24</sup> Home - The Catapult Network





The UK's association to selected EU Funding Programmes has provided the foundation for UKRI and other UK National Funding Institutes to continue R&I activity related to Horizon Europe. This is discussed further in section 3.

## 2.5 Cross Sector Clusters

Operating in association to Catapults, cross sector clusters provide a collective voice for individual

organisations from public sector, academia and industry to collaborate in shared priority areas. An example of this is Maritime UK, the umbrella body for the maritime sector who provide leadership by bringing together all industries and coordinating cross-sector activity to help deliver national and regional priorities including environmental protection and innovation<sup>25</sup>. Within Maritime UK, smaller regional hubs complete the same function for a specific geographical area. Maritime UK South West (MUK SW) is a public, business, research partnership which brings together a range of ocean economy stakeholders to create an advanced ocean technology cluster to enable innovation and collaboration. MUK SW's focus areas include offshore renewable energy, marine autonomy and geospatial data, marine manufacturing, ocean science and aquaculture<sup>26</sup>. Cross sector clusters have previously been engaged in European R&I collaboration, future engagement will predominately be facilitated through the associated programmes but wider, small scale, emergent activity could provide further mechanisms for BANOS collaboration.

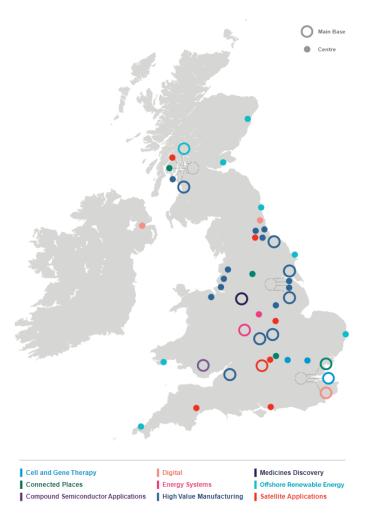


Figure 3: UKRI Catapult Network locations in UK<sup>27</sup>

There are high levels of environmental and socio-political alignment between UK activities and BANOS strategic objectives across all levels of policy context, socio-environmental objectives, and stakeholders, from inter-governmental organisations to cross sector clusters that include small and medium sized enterprises (SMEs). Differing levels of change are evident across these scales with less impact felt at the macro, or global scale agreements, whilst greater impact is evident though regional scale relationships and agreements e.g. ICES, due to EU-Exit's regional setting.

<sup>&</sup>lt;sup>25</sup> The collective voice for the UK's maritime industries | Maritime UK

<sup>&</sup>lt;sup>26</sup> Maritime UK South West - creating a clean and prosperous maritime future (maritimeuksw.org)

<sup>&</sup>lt;sup>27</sup> About the Catapult Network - The Catapult Network





# 3. UK Collaboration with Europe after EU Exit

The completion of BANOS CSA coincides with the ending of H2020, implementation of the BANOS SRIA will take place during the new HE Programme, as planned in the BANOS CSA. The BANOS dedicated implementation structure (DIS) will fulfil the core actions of the programme, which is discussed in deliverable: *D2.3 Outline of the BANOS Programme's Implementation*.

Figure 4 maps the BANOS programme to other initiatives in the European marine and maritime R&I cooperation framework and identifies possible sources of funding. The following section investigates the ability of the UK to collaborate in the future BANOS SRIA activity in relation to the initiatives represented in figure 4.

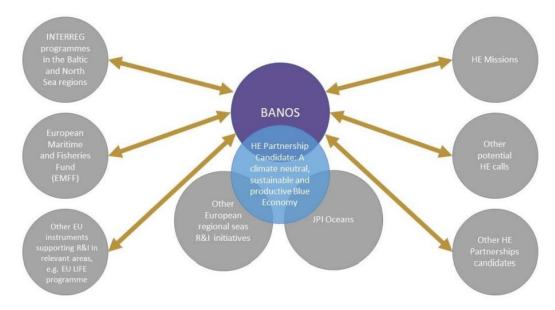


Figure 4. Links of the BANOS programme to other actors of the European marine and maritime R&I cooperation framework. Taken from Ulvila M *et al* (2020) BANOS CSA/D2.1<sup>28</sup>.

## 3.1 Trade and Cooperation Agreement

On 24th December 2020, the EU and UK agreed the European Trade and Collaboration Agreement (TCA)<sup>29</sup>. The Future Relationship Act received Royal Assent on 31 December 2020, accepting the TCA into UK law. The TCA supports continued partnerships between UK and European businesses, scientists, and researchers through the UK's participation in EU Programmes (Horizon Europe, Euratom Research and Training, and Copernicus). The UK will continue to participate in Fusion for Energy and will also have access to services from the EU Space Surveillance and Tracking programme<sup>30</sup>. The TCA also promotes the core principles of environmental protection, in line with the UK's international and domestic commitments (outlined in section 2) and shapes topics including data regulations, student exchange, nuclear science, space research and clinical trials.

<sup>29</sup> <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22020A1231(01)&from=EN</u>

<sup>&</sup>lt;sup>28</sup> Ulvila M., M. Sirendi, K.A. Koho, A. Andrusaitis (2020). Options for the legal form of the future programme's dedicated implementation structure. BANOS CSA/D2.1.

<sup>&</sup>lt;sup>30</sup> EUR-Lex - 22020A1231(03) - EN - EUR-Lex (europa.eu)





The European Parliament gave its backing to the TCA in April 2021 and following ratification by the EU Council, the agreement came into force on 1 May 2021. The EU agreed the Horizon Europe legislative framework on 10 May<sup>31</sup> and adopted the main Horizon Europe work programme for 2021-22 on 15 June 2021, which paved the way for the opening of the first calls for proposals on 22 June 2021. The UK's participation in the associated programmes will be formalised when the Protocol published alongside the TCA is adopted by the UK-EU joint Specialised Committee on Participation in Union Programmes. The EU is still in the process of formalising the UK's association, but UK-based applicants can start applying to the programme, providing opportunities for co-operative working and access to funding, notwithstanding grant agreements cannot be signed before the Protocol has been adopted. To facilitate successful future collaboration it is essential to share skills (people), information and infrastructure, these are briefly explored.

## 3.1.1 Mobility Among the R&I Project Partners

The TCA secures continued market access across a broad scope of key service sectors, including professional and business services, supporting new and continued investment between businesses. It also means that business travellers will be able to easily move between the EU and the UK for short term visits. UK residents travelling to the EU for work purposes need to check visa, work permit, declarations requirements and that their qualifications are recognised in the country they are operating in as requirements vary between EU Member States<sup>32</sup>. The agreement includes a framework under which the EU and the UK can bring together professional bodies and regulators for the mutual recognition of professional qualifications allowing for UK qualifications to be recognised in the EU and vice versa. Visas may not be needed for EU or European Economic Area (EEA) Citizens travelling to the UK for a short business trip. Under the UK's new points-based immigration system, EU/EEA Citizens can continue to visit the UK without applying for a visa and participate in business-related activities including meetings, events and conferences<sup>33</sup>. For students, the new Turing scheme<sup>34</sup> starting in September 2021 will replace the UK's participation in Erasmus+. The programme will provide similar opportunities for students to study and work abroad as the Erasmus+ programme and will include countries across the world.

#### 3.1.2 Open Data

Following EU Exit, the UK's data provision to the EU was due to expire on 30<sup>th</sup> June 2021. On 28<sup>th</sup> June, the EU adopted 'adequacy' decisions formally recognising the UK's high data protection standards and allowing data to continue flowing freely from the EU to the UK<sup>35</sup>. The UK has already recognised the EU and European Economic Area (EEA) member states as 'adequate' within its independent data policy. Open data in research will depend on the terms and conditions of the funding source e.g. Horizon Europe. Most sources of R&I funding stipulate open access to data either after paper publication or, in the case of innovation, after a set period to allow the beneficiaries to utilise their findings before wider dissemination.

<sup>&</sup>lt;sup>31</sup> <u>https://www.consilium.europa.eu/en/press/press-releases/2021/05/10/council-complements-eu-research-legislative-framework/</u>

<sup>&</sup>lt;sup>32</sup> Brexit - GOV.UK (www.gov.uk)

<sup>&</sup>lt;sup>33</sup> <u>Visiting the UK as an EU, EEA or Swiss citizen - GOV.UK (www.gov.uk)</u>

<sup>&</sup>lt;sup>34</sup> <u>New Turing scheme to support thousands of students to study and work abroad - GOV.UK (www.gov.uk)</u>

<sup>&</sup>lt;sup>35</sup> <u>EU adopts 'adequacy' decisions allowing data to continue flowing freely to the UK - GOV.UK (www.gov.uk)</u>





## 3.1.3 Facilitating Infrastructure Sharing

Horizon Europe Pillar 1 provides opportunities for infrastructure sharing which is discussed in section 4.1. The UK is also a member of various infrastructure sharing mechanisms, for example awareness of research vessel availability is communicated through the International Research Ship Operators<sup>36</sup> and European Research Vessel Operators<sup>37</sup> whose UK membership includes the Northern Irish Agri-Food and Biosciences Institute (AFBI); the National Oceanography Centre (NOC); Marine Scotland; and the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

The TCA has paved the way for continued collaborative R&I via HE with engagement anticipated to be similar to the H2020 context, except with regards to partnerships which is discussed below. The UK's decision to participate in HE is beneficial to UK research, innovation and industry. Horizon Europe will provide a platform through which UK scientists and innovators can tackle significant and shared challenges in society, ranging from climate change to global health. Participation will continue to give the UK access to cross-border networks, supply chains for new products and access to global talent, and reciprocally for international partners wishing to include UK entities.

## 3.2 Horizon Europe

HE is classified as an evolution, not a revolution, a follow-on funding programme rather than a redesign, participation will look similar in terms of application processes, funding rates, evaluation, reporting etc<sup>38</sup>. The UK's new associate status works in a similar way to its historical relationship, UK entities will have equivalent participation rights to those from Member States (MS) and are able to access funding from all parts of the Programme including European Research Council (ERC), Marie Sklowdowska Curie Actions (MSCA), Partnerships, and most of the European Innovation Council (EIC). UK entities can lead and influence key collaborative projects and maintain continued access to collaborative R&I funding, infrastructure, and markets via HE. The UK also retains participation and influence on programme governance structures through the Programme Committees (these are discussed in two year cycles).

The process for applying for and receiving funding or contracts through these Programmes remains similar to those experienced by UK beneficiaries in the previous Programmes. UK entities interested in bidding for funding or contracts can check the EU websites or National Contact Points<sup>39</sup>. Any legal entity can participate, however for collaborative projects, a consortium of at least three independent legal entities, each established in different EU MS or Associated Countries, with at least one established in a MS is required. Some Work Programme level exclusions exist but only in exceptional and justifiable circumstances (e.g. some Defence and Security Programme activities).

HE follows the same three pillar approach (Pillar 1 Excellent Science; Pillar 2 Global Challenges and European Industrial Competitiveness; and Pillar 3 Innovative Europe), with Pillar 2 providing greater opportunities to develop large, multi-stakeholder consortia with sufficient budgets to address cross

<sup>&</sup>lt;sup>36</sup> <u>Members-National Organizations | International Research Ship Operators' Meeting (irso.info)</u>

<sup>&</sup>lt;sup>37</sup> ERVO GROUP // ERVO Members (ervo-group.eu)

<sup>&</sup>lt;sup>38</sup> Introduction to Horizon Europe Webinar - KTN (ktn-uk.org)

<sup>&</sup>lt;sup>39</sup> Horizon Europe: help for UK applicants – UKRI





cutting themes and objectives. Cluster 6 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' contains multiple joint calls to provide potential opportunities for BANOS contribution.

The first Pillar 2 Joint Calls have been published before EU ratification of the TCA, thus before UK association to HE is finalised, the European Commission has published guidance with Q&A on the UK's eligibility to participate<sup>40</sup>. This confirms that: the UK will have the same rights and obligations as EU participants and other countries associated to the Programme; and UK entities will have full rights to participate in the first calls for proposals as soon as they are published on the Commission's Funding and Tender Opportunities portal. Proposal submission and grant management is through the EU portal and guidance is available from the UK Government portal<sup>41</sup>.

#### 3.2.1 HE Partnerships

The Horizon 2020 interim evaluation identfied six main areas for improvement including spreading excellence, open science policy, and extend association possibilities, it also recommended a new approach to partnerships<sup>42</sup>. This new approach aims at a consolidated and rationalised number of partnerships that avoids overlaps and duplication, however it has caused uncertainty due to the considerable changes in the Public to Public (P2P) partnership instruments compared to H2020<sup>43</sup>.

Of the current 49 candidacy partnerships, the envisioned co-funded pan-European Horizon Europe partnership *A climate neutral, sustainable and productive Blue Economy*, now referred to as SBEP, is potentially the most promising platform for implementing the BANOS SRIA through embedded calls and other forms of cooperation. The SBEP is currently planned over a six or seven-year implementation period during HE, commencing sometime during 2022. SBEP activities are expected to be outlined as part of the partnership proposal until 2027, however these are planned in detail via annual increments and implemented in accordance with the rules of HE co-funded partnership. The first annual work plan would be drafted concurrently with the full SBE Partnership proposal (anticipated call on 28 October 2021 and submission deadline on 15 February)<sup>44</sup>.

In addition, the partnerships Biodiversity and Water-4-All are also relevant for BANOS and SBEP. These partnerships are due to start before SBEP and therefore engagement and planning insights can be gained. The implementation mechanisms of SBEP are not yet know but it is anticipated that it can be one of the main implementation mechanisms of BANOS SRIA.

BEIS is acting to coordinate UK interests across HE with the EC, including feeding back centrally where UK entities have expressed an interest the partnerships. Most Cluster 6 partnerships are co -funded i.e. involving EU and associated countries with research funders and other public authorities at the core of the consortium. In the UK this has been Defra, NERC and the Biotechnology and Biological Sciences Research Council (BBSRC). There is strong interest in all the partnerships, currently the UK is

<sup>&</sup>lt;sup>40</sup> <u>ec\_rtd\_uk-participation-in-horizon-europe.pdf (europa.eu)</u>

<sup>&</sup>lt;sup>41</sup> <u>Horizon Europe funding - GOV.UK (www.gov.uk)</u>

<sup>&</sup>lt;sup>42</sup> Horizon Europe | European Commission (europa.eu)

<sup>&</sup>lt;sup>43</sup> Yven C., C. Saout, M. Ulvila, M. Sirendi, K.A. Koho (2020). Report on national funding landscape and modalities. BANOS CSA/D2.2.

<sup>&</sup>lt;sup>44</sup> Koho K.A., A. Andrusaitis, M. Sirola, et al. (2021). The Baltic and North Sea Strategic Research and Innovation Agenda, BANOS SRIA 2021. BANOS CSA/D1.5





assessing which partnerships to associate to through ongoing engagement. As discussions develop it is hoped that the UK will be able to contribute and participate to selected programmes throughout the duration of the partnership but at the time of writing it is yet to be confirmed.

## 3.2.1 Horizon Europe Missions

The HE Missions are a portfolio of actions across disciplines intended to achieve ambitious goals within a set period with impact for society and policy and are the Commission's response to major societal issues. The Missions were formally launched on 29<sup>th</sup> September 2021 providing an initial indication of their implementation.<sup>45</sup> BANOS SRIA has strong alignment to the 'Restore our ocean and waters' Mission and future BANOS SRIA implementation will be considered to contribute towards the mission goals.<sup>46</sup> At the time of writing there is no formal UK position on HE Missions. UK entities can engage as they see fit, as future actions and activities are defined it will become clearer how the UK will engage.

## 3.3 Multilateral Funding Programmes Focused on Regional Issues

Several other Multiannual Financial Framework (MFF) programmes are relevant to BANOS SRIA in addition to HE, including those from the EC and others outside of the EC (e.g. Joint Programming Initiatives). The UK did not associate with the EU programmes outside of those listed in the TCA and is therefore not eligible to participate. These include: Interreg, European Food Standards Authority; the equity/pathfinder aspect of the EIC Fund; European Structural and Investment Fund (ESIF); European Social Fund (ESF); European Regional Development Fund (ERDF); European Agricultural Fund for Rural Development (EAFRD). European Maritime and Fisheries Fund (EMFF); and LIFE programme.

## 3.4 Stand-alone BANOS Activities,

Due to the uncertainty caused by changes in the HE P2P partnership instruments, BANOS now includes a 'stand-alone programme' option, based solely on contributions by the participating countries with possible supplementary funding from other EU funding programmes (e.g. EMFF, Interreg).

BANOS may implement its own complementary activities tailored to address the specific challenges faced in the BANOS region. BANOS deliverable D2.2. showed that most of the national and/or regional funding institutions could not fund organisations that were not based in their countries and/or region, meaning the most likely secure funding model to implement joint transnational calls for proposals in BANOS geographical area would be a virtual common pot model. The funding and financial rules are therefore specific to the country and/or funding organisation with details of calls including budgets, schedules, theme and topics, coordinated and agreed at the BANOS programme level.<sup>47</sup>

Within UKRI, the Natural Environment Research Council (NERC) are the most relevant Research Council for future BANOS implementation. UKRI does not have a dedicated budget for marine strategic

<sup>&</sup>lt;sup>45</sup> <u>Commission launches EU missions to tackle major challenges (europa.eu)</u>

<sup>&</sup>lt;sup>46</sup> Ulvila M., M. Sirendi, K.A. Koho, A. Andrusaitis (2020). Options for the legal form of the future programme's dedicated implementation structure. BANOS CSA/D2.1.

<sup>&</sup>lt;sup>47</sup> Yven C., C. Saout, M. Héral, M. Ulvila, M. Sirendi, K.A. Koho, A. Andrusaitis (2021): Options for appropriate programme funding principles including in-kind contributions provided free of charge. BANOS CSA/D2.5





research programmes, so all bids for marine strategic research funding are subject to a highly competitive process that for some funding mechanisms covers the natural science remit (e.g. earth, terrestrial, marine), and for other mechanisms cover the entire UKRI remit (e.g. medical, biotechnology, natural science, engineering, etc). Competitive bids for strategic research funding therefore need to have well focussed research objectives and outcomes and demonstrate that they are timely and have strong strategic partnerships with identified partners. However geographic considerations tend not to be a big consideration in building a competitive bid (e.g. the need to work more in a particular ocean or sea). In recent years UKRI has focused research largely on addressing large scale oceanic research challenges (e.g. understanding the impact of climate change on the Arctic Ocean's ecosystems), which has meant the main interest in regional seas research has been largely funded by UK government agencies (e.g. Defra, Marine Scotland Science). There have been several recent programmes developed in partnership with government partners in the UK to meet marine high priorities in UK waters (e.g. INSITE (Influence of Man-made Structures in the Ecosystem), SMMR (Sustainable Management of UK Marine Resources), and ECOwind, the recently funded partnership programme with Defra and The Crown Estate on the Ecological consequence of Offshore Wind). All these programmes have had well focused research objectives and outcomes that, through close working with policy makers, have been co-designed to ensure the delivery of critical science to policy impacts in support of the priorities of governments in the UK. Depending on the focus of future BANOS research programmes, there may be opportunities for alignment with linked UK programmes i.e. similar scientific/policy outcomes, to the benefit of the research and 'added value' outcomes to research programmes. Alignment opportunities can only be explored in detail once the funding for the UK programme was secured and the commissioning and/or delivery had started<sup>48</sup>.

HE calls and partnerships and stand-alone actions are likely to be the main implementation mechanisms used when investigating UK participation. The UK is not eligible to participate outside of the Horizon Programme, however, UK participation will be similar to H2020 collaboration. Uncertainty remains for specific areas such as HE partnerships and missions but these will be clarified in the coming months. Stand-alone activities provide an additional mechanism but due to their specific nature they will need to be explored on a case-by-case basis with National Funding Institutes.

# 4. Additional Collaborative Mechanisms

The TCA has facilitated the main collaborative mechanism needed for continued UK participation in European R&I. The BANOS stand-alone activities also provide a separate mechanism to deliver the strategic objectives in the absence of UK eligibility for wider Multiannual Financial Framework (MFF) programmes. At the time of writing, the above initiatives are the most likely implementing mechanisms and represent a large-scale approach which is most efficient for fostering extended collaboration.

The funding landscape is dynamic. In addition to HE Pillar 2 activities, multiple funding opportunities across the R&I landscape are relevant to BANOS R&I themes and could provide opportunities for collaboration and progress towards the BANOS strategic objectives. The following 'currently active' funding opportunities have been selected as possible funding sources and are grouped into: Wider EU

<sup>&</sup>lt;sup>48</sup> NERC statement email 06/08/21.





activities; pan-European funding; UK funding eligible for international partners; and international collaboration mechanisms.

## 4.1 Wider EU Activities

Horizon Europe Pillars 1 and 3 could provide opportunities to develop smaller scale, niche activities that also contribute to the future BANOS programme. Collaboration is usually between two to three organisations investigating novel research, sharing infrastructure, or exchanging researchers.

#### 4.1.1 HE Pillar 1 Excellent Science

Pillar 1 includes the European Research Council (ERC), MSCA and Research Infrastructures and is open to all areas of research at all stages (basic frontier research to near market uptake). This Pillar facilitates access to researchers and aims to develop new and existing collaborations via initiatives including ERC advanced grants, early-career scientist starting grants, consolidator grants<sup>49</sup> and several MSCA funding options. The UK Research Office (UKRO), the Brussels based office of UKRI, are hosting several webinars in 2022 for UK applicants or those looking to carry out a project with a UK host organisation. <sup>50</sup>

#### 4.1.2 HE Pillar 3 Innovative Europe

This includes the European Innovation Ecosystems, European Institute of Innovation and Technology and the European Innovation Council (EIC). EIC provides integrated and agile support across the full R&D spectrum from early-stage research to scale up that are too risky for private investors, with approximately 70% of the budget is earmarked for SMEs. Instruments include the Pathfinder R&I grants funding early technology to proof of concept; Transition R&I grants building on previous projects, from proof of concept to pre-commercial; and Accelerator grants. There are two components, grants and loan/equity options. The UK can only apply to the grant component.

The EIC<sup>51</sup> aims to identify, develop and scale-up breakthrough technologies and disruptive innovations and replaces H2020 SME Instruments and Fast Track to Innovation schemes. The EIC will support startups, SMEs and research teams developing high-risk, high-impact breakthrough innovation, with a particular focus on scaling up game-changing solutions. In March, EIC released the first round of funding opportunities, UK organisations can participate on an equal footing with entities from EU Member States and other associated countries in the EIC's Pathfinder component and can apply for the grants only elements of the EIC Accelerator programme.

#### 4.2 Pan European Funding

This section focuses on European R&I opportunities that are not directly funded by the EC.

#### 4.2.1 JPI Oceans

The Joint Programming Initiative Healthy and Productive Seas and Oceans (JPI Oceans) is a platform to develop a long-term European approach to marine and maritime research and technology by

<sup>&</sup>lt;sup>49</sup> Funding | ERC: European Research Council (europa.eu)

<sup>&</sup>lt;sup>50</sup> <u>ERC & MSCA: Webinars for UK applicants or those looking to carry out a project with a UK host organisation</u> (linkedin.com)

<sup>&</sup>lt;sup>51</sup> European Innovation Council (europa.eu)





implementing joint actions and aligning national priorities. The membership of JPI Oceans encompasses 22 European States including the UK with representation on the JPI Oceans Management Board which is informed by a UK Management Board comprising of Defra, NERC, NOC and Cefas. The UK's presence on the Management Board provides an opportunity to directly engage with members and organisations looking to develop research collaborations that match the UK's interests and expertise.

Regarding BANOS, future cooperation with JPI Oceans will be arranged through SBEP of which JPI Oceans will become a central operational management unit. As most of the BANOS states are also represented in the JPI Oceans Management Board, further strategic alignment and joint activities independently of the SBEP could also be considered<sup>52</sup>. This activity would also represent a large-scale approach between multiple nations, for example the recent Aquatic pollutants call running from 2020-24 targets risks posed to human health and the environment by pollutants and pathogens present in water resources. It was initiated jointly through JPI Oceans, JPI AMR and JPI Water and includes Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Norway, Poland, Sweden, and the UK (Scotland only through Scottish Enterprise funding).

## 4.2.2 European Cooperation in Science and Technology

COST Actions are pan-European interdisciplinary, bottom-up researcher driven networks open to all fields of science and technology. COST does not fund research itself but provides the support to help these Actions promote global networking of nationally funded research. The intergovernmental framework recently announced the funding of 40 new COST Actions, which will start in Autumn 2021. New actions include animal health, environment, marine and water-energy-food<sup>53</sup>

#### 4.2.3 Eureka

Eureka is the world's biggest public network for international cooperation in R&D and innovation. Currently there is an open call for network project applications until December 2025. This provides access to national funding for international collaborative R&D projects using a flexible programme. All BANOS countries are listed as eligible<sup>54</sup> and the current call is open until November 2021<sup>55</sup>.

#### 4.2.4 European Space Agency

The UK's membership of ESA is not affected by leaving the EU. The UK aims to continue to participate in the Copernicus component of the EU Space Programme as a third country for 2021-2027, however the agreement is subject to finalisation of the EU Space Regulation. Copernicus activities have relevance to the marine environment, climate change, pollution events and blue economy developments. If successful, UK-based businesses, academics and researchers should be able to bid for future Copernicus contracts tendered through the EU, funded through the EU's Multiannual Financial Framework and through any process using EU procurement rules<sup>56</sup>.

<sup>&</sup>lt;sup>52</sup> Ulvila M., M. Sirendi, K.A. Koho, A. Andrusaitis (2020). Options for the legal form of the future programme's dedicated implementation structure. BANOS CSA/D2.1.

<sup>&</sup>lt;sup>53</sup> <u>Microsoft Word - oc-2020-1 Actions Booklet (cost.eu)</u>

<sup>&</sup>lt;sup>54</sup> Eureka | network-projects-all-year (eurekanetwork.org)

<sup>&</sup>lt;sup>55</sup> <u>Competition overview - Eureka Eurostars 3: call 1 - Innovation Funding Service (apply-for-innovation-funding.service.gov.uk)</u>

<sup>&</sup>lt;sup>56</sup> <u>UK involvement in the EU Space Programme - GOV.UK (www.gov.uk)</u>





#### 4.2.5 International Institute for Applied Systems Analysis

IIASA is an independent, international research institute with National Member Organisations in Africa, the Americas, Asia, and Europe. IIASA research results and researcher expertise are made available to international policymakers help produce effective, science-based policies that will enable them to address atmospheric, earth, biological, terrestrial and aquatic science challenges. A variable geometry approach could be employed as Finland, Germany, Norway, Sweden and the UK are members of IIASA and are eligible to apply for funding. Historically support has been provided for early-career researchers to deliver challenging research and support the development of long-term collaborative working relationships between the UK and IIASA research communities<sup>57</sup>.

### 4.3 UK Funding Alignment for European Partners:

Through the TCA, the UK has access to associated EU funding. The EU also has access to UK programmes if they meet the eligibility criteria of the specific funding call. As stated in the BANOS D2.2 report on national funding landscape and modalities, in general UK funding institutions cannot fund beneficiaries located in other countries<sup>58</sup>. There are circumstances where international partners can receive funding but there are caveats associated. This can vary between calls but in general for an international stakeholder to receive UK based R&I funding, the activity must be carried out in the UK, or the benefits of the research must be utilised in the UK. The following are examples that could provide alignment and/or collaborative opportunities.

#### 4.3.1 UKRI Calls

Potentially relevant calls are continuously released by UKRI due to the overlapping remit of BANOS and UKRI councils including NERC, BBSRC and Innovate UK. Recent examples include SMMR, INSITE and ECOWind, the new research programme launched in 2021 to address the critical gap in understanding how marine ecosystems will respond to the continued growth of offshore wind farms<sup>59</sup>. Research programmes have a finite timeline meaning predicting the eligibility of future relevant calls is difficult. One current programme that is expected to continue is the Strength in Places Fund (SIPF). SIPF was launched in 2018 and has allocated £186 million to date. It forms part of the National Productivity Investment Fund, taking a place-based approach to R&I funding to support significant regional growth. Activities must be in line with UKRI's mission, where the focus is on supporting businesses and research organisations at the forefront of delivering economic growth through innovation within an identified economic geography. Co-investment and the development of collaborative bids that leverage funding and other in-kind support from wider sources is encouraged. For example matched contributions that create a bigger 'pot' for the research activity through eligible co-investment including European Structural and Investment Funds<sup>60</sup>, this could provide funding opportunities in addition to those identified in figure 4 above where SIPF provides UK entities with the replacement to ESIF now the UK is not eligible to this EU MFF.

<sup>&</sup>lt;sup>57</sup> IIASA - International Institute for Applied Systems Analysis

<sup>&</sup>lt;sup>58</sup> Yven C., C. Saout, M. Ulvila, M. Sirendi, K.A. Koho (2020). Report on national funding landscape and modalities. BANOS CSA/D2.2.

<sup>&</sup>lt;sup>59</sup> Addressing the effect of offshore windfarms on marine ecosystems – UKRI

<sup>&</sup>lt;sup>60</sup> Strength in Places Fund – UKRI





## 4.3.2 Wider UK Government Calls

As with UKRI calls, wider UK Government programmes are also finite. A current example where international partners are eligible to receive funding directly is the Seafood Innovation Fund<sup>61</sup>. SIF is a £10 million fund from Defra to support seafood research & innovation. A third wave of funding is open until 7<sup>th</sup> January 2022, in previous waves any organisation based in the EU that met the specified eligibility criteria and had a proposal to develop and test products and services aimed at the UK industry could apply. As the UK has not associated to wider EU MFF programmes, it is anticipated that domestic equivalents will be released in the coming years e.g. UK Community Renewal Fund replacing EU Structural Funds. Current funds like SIF could provide an indication to future international partner eligibility requirements and wider collaboration opportunities outside of HE.

### 4.4 Scientific Collaboration

The UK government's overseas networks work across sectors to connect innovative organisations in the UK with overseas opportunities and vice versa. The Science and Innovation Network (SIN) is present in over 40 countries helping to establish collaborative partnerships and international connections<sup>62</sup>. UKRI also have a range of collaboration support services, this is mainly facilitated through National Contact Points (NCPs) who provide guidance, information and assistance on all HE participation aspects. The NCP network is international<sup>63</sup> with representatives in the UK, EU Member States, Associated Countries, and many 'third' countries. Innovate UK EDGE<sup>64</sup>, previously part of the Enterprise Europe Network (EEN) has regional offices and access to a large database of companies seeking collaboration. UKRO provides a regularly updated factsheet on UK participation on EU funded programmes<sup>65</sup> and NCPs for EIC and MSCA. The UK Knowledge Transfer Network (KTN) offers specialist thematic knowledge and network access globally, including in Europe. KTN helps companies identify opportunities and partners and supports the NCPs with thematic activities<sup>66</sup> and sector specialists including EU specialists.

At any one time there are usually network development funding calls for engagement and facilitation that could be utilised to contribute to BANOS strategic objectives. At the time of writing the current calls include a British Academy Pump Priming call to develop collaborative activity between UK and EU/associated countries' entities in Pillar 2 of Horizon Europe<sup>67</sup> and a BBSRC call to develop links with laboratories in European countries as part of the International Partnering Awards programme<sup>68</sup>

The UK's participation in selected EU programmes will support and develop partnerships between UK and European research and scientists in areas of common and global interest, including science, research and innovation. Multiple other collaborative mechanisms exist outside of the activities under HE Pillar 2 and the MFF programmes the UK did not associate to. Some are large scale and could

<sup>&</sup>lt;sup>61</sup> Home - Seafood Innovation Fund

<sup>62</sup> UK Science and Innovation Network - GOV.UK (www.gov.uk)

<sup>&</sup>lt;sup>63</sup> Get guidance and help with Horizon Europe – UKRI

<sup>&</sup>lt;sup>64</sup> Innovate UK EDGE (ukri.org)

<sup>&</sup>lt;sup>65</sup> UK EU factsheet.pdf (ukro.ac.uk)

<sup>66</sup> Home - KTN (ktn-uk.org)

<sup>&</sup>lt;sup>67</sup> Horizon Europe Pump Priming Collaboration between UK and EU Partners | The British Academy

<sup>68</sup> Partner with European bioscience laboratories – UKRI





employ a variable geometry approach whilst others are smaller scale, niche activities that could be employed to seed specific research areas that are not covered by larger R&I activity.

# 5 Recommendations for EU and UK Entities

The purpose of the deliverable is to recommend effective measures for maintaining UK collaboration within the future BANOS programme by elaborating potential options for maintaining and expanding collaboration. At the time of writing, the UK's final position is less than certain, for some aspects of the HE programme there are clear opportunities for UK entities to participate, others are yet to be confirmed. One evident certainty is that it is important for UK based researchers to continue utilising EU and UK funding streams to facilitate European regional collaboration and for potential collaborators based in the EU to actively seek partnerships with UK-based organisations.

### **Recommendations for European Partners including BANOS**

- The Horizon Programme still provides the best opportunity to collaborate due to its inclusion on the TCA. Multiple organisations and small-scale initiatives are currently active, facilitating collaboration and engagement between the EU and UK. UK entities are already participating in Pillar 2 Joint Calls and the UK should indicate which partnerships will be progressed once future funding is confirmed.
- The UK is committed to continue membership of OSPAR and ICES, with active participation at all levels of operations. Future activity should be discussed and input sought from OSPAR and ICES where possible to ensure regional alignment and efficient use of resources. Awareness of UK commitments and obligations from a macro to micro scale will help develop alignment and could improve facilitation of UK participation.
- The variable-geometry, stand-alone BANOS opportunities could be discussed with UK National Funding Institutes. These could take a thematic rather than regional approach and develop well focused research objectives and outcomes that have been co-designed to ensure the delivery of critical science to policy impacts in support of UK priorities.
- Bilateral and multilateral opportunities are usually progressed through existing forums, therefore liaise with UK National Funding Institutes through existing fora including JPI Oceans and European Marine Board (EMB). The UK is represented by Cefas, Defra, NERC and NOC at JPI Oceans, whereas EMB representation consists of Marine Alliance for Science and Technology Scotland (MASTS), NERC and NOC. Collaboration opportunities are possible through bilateral joint calls, usually through established partners e.g. JPI Oceans, these are explored on a case-by-case basis.
- Where existing relationships do not exist, initial contact could be established through either UKRI's European based organisation UKRO, or through the Innovate EDGE team. National Contact Points can be found through the Innovate UK website. Also the Science and Innovation Network have multiple offices in Europe and can facilitate meetings and introductions with UK Government Departments and other UK stakeholders.

#### **Recommendations for UK Entities**

• UKRI and SIN have information about current and upcoming collaborative opportunities. UK entities are actively being encouraged to develop consortia and submit proposals to HE. Multiple seeding funds and access to international networks are also available.





- The UKRO factsheet provides the current guidance<sup>69</sup> on UK participation in EU R&I programmes. NCPs are also available to answer specific questions.
- The full extent of UK participation is still not confirmed, possible opportunities could materialise through the HE partnerships and UK domestic alternatives. Wider opportunities are available outside HE, these range in scope and scale and could be used to establish seeding funds for new ideas, or further develop existing lines of research.

#### Acknowledgements

This paper was developed with input and advice from colleagues and collaborators at Cefas, Defra, NERC, Scottish Enterprise, UKRI, and the BANOS Secretariat.

<sup>&</sup>lt;sup>69</sup> UK EU factsheet.pdf (ukro.ac.uk)