

POSITION PAPER



TOWARDS 2028

SHAPING THE FUTURE OF THE EU FRAMEWORK PROGRAMME FOR R&I



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Key messages

- As a result of increasingly complex demands by the labour market, growing research capabilities are being implemented at Universities of Applied Sciences (UAS), leading to increased interest in international research collaborations.
- Following the introduction of the societal challenges and innovation pillars in Horizon Europe, Universities of Applied Sciences (UAS) are increasingly attracted by the EU Framework Programme for R&I.
- The EU's Framework Programme for R&I and the discussion thereof should better reflect the complementary nature of basic and applied research.
- Geopolitical developments and their implications on the EU's political priorities justify an increase in the Framework Programme's budget to 200 billion euros.
- UAS can greatly contribute to Horizon Europe Mission objectives. However, Missions need horizontal alignment on European and national levels to generate the necessary sectoral buy-in.





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Introduction: R&I at Universities of Applied Sciences

Universities of Applied Sciences (UAS) are regionally embedded higher education institutions with a mandate to foster the development of their innovation ecosystems. Through research-based training and practice-oriented research and innovation, UAS conduct knowledge transfer and valorisation driven by real-world challenges.

While the UAS landscape is diverse across different European countries and regions, they share a specific mission on **supporting regional development through applied research** in close cooperation with local stakeholders from industry, public authorities and civil society. As such, UAS place a strong emphasis on intertwining the university missions of education, research, innovation and service to society, economy, politics and the environment. In short, the four key characteristics of UAS can be described as such:

- UAS follow a practice-based approach which promotes innovation competencies and an entrepreneurial mindset, thus ensuring the availability of talents in their regions;
- UAS meet societal challenges in an integrative manner by supporting business development of local companies and organisations;
- UAS form the link between fundamental research and the market application of new innovations; and
- UAS act as important drivers of innovation ecosystems as a result of their regional embeddedness.

A growing research intensity at UAS is observable over the past years due to the **increasing complexity of knowledge required by the labour market**. While capacities can be strengthened in many ways, some ministries chose to accredit professional doctorates or PhD rights to UAS such as in many federal states of Germany, the Netherlands or Portugal. Other UAS, such as in Austria and Switzerland are advocating for equivalents to bolster their research capacities.

Consequently, resulting from increased RTD capabilities of UAS, interest in the EU Framework Programme for Research and Innovation, currently Horizon Europe, has been growing continuously over the past years and particularly since the introduction of Horizon Europe's pillars 2 and 3. This, in turn, further supports the strengthened competitiveness of the European regions.



This position paper aims to contribute to the discussion on Horizon Europe's successor programme (FP10) from the perspective of Universities of Applied Sciences. Specifically, we formulate ten concrete recommendations on how to make the EU's R&I Framework Programme even better for all participants.

The observations and recommendations in this paper take into account the discussions at the UAS4EUROPE networking conference on 22 and 23 May 2023 in the Representation of the Free State of Bavaria to the EU in Brussels ("Halfway to the Horizon"¹).

Enter Horizon Europe: UAS as strong partners in consortia

UAS are comparatively young higher education institutions stemming from the development of multitype higher education systems. First established in Germany (Fachhochschulen) and the UK (polytechnics) in the 1960s to combine scientific training with practical orientation, UAS quickly spread all over Europe. Today, they take the form of *Fachhochschulen, Hochschulen für angewandte Wissenschaften* or *Technische Hochschulen* in the DACH region², *Hogescholen* in the Netherlands, *Professionshøjskoler* in Denmark, *Ammattikorkeakoulut* in Finland or *Hautes écoles* in Belgium.

While previous Framework Programmes put a strong emphasis on basic research, Horizon Europe has commendably acknowledged the complementary needs of knowledge creation and its valorisation. With the introduction of the societal challenges and innovation pillars, suitable entry points have been created for the impact-oriented research conducted at UAS, which as a result are demonstrating increasing interest and resources for EU projects.

The impact-orientation of Horizon Europe, supplemented by the European Universities Initiative (funded by Erasmus+) push UAS to strengthen international networks and internationalisation strategy planning in order to boost transnational cooperation. UAS participants in Horizon Europe testify that administrative hurdles can be mastered and come with a notable reputational boost on an international stage. In addition, the existence and growth of UAS4EUROPE since the late 2010s underlines the argument of a more visible UAS sector in the area of R&I policymaking.

It is noteworthy however, that when engaging in EU Calls for proposals, **UAS operate in a slightly different framework than traditional universities**. While the strength of basic research lies in the long-term research horizon, with unforeseeable scientific, economic and societal impact, applied research responds to short-term needs of citizens, public authorities and industries. As such, UAS operate in shorter timeframes in order to react quickly and appropriately to given local challenges and opportunities. Against this background, one structural challenge that UAS researchers face when applying for EU research grants is the long timeframe from proposal submission to project start. In order for UAS to respect their mandate within their regional research and innovation ecosystem, **funding needs to flow sufficiently quickly** to effectively respond to the real-time situation on the ground. Nevertheless, the clear impact-orientation, close links to the entire regional ecosystem,

¹ <u>https://uas4europe.eu/networking-conference-2023/</u>

² Germany, Austria, Switzerland



interdisciplinarity and the resulting trust in applied research institutions and actors turn UAS into an added-value to every R&I project.

Implementing Horizon Europe in a changing world

The programming period of Horizon Europe is marked by several unforeseen, external shocks that have direct impact on the funding programme and the entire European research sector.

The Covid pandemic revolutionised the way in which we work and interact with one another. While the work environment got significantly more digitised with people seamlessly collaborating over long distances, it also set a precedent for seemingly impossible lockdowns of entire sectors. This affected the collaboration of research teams, funding bodies and evaluation processes. Against this backdrop, **Horizon Europe witnessed delays in work programme publications** that negatively impacted several rounds of funding Calls.

Furthermore, the Russian war against Ukraine led to the rightful exclusion of Russian entities as beneficiaries of EU funding, including their participation in project consortia and networks. Inextricably linked therewith was/is an energy and inflation crisis that **severely hit especially higher TRL-level projects** (Innovation Actions), which, due to rising costs, partly had to downscale, often leading to lagging behind the project objectives as laid out in the grant agreements.

Further geopolitical tensions in the Indo-Pacific and the Middle East testify of an increasingly volatile environment, including for research actors.

In order to promote the objectives of Horizon Europe and future Framework Programmes in an increasingly complex geopolitical environment, it seems sensible to further promote research cooperation with third countries that have proven to be trustworthy and reliable partners in R&I collaborations. It is commendable that UK association to Horizon Europe is now a reality. In addition, we underline the urgent need to make further progress on the Swiss association. We welcome the positive steps in the EU-Switzerland relations and encourage both sides to continue engaging in this spirit with tangible progress for researchers and students.

Generating impact through Horizon Europe

As we are facing increasingly complex geopolitical realities, the European Union's priority ambitions are being looked at through different angles. While "the European Green Deal", "a Europe fit for the digital age", "an economy that works for the people", a "stronger Europe in the world", "Promoting our European way of life" and "A new push for European democracy" are relevant in their own right, our global environment adds an important layer that interconnects all those priorities, namely maintaining the competitiveness of the European Union, its Member States and close partners.

Universities of Applied Sciences not only work on deploying solutions to realise the twin digital and green transitions but are important contributors to the development of their regional ecosystems by activating and interconnecting all local actors. As such, **UAS help implement the conditions necessary for achieving sustained competitiveness on the ground**.



UAS do so in a three-fold manner:

1. **Scientific impact:** Universities of Applied Sciences close the gap between basic research (low TRL) and deployment of innovations (high TRL);

2. **Economic impact:** Universities of Applied Sciences close the gap between research output and their application and hence respond to the direct needs of the labour market;

3. **Societal impact:** Universities of Applied Sciences close the gap between academia and society, putting a strong emphasis on the important role of SSH & the Arts.

Implementing Horizon Europe Missions

Horizon Europe Missions have been identified to rally all ecosystem actors around five common societal challenges³ that require joining forces. Bringing together academia, industry partners, public authorities and civil society, **UAS have the potential to act as Mission catalysers**. However, as outlined by the European Commission in its Mission review⁴, the five Missions have so far failed to attract the necessary buy-in, especially from industry partners. In addition, low participation rates in the first Calls also hint to some potential as regards the Missions' prominence within the research sector. One hurdle is the differing degree of alignment between national and regional strategies towards the Missions. A joint European approach can only be successful if Member States and Associated Countries create the necessary streamlined framework conditions that incentivise buy-in from all sectorial actors, specifically also from outside academia.

While the Missions seem not to have been fully grasped by all types of actors so far, researchers that did apply for Mission Calls were sometimes surprised by the **similarities of the Call texts to the Clusters' Research and Innovation Actions (RIAs)**. While this may have advantages for everyone involved by streamlining different programme parts, it also raises the question of how evaluators are being briefed.

Finally, while all of the five selected Mission topics clearly present challenges that need to be addressed in a systemic way, we doubt that the ambitions - ranging from climate-neutral cities, to healthy soils and oceans up until beating cancer – can be sufficiently addressed in the timeframe up until 2030.

In sum, if a lacking coordination across Member States' authorities and insufficient buy-in from industry actors meet non-targeted evaluator briefings, we do have some doubts as regards the added value of the Horizon Europe Missions to the Framework Programme's objectives. A clearer focus on some Missions that are progressing well (e.g. the climate-neutral cities) could help address these doubts. Missions that do not meet their potential could instead be addressed through specific Destinations in the Clusters of Pillar 2.

³ Climate-neutral cities, soil health, climate, healthy oceans, cancer

⁴ European Commission (2023): "EU Missions to years on: assessment of progress and way forward", published on 19.7.2023, accessed on 10.01.2024: <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023DC0457&qid=1693304388860</u>





Recommendations: How to make the R&I Framework Programme even better?

UAS carry tremendous potential to equip young talents with the skills necessary to address today's challenges, interlink actors within and across regions and contribute to the EU's policy objectives through a practice-based approach. In order to make the most of this potential for the benefit of European societies, we are formulating ten specific recommendations to make the EU's Framework Programme for R&I even better.

1. Taking into consideration the increasing demands towards the research sector from politicians and society and in order to sufficiently nurture the complementary nature of basic and applied research, we join the calls from other policymakers and stakeholder organisations to **allocate a budget of 200 billon EUR to FP10**. We underline the need of these investments in R&I as a groundwork for the EU's ambitious policy agenda:

a. **Climate neutrality with net-zero technologies** can only be achieved through massive investments into R&I and deployment.

b. The EU's single market is only as competitive as the robustness of our European research and innovation chain. Next to substantial investment efforts, the necessary openness towards **R&I collaboration with trusted partners in third countries** is crucial.

c. A meaningful and sustainable competitiveness while minimising one-sided dependencies requires the necessary innovations and intellectual property to be located in Europe. In this regard, further strengthening the EU Framework Programme for R&I is the best state subsidy scheme!

2. Across the entire knowledge and innovation value chain, it is important to acknowledge the complementary importance of basic and applied research by **specific institution-type training and instructions of project evaluators**. In order to proportionally reflect the European higher education landscape, we call for a **stronger and more targeted inclusion of evaluators from UAS**.

3. In order to further boost industry-academia collaboration, specific programmes or Calls such as the former "Research for the benefit of SMEs" under the "Capacities" pillar in FP7 or the current "Accelerating uptake through open proposals for advanced SME innovation" in Horizon Europe Cluster 3 are appreciated. We recommend a mainstreaming of these or similar funding lines with "open topics" to **support intersectoral engagement between UAS and SMEs**.

4. Strong interlinkages between UAS and SMEs seem to be particularly relevant in the area of artificial intelligence. Specific funding must be earmarked for AI knowledge transfer and valorisation between UAS and SMEs. This is to ensure the speedy development of human-centred and competitive models with the necessary social acceptance. While some initiatives in this regard are ongoing on



different national⁵ and regional levels⁶, more alignment and coordination is needed on the European level.

5. In addition to the technology readiness levels (TRL), we support the introduction of societal readiness levels (SRL) in Calls touching innovations that require societal acceptance, i.e. in areas of technology deployment and climate mitigation measures. In exchange, we suggest to rethink the introduction of the "do-no-significant-harm" principle (DNSH), which raises more questions in the project proposal phase than it answers.

6. With the introduction of new instruments in Horizon Europe (i.e. Missions), we call on the Commission to **ensure avoiding duplication of efforts and funding**. An in-depth analysis of existing funding lines and possible overlaps could be a first step in this regard.

7. With the objective to support the internationalisation efforts of UAS, we call for **targeted UAS actor mobility** within the framework of the MSCA Staff Exchanges. In this context, synergies and multiplying effects could be created with national support programmes such as the UAS.International⁷ programme in Germany.

8. In order to further promote the complementary nature of basic and applied research, we suggest the publication of **specific Calls supporting cooperation between traditional universities and UAS**.

9. The impression is that many FP projects have reached a size that is sometimes difficult to manage. In addition, these very large projects are often dominated by large partners. We therefore recommend considering smaller projects that are also attractive for smaller, research-intensive organizations (like UAS), as they are more feasible to manage.

10. Project proposal writing is a demanding task in which researchers engage in fierce European competition. In order to account for varying degrees of financial and human resources across different institution types and to create an environment of equitable inclusion, we call for a **timely adoption of Work Programmes** to allow for sufficient preparation of project applications.

⁵ See for example the Centre of Expertise Applied AI (CoE AAI) at Amsterdam UAS (<u>https://www.amsterdamuas.com/appliedai</u>) or in our "UAS'ers guide to building innovation ecosystems" (2022, pp. 12ff.: <u>https://uas4europe.eu/wp-content/uploads/2022/11/A-UASers-guide-to-building-innovation-ecosystems.pdf</u>)

⁶ See for example "KI-Transfer Plus", funded by the Bavarian State Government: <u>https://www.appliedai.de/en/solutions-services/ai-programs/ki-transfer-plus</u>

⁷ Internationalisation of Universities of Applied Sciences, UAS.International, administered by the German Academic Exchange Service (DAAD): <u>https://www.daad.de/en/information-services-for-higher-education-institutions/further-information-on-daad-programmes/uasinternational/</u>



UAS4EUROPE – Who we are

Founded in 2016, UAS4EUROPE is an informal network representing 150 Universities of Applied Sciences (UAS) in the European Research Area (ERA). The network aims to strengthen the visibility and inclusion of UAS in ERA-related R&I policies and programmes by providing a platform for knowledge exchange and policy advocacy.

More about UAS4EUROPE: www.uas4europe.eu

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