



Brussels, 18 September 2017

POSITION PAPER ON FP9

[UAS4EUROPE](#), the networking platform for universities of applied sciences (UAS) in Europe, presents its position paper on the ninth European Framework Programme for Research and Innovation (FP9). UAS4EUROPE believes that the universities of applied sciences have an important role to play in FP9. Horizon 2020 is a first and much appreciated step forward to cover the full research and innovation chain in which opportunities are within reach also for UAS. However, based on our [statement on the mid-term evaluation on Horizon 2020, contribution to the European Innovation Council](#) (EIC) and the [UAS4EUROPE position paper](#), as well as our internal FP9 survey, we would like to provide our recommendations for a new programme that will even better integrate UAS.

Main recommendations

- Include **Smart Partnerships for Regional Impact (SPFRI)**, which foster the collaboration between universities of applied sciences, universities, RTOs, companies, regions and other public and private stakeholders with strong added value on the basis of excellence
- An increase of the budget to **EUR 120 billion** for seven years while at the same time ensuring genuine research funding within the Structural Funds
- Keep the **three-pillar-structure**
- Ensure **better integration of social sciences, humanities and the arts (SSHA)** and simultaneously the **inclusion of broader themes relevant to UAS**, such as social work, artistic research and design, applied linguistics, educational sciences and a broader understanding of the health and care challenges
- **Address problems and challenges with achieving genuine synergies with Structural Funds**, whilst avoiding budget cuts to the Structural Funds
- **Focus on all forms of innovation**, from incremental to disruptive and breakthrough innovation, but also social innovation and business model innovation
- **Make FP9 as simple as possible**
- **Ensure a truly 'open to the world' FP9**

Response to the Lamy Report

On 3 July, the EC published the [report LAB-FAB-APP](#), which is the work of the independent High Level Group on maximising the impact of EU Research & Innovation Programmes. Although UAS4EUROPE presents its own views below, UAS4EUROPE very much welcomes the recommendations and actions in the report, which it has also duly taken into account in its own visions for FP9. UAS4EUROPE is especially happy to see a clear focus on not just doing pure research and/or innovation (Lab and Fab), but also the underlining of applications for the benefit of all (App) and the focus on excellent education. Without excellent education, Europe cannot excel in research and innovation. In these areas, particularly the UAS have a role to play. Another element to be pointed out here is the future of partnerships, where the High Level Group sees the rise of new types of partnerships, such as 'P4Ps' or 'P4.0s' where 'people' are working together with the public and private sector. This is illustrated below by UAS4EUROPE with the 'Smart Partnerships for Regional Impact'.

Smart Partnerships for Regional Impact (SPFRI)

One of the suggestions for FP9 would be to form regional partnerships with UAS, which can serve as a means for **ensuring that the projects have the required impact by getting applied sciences actors**, such as the UAS (with their regional networks and applied research and innovation skills) on board. The **approach of bottom-up driven, regionally anchored projects is at the core of development of regional economic growth**

Example on SPFRI in Horizon 2020. Source: www.euresearch.eu

About AquaNES



Content Summary

AquaNES is a 30-member consortium coordinated by the University of Applied Sciences and Arts Northwestern Switzerland. Using 13 different test sites, the project aims to demonstrate how natural and engineered methods can be combined for optimal, resource-efficient water treatment and management, opening new market opportunities for these combined systems in Europe and abroad.

Facts and Figures

Project Name:	AquaNES – Demonstrating synergies in combined natural and engineered processes for water treatment systems
Research Area:	Environment, Water treatment
Organisations:	School of Life Sciences, University of Applied Sciences and Arts Northwestern Switzerland (Coordinator), and 29 partners
Start/End Date:	01.06.2016 – 31.05.2019
Duration:	3 years
Project Costs:	€10.74 million
Project Funding:	€8.71 million
Programme:	Horizon 2020 Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw Materials
More Information:	www.aquan.es

(generating new jobs) and wellbeing. UAS4EUROPE has already started this work under its concept of ‘**Smart Partnerships for Regional Impact**’ (SPFRI). SPFRI foster collaboration between universities of applied sciences, universities, RTOs, companies, regional authorities, citizens, and other public and private stakeholders with strong added value on the basis of **excellence**. When applied sciences actors, such as UAS, are on board, the **impact** will be enhanced because research in UAS is demand-driven, addressing the questions and the needs of society. Hence, the wish to involve the **citizens in research** is met as mentioned in the Lamy report.

Budget

Horizon 2020 has seen a substantial increase in budget compared to FP7. We believe that the current budget of 80 billion for the period 2014-2020 would not be enough for FP9. In our opinion, an **increase is needed in order to face the international competition**, but also due to low success rates, which have led to the rejection of thousands of good projects. Indeed, as has also been stated in the [results of the interim evaluation of Horizon 2020](#), the funding programme has a European added value, but suffers from underfunding. In fact, [a fourfold of the budget would be needed](#) to fund all excellent projects. Nevertheless, UAS4EUROPE would like to be realistic and thus proposes, given the circumstances such as the Brexit, a budget of **EUR 120 billion** for FP9 for a period of seven years. Next to this, UAS4EUROPE also calls upon the member states and associated countries to ensure adequate funding for research and innovation at the national level, to avoid ‘flooding’ of FP9 as has been the case with Horizon 2020. Finally, the budget should be spent merely on **civilian research**. If the European Commission would like to fund defense research, separate funding should be made available outside of the current funding structures. It should be ensured that no funding is taken away from civilian research to benefit defense research.

About FOWARIM

The objective of the project ‘Fostering Water-Agriculture Research and Innovation in Malta (FOWARIM)’ is to strengthen the research capacity of the Malta College of Arts, Science & Technology (MCAST)’s Water Research and Training Centre in 4 crucial themes related to the field of water use in agriculture:

- Decreasing Water Demand
- Making Use of Alternative Sources of Water
- Renewable Desalinization, On-Farm Desalinization and Utilization of Saline Water and
- Decreasing Negative Environmental Externalities Caused by Nutrient-Rich Farm Waters.

This will be achieved by creating a favourable environment for capacity building targeting Maltese researchers, research institutions networking, research policy development. MCAST will be supported in addressing research deficiencies and networking gaps by EU partners of established scientific excellence in the targeted research topics. The project should lead to strengthening MCAST’s research and S&T capacity in water use in agriculture, enhance the dynamism between the different partners, extending the partnership of research institutions in the sector in question contribute, to an increase in peer-reviewed publications and complement in more ways than one Malta’s Smart Specialization Strategy.

Example of a collaboration project with a UAS. Source: <http://fowarim.eu>

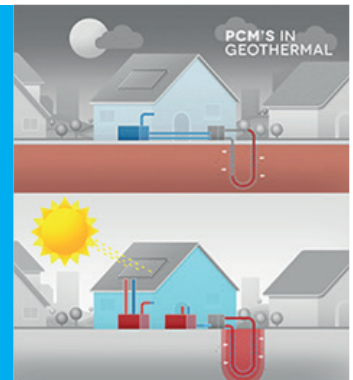


About TESSe2b

TESSe2b Project – Thermal Energy Storage Systems for Energy Efficient Buildings is a four-year Horizon 2020 project, which develops an integrated solution for residential building energy storage using solar and geothermal energy, with the purpose of correcting the mismatch that often occurs between the supply and demand of energy in residential buildings.

TESSe2b designs, develops, validates and demonstrates a modular and low cost thermal storage technology based on solar collectors and highly efficient geothermal heat pumps for heating, cooling and domestic hot water (DHW) production. That is achieved by integrating compact Thermal Energy Storage Tanks with Phase Change Materials (PCM TES) coupled with enhanced Phase Change Materials inside the borehole heat exchangers (BHEs), and an advanced energy management smart self-learning control system. Demonstration and on-site monitoring evaluation of small scale TESSe2b solution at a building in three pilot sites (Austria, Spain, Cyprus) conducted with the aim of evaluate the system's integration into building space, assess the impact of TESSe2b solution in different climates and provide evidence about its overall technical and economic feasibility.

Coordinator: Polytechnic Institute of Setubal (Portugal)



Example of a UAS contribution to societal challenges. Source: www.tesse2b.eu

Structure and Themes

Horizon 2020 currently offers a structure, which is fairly easy to understand. Therefore, for the sake of its success, there is good evidence for continuity of the **three-pillar-structure**. Excellent science deserves, as is the case now, its own pillar. The **second and third pillar could be restructured** to better reflect the needs of both the civil society and the research and innovation community. Given the discussion on the **integration of the UN Sustainable Development Goals (SDGs)**, we suggest to only include those SDGs in the societal challenges in a mission-oriented way that are of European added value. Given the discussions on the European Innovation Council (EIC) to only support breakthrough innovation, we believe that all forms of innovation, from incremental to disruptive and breakthrough innovation, but also social innovation and business model innovation should be supported. **We support the creation of the EIC in FP9**, but at the same time we would like to urge the European Commission to guarantee **incremental innovation**, which is close to the heart of UAS, as well as **industrial competitiveness** currently supported by the Industrial Leadership pillar, to be given continued and firm support in FP9.

Further, FP9 should reserve some funding for topics defined **top-down and according to political and societal priorities** (migrants, terrorism), but also open up the majority of funding for proposals developed **bottom-up** by scientists and innovators, based on their understanding of the most fruitful and pressing topics to be researched. Many research themes of UAS, such as **social work, artistic research and design, architecture and educational sciences, and a broader societal understanding of health and care challenges**, deserve more attention. These themes are from a societal point of view highly relevant and should be acknowledged by FP9. Currently, it is very hard to find suitable opportunities in Horizon 2020. Moreover, **social sciences**,

humanities and the arts (SSHA) need to be better integrated and recognised. The support of multidisciplinary projects should be encouraged, not only in theory, but also in practice.

Horizon 2020 is, to a great extent, a **programme for big consortia**, involving many partners in multiple countries. Within bigger consortia the costs for adjustment and friction losses are much higher than in smaller ones. Given the UAS' good relations with regional actors, industry, and SMEs, and their expertise in working mainly with smaller projects, calls requiring **smaller consortia** (with at least one applied sciences actor) would be a good way to stimulate stronger participation of UAS in the forthcoming Framework Programme.

Instruments

The FPs have grown over the years in number of programmes and instruments and therefore offer a plethora of research and innovation funding possibilities. However, this development has not necessarily made it easier to understand where one can best apply. Although Horizon 2020 is more simplified than previous programmes, it is still highly complex. UAS4EUROPE appreciates the light set up of the COST Actions and the ERA-nets with their support for networking and attempt to ensure alignment with national funding and priorities, which should be continued in FP9. UAS4EUROPE has already mentioned in its statement on the mid-term review of Horizon 2020 that UAS are pleased with the Technology Readiness Levels (TRL) as an indicator, particularly because applied sciences foster close-to-market research. We would like to additionally suggest including other complimentary Readiness Levels, such as **Social Readiness Levels (SRLs)**, to value and appreciate the non-technological research. UAS appreciate (smaller) projects which allow for a **'fast-track' innovation** with rapid decision processes. Such projects are especially suited for SMEs and UAS, as the current Fast Track to Innovation (FTI) shows. We believe the EIC should host instruments that are better tailored to attract sufficient venture capitalists and business angel investments, enabling the scaling-up of companies. **EIC should promote closer cooperation between higher education institutions and companies, especially SMEs, to help transfer research results, ideas, and innovations of companies and higher education institutions into concrete marketable products and services useful for the society at large**, as to also keep our educational programmes innovative whilst matching the Human Capital Agenda.

Example of a UAS participation in a JTI

Source: www.bbi-europe.eu/projects/biocannodo

About BioCannDo

Bio-based solutions will be vital in driving Europe's ambitions to become a smarter, greener and more circular economy. A core component of a successful bioeconomy sector will be public support for the benefits. Unfortunately, in many settings, there is little awareness or enthusiasm yet.

The BioCannDo project started in 2016 and will help bridge awareness gaps, and inform about the potential and long-term benefits of a vibrant bioeconomy sector to the wider public. The project consortium consists of 6 partners, one of them the Avans University of Applied Sciences in Breda in the Netherlands. The project aims to show to the public that the bio-based economy offers something desirable, with new products, functionalities and day-to-day applications. BioCannDo will also offer a platform for feedback, interaction and engagement in the wider discussion on the value of a bio-based economy.



Implementation, Evaluation and Simplification

Horizon 2020 includes the criteria excellence, impact and implementation. We believe that **excellence should remain the most important criterion for FP9**, ensuring that only the best, highest quality proposals are funded. **Impact** is also a crucial element and an element we can deliver strongly on, as mentioned in the 'Smart Partnerships for Regional Impact' chapter. However, it should not only be about economic impact, but also social, environmental, health impact, etc. Expectations need to be clearer stipulated. Taking into account simplification, UAS4EUROPE expresses a wish for **further simplification** and strongly supports the suggestions presented for example in the European Commission's '[Proposal for a Regulation of the European Parliament and of the Council on the financial rules \(...\)](#)': amongst others a single set of rules for all programmes, clearer guidelines, and cross-reliance on audits. The EC should ensure the least possible administrative overhead, as in many occasions the European research and innovation framework programme comes with more overhead than UAS can invest in. A single set of rules for FP9 should also apply to the future EIC, as well as the rules for the JTIs. The current structure of one-stage and two-stage calls needs to be maintained. FP9 should be a funding programme, which gives out **grants** to public institutions, and not loans. Loans should be confined to companies and large industry, whereas UAS should be able to rely on grants.

UAS4EUROPE sees that the entire evaluation process should become more transparent. More extensive feedback can help understand where and how to improve. Further, **multidisciplinary projects** must be supported as they are inherent to UAS, they should also be supported and evaluated by experts with multidisciplinary backgrounds. Since UAS researchers often have such a background, we encourage the EC to **select UAS researchers as expert evaluators for multidisciplinary and applied research and innovation projects**.

Open to the World

Many of the challenges Europe encounters are in fact global challenges. Seeking collaboration with partners outside of Europe is therefore imperative. UAS4EUROPE thinks that international cooperation has to be stepped up in FP9, making it a truly '**open to the world**' programme. So far, Horizon 2020 has seen a decrease rather than an increase of participation of third countries. The participation of third countries not associated to Horizon 2020 dropped to 2.4% compared to 4.9% (collaborative projects) in FP7, despite the fact that the international cooperation relevance flagged topics was raised from 12% in FP7 to 27% in Horizon 2020. FP9 needs to become more open and we suggest here to explore how third countries can participate with their own co-funding in FP9 collaborative projects.



ANNEX: WHO WE ARE, POSITION, AND WHO WE REPRESENT

The Role and Position of UAS4EUROPE

[UAS4EUROPE](#) is a networking platform, the voice of European universities of applied sciences (UAS), in the field of applied research and innovation.

UAS4EUROPE represents the five founding organisations:

- European Association of Institutions in Higher Education ([EURASHE](#)), representing over 600 institutions in over 40 countries within and outside the European Higher Education area
- Universities of Applied Sciences Network ([UASnet](#)), representing over 150 institutions in eight European countries through national Rectors' Conferences
- [swissuniversities](#) representing Swiss institutions of higher education
- [Hochschule Bayern e.V.](#), representing the 20 Bavarian Universities of Applied Sciences
- [Austrian FHK](#), representing all 21 Austrian Universities of Applied Sciences

UAS4EUROPE aims to:

- Represent European UAS in Brussels in the field of applied research and innovation
- Increase the visibility of UAS4EUROPE in Brussels, at the national and institutional level
- Contribute to shaping the European research funding programmes
- Inform the national and institutional level actors on the developments on the EU-level

Definition of Research by the UAS

UAS place a strong emphasis on a deep entanglement of providing high-quality higher education, scientific research and social services, which translate into practical training, practical applications and practical innovation. In the UAS, knowledge valorisation and practice-oriented scientific research is intertwined with the educational activities, such as labs, projects and, not the least, through internships and workplace learning. This professional orientation during their studies makes the UAS student a useful contributor to the labor market and increases the graduate's working life and employability skills.

In addition, UAS students from time to time also participate in practical research tasks that culminate in innovation projects, which teachers have agreed on with the employer. This provides a win-win situation for both UAS and the employer.

Universities of Applied Sciences (UAS) are higher education institutes with a special focus on applied training and research. The UAS focus on two priorities:

1. Delivering applied and practice-oriented tertiary education, which includes specialised degrees with an explicit professional orientation.
2. Applied research, which encompasses practice-oriented research and development (R&D) activities.

The research conducted by UAS can be defined in different ways. In order to clarify the role UAS have to play in the broader European research and innovation landscape, the overview below gives an indication in which types of research the UAS broadly engage themselves:

- **Focus on practical applicability:** research at UAS focuses on practical innovative solutions for companies, governments and societal organisations. More important than scientific publications in magazines or books, UAS primarily want to bring concrete solutions to the workplace.
- **Demand driven and targeted research:** through its close contact with the labor market, UAS education directly addresses and responds to a (future) demand from either the business world, organisation and/or government as applied research is demand driven and applied to changes within the society.
- **Collaborative and multidisciplinary research:** UAS researchers and world of work actors work closely together with a view on building synergies most commonly found in collaborations or clusters with multiple companies or institutions, which are active in the same domain and complement each other (co-creation).
- **Connected to education:** applied research outcomes are brought back to and used in the development of the curricula, in order to offer state of the art knowledge to students and make them reflective practitioners with the right set of skills for the labour market.

UAS across Europe

UAS are present in many European countries and are known by different names. The list below provides an overview of UAS in different languages and countries across Europe:

Country	Name
Austria	Fachhochschule
Belgium	Hogeschool/Haute école
Croatia	Veleučilište
Czech Republic	Vysoká škola Neuniverzitního Typu
Denmark	Professionshøjskole/Erhvervsakademi/University College
Estonia	Rakenduskõrgkool
Finland	Ammattikorkeakoulu (AMK)/Yrkeshögskola (YH)
Germany	Fachhochschule/Hochschule für angewandte Wissenschaften/Technische Hochschule
Greece	Technogiko Ekpaideutiko Idryma/T.E.I.
Ireland	Institute of Technology
Lithuania	Kolegija
Netherlands	Hogeschool (HBO)
Norway	Høyskole
Portugal	Instituto Superior Politécnico
Spain	Universidad Politécnica
Sweden	Högskola
Switzerland	Fachhochschule/Haute Ecole Spécialisée/Scuola Universitaria Professionale