
'Positioning Swiss Universities of Applied Sciences in the European research and innovation landscape: What opportunities does Horizon 2020 offer to realise the institutional strategy?'



Source: Confindustriaservizi, 2014

Nadine Kleger (Trainee for Innovation)
Brussels, June 2016

This report is an outcome of the University of Applied Sciences (UAS)-traineeship at **SwissCore**. The UAS-traineeship is a measure of the “Internationalisation of the UAS”-Project (2013-2016) that was established by the State Secretariat for Education, Research and Innovation (SERI) and has been coordinated by swissuniversities (Rectors’ Conference of Swiss Higher Education Institutions).

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Executive Summary

The aim of the report 'Positioning Swiss UAS in the European research and innovation landscape' is to examine what opportunities Horizon 2020 offers to realise the institutional strategy of Swiss UAS. The report tries to clarify the role of (Swiss) UAS in the European research and innovation landscape. The actual problem seems to be that although Horizon 2020 is ideal for applied research institutions given the fact that it covers the full research and innovation cycle, UAS in fact still lag behind in their participation. Horizon 2020 in general suits the needs of UAS with their strong focus on innovation and applied research. Swiss UAS participate well in the European Framework Programmes in comparison to other UAS, however compared to overall Swiss participation, they still need to step up their efforts. The report examines what the gaps, obstacles and opportunities are and if the programme is not structured to their needs or if it is rather an institutional problem. The information was gathered on the basis of interviews, desk research, and validation of information within a thematic workshop.

The **gaps and obstacles** exist at **European, national/cantonal and institutional level**. On **European** level the general presence of UAS in the European framework programme for research and innovation Horizon 2020 are considerably low despite a rather strong focus on applied science. It also needs to be stated that Horizon 2020 is a complex landscape for newcomers. Currently, a specific UAS instrument within Horizon 2020 is lacking which could fit the needs of UAS specifically, thereby raising their participation. The UAS namely have a unique position in delivering applied research and innovation on the one hand and to act as an important link between Small and medium-sized enterprises (SMEs) and industry, traditional universities, societal organisations and Vocational education and training (VET) and other educational institutions in the region on the other hand. On a **national and/or cantonal** level different levels of autonomy in terms of funding, hiring procedures of research staff and leadership could be detected, as different cantons are financing the seven public UAS. Moreover it was stated on several occasions that the awareness and perception of the role in society and politics could be improved to increase visibility of the UAS. The main gaps were discovered on the **institutional** level itself, where it needs to be pointed out that public UAS in Switzerland have different levels and starting points to realise their international strategy, if available.

- The first of four gaps in this area is therefore the **incentive** for researchers and whole institutions **to engage internationally**. Due to plenty of collaborations in the local and regional area, an international focus might not be available or deemed needed.
- Moreover, in some instances **an international strategy or at least an EU focus, a common roadmap with the definition of individual focus points** per area or department or simply the in depth thought about own strengths is missing.
- In the cases where the will of international collaboration is already very prominent and researchers are active in applying for European funding projects, there is a clear **need for additional administrative resources**, as was mentioned by all interviewed UAS. This specifically involves tracking calls for whole institutions or single departments, working closely with researchers and becoming an expert in writing applications. Even though Euresearch is well established in supporting UAS, researchers have difficulties to cope with the burden of administrative workload involved in applying to possible funding projects.
- Lastly, efforts is needed in **networking**, in establishing **contacts** in the specific research areas of a UAS and in acquiring simple **lobbying knowledge**. Information and insights on how to lobby for own causes is only marginally available within the institutions themselves. The problematic side effect of this is that agenda setting and networking access is not possible or available. Having connections and contacts are evidently needed to collect the know-how from different angles.

The main conclusion to draw is that Horizon 2020 does offer various opportunities, however there are no specific funding instruments for UAS within Europe and Horizon 2020. Nevertheless, there are other suitable options for applied focused research that are open to UAS and their research activity, mainly within pillar two (Industrial Leadership) and three (Societal Challenges) of Horizon 2020. Horizon 2020 is very competitive and represents an excellent way to collaborate outside Switzerland in the applied research area.

From the report it follows that Horizon 2020 provides the UAS a framework for funding opportunities, but also allows for networking, collaboration and agenda-setting. The funding opportunities of Horizon 2020 generally suit the interests of the Swiss UAS, as they have a strong focus on collaborations with the industry and SMEs and conduct innovative applied research in their field on regional, national but also international level through cooperation with partners. Nevertheless, Swiss UAS still have a way to go to uncover their big 'sleeping' potential. The report therefore puts forward the following recommendations:

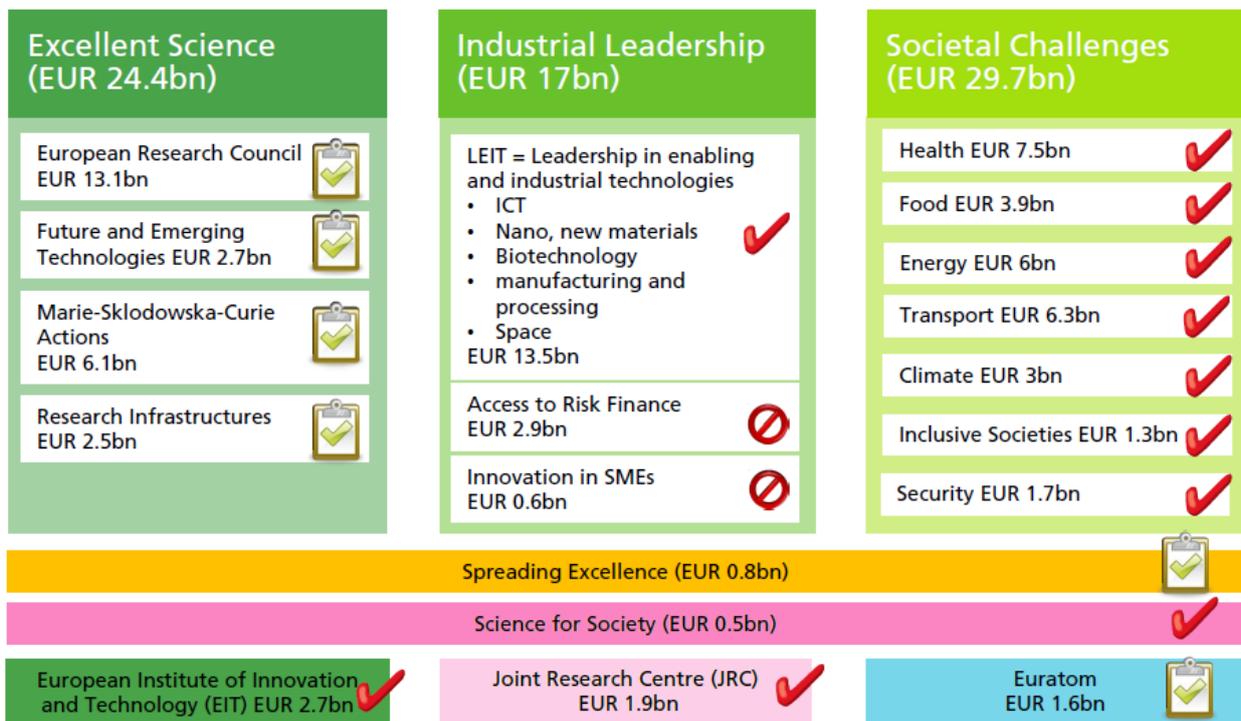
- UAS need to have a **certain level of autonomy**, meaning that they can decide within the board how to invest their budget, how to position themselves and who to hire.
- To have a strong and successful European presence a **concrete strategy or at least a vision linked to EU opportunities should be set**.
- **UAS could hire dedicated in-house staff mainly focusing on international collaboration**, tracking calls for whole institutions or single departments, working closely with researchers and becoming experts in writing applications.
- UAS should develop their **networking & lobbying activities**.
- A different **funding solution** would help to increase the activity in **applied research** and create a motivation instrument to be more active in the field of research.

To conclude, Horizon 2020 does seem to suit the needs of the UAS however, on an institutional level, the biggest challenges lay ahead.

1 Background

Since 2004 and until the end of the Seventh Framework Programme for Research and Technological Development (FP7), Switzerland was fully associated to the European Framework Programmes (FP) for Research and Innovation. After signing a bilateral agreement with the EU, Switzerland was able to participate, with the status of an associate country, in FP6 (2002-2006), the Euratom Programme and FP7 (2007-2013). As a fully associated country, Switzerland was entitled to take part in projects, programming and steering committees and expert groups. Before 2004, individual and institutional participation in the EU FP was possible as from 1987 (i.e. FP2), but under third country conditions.

As a consequence of the mass immigration initiative adopted by the Swiss population on 9 February 2014, Switzerland was demoted to the status of an 'industrialized third country'. However, since September 2014, Switzerland is partially associated to the current EU FP, Horizon 2020. With the partial association agreement of 5 December 2014 – retroactive entry into force 15 September 2014 –, Switzerland is allowed to participate in selected areas of Horizon 2020 with an associated country status (see Figure 1).



Switzerland's participation in Horizon 2020 (As of: 15.09.2014)

CH Association
(Sept. 2014 -Dec. 2016)

CH participation as third country

No CH participation

Source: SERI, 2016b

Figure 1: Switzerland's participation in Horizon 2020

Within the pillars of Excellent Science, Spreading Excellence and Widening Participation and Euratom, Switzerland is treated as an associated country, whereas in all other areas Switzerland is treated as a third country and therefore is not entitled to any EU research funding (see overview of Switzerland's participation 2014-2016 in Horizon 2020 above). This partial association is in place until the end of 2016. The future status and association to Horizon 2020 depends on the continuation of the free movement of persons in Switzerland and the ratification of the Croatia Protocol (SERI, 2016a).

Every organisation in Switzerland is affected by the current status, which means that also UAS need to obey by the rules as laid down by this partial association. Swiss UAS have in comparison with UAS from other European countries a relatively good track record for participation in EU FP. The current Swiss status does pose challenges to keep up this track record. And the current Swiss status is in a sense a setback, because Horizon 2020 for the first time offers a programme which integrates the full research and innovation cycle and hence offers in theory many opportunities for UAS to participate (see more chapter 4).

But, not everything can be 'blamed' on the Swiss status. Good participation also depends on the institutional organisation to be able to participate successfully in projects, as well as the general tendency in a country or region that international cooperation is of importance not only to the institution, but to the region and country as a whole (given the fact that UAS are important regional players within the quadruple helix of government authorities, business, citizens and knowledge institutions).

The UAS have on several occasions been invited by the European Commission (EC) to participate more intensively in research cooperation and innovation projects funded with European money. To bring sustainable economic recovery, a dynamic and flexible European higher education sector will strive for innovation integrating education and research at all levels, as was stated in the 2009 Leuven Communiqué of the European Education and Research Ministers. Robert-Jan Smits, the Director-General for Research and Innovation at DG Research and Innovation stated at the BayFOR conference "Mobilizing Universities of Applied Sciences for Horizon 2020" in February 2015 that the added value of the UAS is to bring research results to the market, reach out to regional partners and foster cooperation with industry, in particular SMEs. At the EURASHE 25th Annual Conference in April 2015, Commissioner for Research, Science and Innovation Carlos Moedas expressed his desire to invest more in European innovation as a whole and wished to see the European Research Area reach its full potential. The same was expressed at the UASnet conference in Copenhagen (2014), where Commission officials stated that the innovative power of this sector is needed in the European field.

Europe needs more involvement of UAS to showcase their strength in applied research and innovation. When we look at the European objectives in the area of innovation and growth, participation is unavoidable. Not only has the potential impact of UAS at the European level not fully been used, but also the impact of the European challenge-based approach to research must be increased to realise the UAS potential further and by focusing on their role as connectors. This will lead to greater participation and more active contribution of the UAS to European research and innovation, Horizon 2020 and its successors (UAS4EUROPE, 2016).

swissuniversities, as national rectors' conference and coordinator of the higher education sector, acts on international level for all Swiss universities, UAS and universities of teacher education in Switzerland. The Internationalisation of Swiss Universities of Applied Sciences and Arts project, which runs from 2013 to 2016, focuses on profiling practice-oriented higher education

and strengthening its international position. A total amount of CHF 4 million, funded by the State Secretariat for Education, Research and Innovation (SERI), is invested in the four parts of the project: Implementation & Coordination, Communication & Networking, Joint Projects, and Cooperation & Development. The goal is to support/help the UAS to develop further their participation in the framework programme and to ensure that Swiss UAS have a valuable international network of partners in the fields of education, business and industry, culture, and society that corresponds to their needs. At the same time it seeks to ensure that the UAS are well positioned in global higher education. A continuation of the implemented programme is currently not foreseen and the existing investment should be perceived as a kick-off for a stronger international presence and access to networks at the individual UAS level (swissuniversities, 2015b, swissuniversities, 2015c). The Swiss UAS are independent in choosing to intensify their collaboration with partners such as other UAS, the swissnexes, SwissCore, international committees, European network and lobby stakeholders' associations.

2 Problem analysis, research question and goals

The aim of this paper is to answer the main question formulated here: **What opportunities does Horizon 2020 offer to realise the institutional strategy of Swiss UAS?**

The actual problem seems to be that although Horizon 2020 is ideal for applied research institutions as was mentioned in chapter 1, UAS in fact still lag behind in their participation. Horizon 2020 should suit the needs of UAS with its strong focus on innovation and applied research. Swiss UAS participate well in average (some do extremely well, but some others barely) in the European Framework Programmes, however in general UAS do not. Within this report answers are provided to why this is the case, if the programme is not structured to the UAS' needs or if it is rather an institutional problem.

Additionally, sub-questions were designed to create support in finding concrete answers:

- How are UAS participating in Horizon 2020? (see chapter 3)
- What does Horizon 2020 offer the UAS? (see chapter 4)
- What are the obstacles faced by UAS to participate? (see chapter 5)

The goal of the paper is to give swissuniversities and the individual Swiss UAS a better idea of the position of the UAS in the European research and innovation landscape and more specifically in the opportunities provided by European funding instruments for Swiss UAS. By mapping this landscape, **gaps and opportunities can be identified in order to improve the Swiss UAS presence in Europe**. This means that the paper will deal with a two-way street: on the one hand to examine if the Horizon 2020 instruments fit the needs of the Swiss UAS and on the other hand to identify the opportunities and obstacles within the UAS for Horizon 2020 participation. The information can then feed into the mid-term review of Horizon 2020, which takes stock of Horizon 2020 from 2014 until 2016 and presents ideas for the future time left for Horizon 2020 and beyond.

In order to successfully prepare and work on the paper, the following methodology was used:

- desk research via [EU Open Data Portal of Cordis](#);
- desk research via EC websites on FP7 interim evaluation and monitoring reports;
- desk research via SERI report on participation of UAS in FP7 and Horizon 2020;
- interviews with swissuniversities and selected successful participants from Swiss and European UAS, umbrella organisations (EUA, EURASHE, UASnet) and innovation offices in Brussels;
- organisation of a UAS workshop to validate the findings.

In chapter three, the specificities of UAS as higher education institutions are explained and differences across Europe shown. The participation of Switzerland in FP7 and Horizon per institution and programme is then shown and compared with its European neighbours. Chapter four shows the existing opportunities for UAS in Horizon 2020 and what the framework programme has to offer. Chapter five highlights the obstacles, barriers and challenges to successfully participate within Horizon 2020 as UAS. Finally, chapter six makes conclusions and gives recommendations for a stronger UAS presence within the European research landscape.

3 Universities of Applied Sciences

UAS in Switzerland and in Europe use the increasing impact of applied research and innovation to enhance their competitiveness and their ability to create growth and jobs. They teach theoretically sound and practice-oriented, practice applied research and offer continuing education. Apart from the above, they make their knowledge available to companies and institutions from the fields of economy, society and culture and therefore bring the key actors together on regional, national, European and international level. They not only offer a high relevance to practice and the ability to increase companies' innovative strength and provide the employment market with the needed experts. They also provide excellent job and career prospects for their graduates and lay the foundation for sustainable economic, cultural and social progress. When it comes to a description of key strengths and advantages, on the one hand UAS have solid local roots and their direct contact with companies, other universities as well as private and public institutions. On the other hand the practice orientation with professional experiences from the respective industry or study field. When it comes to teaching staff and students it is as important as their innovative strength to address and solve "Real World" problems quickly (swissuniversities, 2015a, EURASHE & HAPHE, 2014).

3.1 Universities of Applied Sciences in Switzerland

Seven public and one private UAS belong to the Swiss landscape of higher education. The public UAS landscape consists of the UAS in the western part of Switzerland (HES-SO), the north-western part (FHNW), the area of Berne (BFH), the area of Zurich (ZFH), the eastern part (FHO), the central part (HSLU) and the southern part (SUPSI). Whereas the seven public UAS received their Federal Council approval in 1998, the two private followed in 2005 (Kalaidos) and 2008 (Roches-Gruyère)¹. All public UAS are run by one or more canton(s) (SERI 2016c). The degree of autonomy of each UAS depends on the involved cantons.

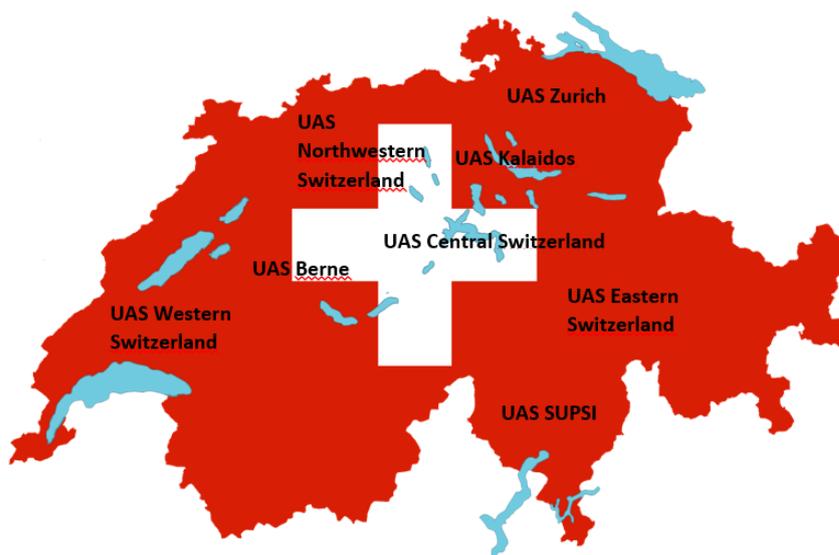


Figure 2: Overview of UAS in Switzerland

¹ Will close in Summer 2016 (SKBF CSRE, Bildungsbericht Schweiz 2014, p. 210)

In a report from the Center for Higher Education Policy Studies (CHEPS) from 2009 the funding of applied research in Europe is being explained in broad terms. Generally, research at UAS is funded through three main funding sources. The core funding in most countries is represented by the general budget. Since UAS are mostly seen as teaching and not as research institutions, this results in either **missing or having very limited funding for applied research**. Secondly, research and development grants, mostly provided by research councils or other public agencies, are usually competitive and fund specific research projects. There are specifically designed projects for the UAS sector but also competitions with traditional universities. However, as the selection criteria in national research agencies tend to prefer basic over applied research, the **competition often puts UAS in a weak position**. The third option is done with contract research, either from private companies or public partners. Especially contract research seems to grow drastically whereas the relative importance of all three sources varies considerably across countries in Europe (CHEPS, 2009).

As European funding is becoming more and more important for UAS, **Euresearch** is mandated by the State Secretariat for Education, Research and Innovation to provide targeted information, hands-on advice and transnational partnering related to European research and innovation programmes. Besides a Head Office in Berne and Regional Offices in each University and the Swiss Federal Institutes of Technology, Euresearch has some **Contact Points at the Universities of Applied Sciences**. The aim is to increase the participation of researchers based at the UAS and of SMEs in Horizon 2020 and related programmes. Specific services and support structures, such as the UAS and SME Contact Points have been created to lay the structural foundations for the successful engagement of UAS and SME participants on a European level. The Regional Office however answers concrete questions regarding the writing and submitting of Horizon 2020 projects. There are Euresearch Contact Points at FHNW, HES-SO, ZHAW as part of ZFH, a Regional Office for HSLU and SME Contact Points at BFH and ZHAW. No Euresearch UAS and SME Contact Points are available for University of Applied Sciences St. Gallen and southern Switzerland. Instead there is a Regional Office responsible in St. Gallen and Lugano for the two public Universities of Applied Sciences. No Euresearch Contact Point is available for the privately held Kalaidos University of Applied Sciences (Euresearch, 2016).

3.2 Universities of Applied Sciences in Europe and terminology

The joint report "Professional Higher Education in Europe" from EURASHE and HAPHE of 2014 shows recent changes in the European education landscape. Firstly, an "academic drift" resulted in profiling of non-academic education institutions towards traditional universities, often accompanied with success (e.g. Universities of Applied Sciences in Germany). Secondly, a type of institution was created with the main goal of employability, which was heavily damaged due to the economic and financial crisis worldwide in 2009. The report compared the professional higher education (PHE) with the traditional higher education and stated that the PHE has not yet achieved the same level of integration in the European Higher Education Area (EHEA), also based on the fact, that there is no consensus on the characteristics of PHE across the various actors in Europe. Right now, different concepts exist within the European landscape. The definition "Universities of Applied Sciences" goes back to the German translation for '*Hochschule für angewandte Wissenschaften*'. Today both Switzerland and Austria use the same description, followed by the Netherlands, Finland and the Baltic countries. Other countries use different native terms (Polytechnico in Portugal and Institute of Technology in Ireland) and perceive UAS as suitable in an international context. The term "university college" is being used in Denmark and the Dutch part of Belgium (Flanders), whereas for example Croatia chose the term "University Colleges of Applied Sciences" (EURASHE & HAPHE, 2014). To conclude, although there are differences in terminology, still enough common ground is available to understand

what one talks about when referring to UAS. Even though the standards and quality levels are very different amongst the different countries and different possibilities when it comes to achieving a Bachelor, Master or PhD degree. Until today, no official definition by OECD for the term UAS is available. UAS based on a career perspective as well as from a research point of view are still seen as the little brother of the traditional academic universities. For instance this is seen when looking at the diploma and education system and its differences. The European Qualifications Framework (EQF) currently defines 8 levels of education, whereas levels 5-8 define the higher education. The EQF level 6 stands for the first cycle (Bachelor's Degree), level 7 for the second cycle (Master's Degree) and level 8 for the third cycle (Doctorate, PhD) (European Commission, 2016a). UAS are predominantly able to give Bachelor's and Master's Degrees. Only the Irish version of UAS is eligible to offer education and adequate degree on level 8 (EURASHE & Haphe, 2014). According to inputs from various countries, attempts to change the current situation is seen all over the European education landscape (see Annex).

3.3 Swiss UAS participation in European Framework Programmes

The following section gives an overview of Swiss UAS involved in FP7 and Horizon 2020 projects. This is followed by an overview of European participation of UAS in Horizon 2020 in order to give a good comparison within Switzerland. Moreover, it shows in which sections of Horizon 2020 the Swiss UAS are most active.

Swiss UAS are highly relevant to practice, increase companies' innovative strength and provide the employment market with the experts it needs. The UAS therefore provide excellent job and career prospects for their graduates. They lay the foundation for sustainable economic, cultural and social progress and comply with Swiss quality standards in the field of education and research (swissuniversities, 2015a). Not only is the participation of Horizon 2020 needed for UAS to get access to networks and financial support, but also to be part of agenda setting and keeping a state-of-the-art profile.

Figure 2 shows that Swiss UAS participated in 171 projects within FP7. Additionally, 18 coordinations and a total contribution of CHF 80.5 million were noted.

Type of institution	Number of participations	%	Of which coordinations	%	Committed contributions (CHF m)	%
Universities of applied sciences	171	4.0%	18	1.9%	80.5	3.2%

Source: SERI, 2016b

Figure 2: Number of Swiss UAS participations, coordination and amount of contributions committed under the 7th European Research Framework Programme

Within Horizon 2020, 17 participations from Swiss Universities of Applied Sciences are listed per July 2015 (see Figure 3 hereafter):

Type of institution	Number of participations	%	Of which coordinations	%	Committed contribution (CHF m)	%
FHNW	5	1.6%	0	0.0%	2.5	1.4%
FHO	1	0.3%	0	0.0%	0.7	0.4%
SUPSI	6	1.9%	0	0.0%	3.1	1.8%
ZHAW	2	0.6%	0	0.0%	0.5	0.3%
HES-SO	3	0.9%	0	0.0%	1.6	0.9%
Total universities of applied sciences	17	5.3%	0	0.0%	8.5	4.9%

Source: SERI, 2016b

Figure 3: Number of Swiss UAS participation, coordination and amount of contributions under the 8th European Research Framework Programme (Horizon 2020)

According to the latest, but not yet published, update by SERI on the participation of UAS in Horizon 2020 as per June 2016, the total number of projects increased to a total amount of 32 projects. For further comparisons and overviews, the actual number of 32 projects will be used (Details follow in chapter 4.2 Overview of UAS most relevant opportunities in Horizon 2020). The latest and up-to-date details of Swiss UAS participations can be accessed via the [EU Open Data Portal of Cordis](#), the EC's portal with information on all EU-funded research projects.

3.4 European UAS participation in Horizon 2020

When comparing the general participation from FP7 and Horizon 2020 the EC states some changes in the first Horizon 2020 monitoring [report](#). One of the main elements highlighted is the issue of oversubscription and a decrease of the average success rate from 19% in FP7 to 13.9% in Horizon 2020 is noted (European Commission, 2016b). This means it is getting more difficult to get European funding in general while not even taking into account the background of the applicants. In the study 'Assessment of Horizon 2020 Programme' by the Budgetary Control of the Directorate-General for internal policies, the authors assess among other things the fact that the proposal procedures for Horizon 2020 are simplified compared to FP7 and might have an impact of the new number of proposals and therefore results in a lower success rate. 'Lost' projects mean in the end lost opportunities to support and strengthen innovation and ultimately a loss to economic growth (European Parliament, 2016). This is general information which however does not state anything specifically on the participation of the UAS.

As seen in section 3.2, the concept of UAS is available across the whole of Europe. Therefore the idea of participating in European frameworks with own projects as coordinator or regular participant with applied research background makes sense. To get a broader overview of how successful other countries are, data were collected from several sources (see Annex 2 UAS participation in European framework programmes). Together with Germany (44 projects), Switzerland is with 32 projects as of June 2016, one of the most successful countries when it comes to UAS participating in Horizon 2020, followed by Ireland with 16 projects. A special remark needs to be made about the Czech Republic where the high number of 52 projects is explained by the fact that the biggest universities of the country are included with their applied sciences oriented faculties and programmes. Therefore the Czech Republic will not be considered in the comparison.

Country	Projects in H2020	Remarks
Austria	3	FP7: 53 proposals, success rate 16,5%
Belgium F part	-	1 Project within FP7
Belgium NL part	2	Almost all members have been active in applying for projects but so far no success except for one UAS
Czech Republic	52	2 biggest universities also have some very technical and applied sciences oriented faculties and programmes. ²
Denmark	-	2-3 Projects in FP7
Estonia	-	5 Estonian UAS are participating in the preparation phase to enter Horizon 2020, 1 project in FP7
Finland	9	Status as of October 2015
Germany	44	Status as of February 2016
Ireland	16	
Lithuania	-	
Netherlands	6	
Norway	8	Some Universities also have very technical and applied sciences oriented faculties and programmes
Portugal	-	No data compiled
Spain	-	No data compiled
Switzerland	32	Status as of June 2016

Figure 3: European UAS participation in Horizon 2020

Chapter three showed the organisation of UAS in Switzerland and the support structure for applying for European research and innovation funding. Differences exist in the definition of the term 'UAS' across Europe and there is no official definition by the OECD, but enough common ground to have an idea of what UAS stands for. After a strong participation in FP7 with 171 project participations (e.g. **Virtual Factory Framework** by SUPSI) the Swiss UAS are also coordinators in 18 projects. Finally, Swiss UAS participate in 32 projects within Horizon 2020 (e.g. **XoSoft** by ZHAW) as of June 2016, which shows that Switzerland is one of the leading countries in terms of UAS participation. Given the small number of institutions this is even more remarkable.

² Czech HE system is different from many others in Europe. The distinction between „Polytechniques“ and other Universities is not that obvious, as it is the case for instance in France or in Switzerland.

4 Existing opportunities for UAS in Horizon 2020

The fourth chapter gives an overview of what Horizon 2020 is, how it works and what it concretely offers to UAS in Switzerland and Europe.

4.1 Explaining Horizon 2020

Horizon 2020, with a duration of seven years (2014 to 2020), is the biggest EU research and innovation funding programme so far with a total budget of nearly €80 billion. Horizon 2020 consists of the three pillars Excellent Science, Industrial Leadership and Societal Challenges. The programme is built up as follows: The Horizon 2020 Specific Programme, which covers in total three years, sets out the general focus areas on which the two-year work programmes (WP) sets out funding opportunities³ (see figure 3 below). The WPs are developed by the European Commission with the help of 19 Advisory Groups of Horizon 2020 representing the industry, research, science communities and the wider society, but also with help of public private partnerships and the Horizon 2020 Programme Committees.

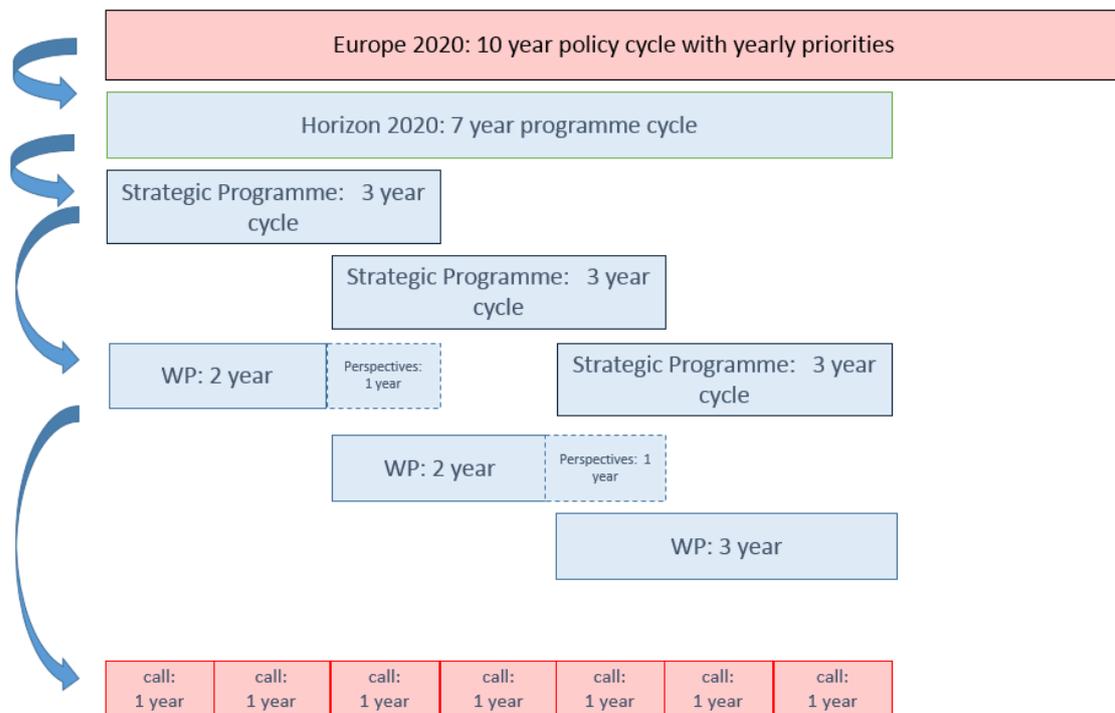


Figure 4: Horizon 2020 structure

³ The last work programme will cover three years, namely 2018-2020.

4.2 Overview of UAS most relevant opportunities in Horizon 2020

The various call topic descriptions usually mention a Technology readiness level (TRL) estimating the technology maturity of critical technology elements. It basically represents an innovation and research scale, based on the assumption that the innovation process is linear. The European Commission uses the following definitions (European Commission, 2014):

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL 4 – technology validated in lab
- TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 – system prototype demonstration in operational environment
- TRL 8 – system complete and qualified
- TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

Source: European Commission, 2014

Figure 5: Technology readiness levels (TRL)

Level one within the fundamental research is usually covered by traditional basic research focused universities, whereas the UAS focus on applied research and a project starting level between two and five.

When looking at the different instruments and their general TRL indications (available from the Work Programmes 2016-2017) within Horizon 2020 the following scale levels are appearing (see brackets):

Excellent Science - Pillar 1	Industrial Leadership - Pillar 2	Societal Challenges - Pillar 3
European Research Council (ERC) (No TRL indication)	Leadership in Enabling and Industrial Technologies (LEIT) - Space - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology - Information and Communication Technologies (TRL 3-7)	Health, Demographic Change and Wellbeing (No TRL indication) ⁴
Future and Emerging Technologies (FET) (TRL 1-5)		Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy (TRL 5-8)
Marie Skłodowska-Curie actions (MSCA) (No TRL indication)		Secure, Clean and Efficient Energy (TRL 5-8)
Research Infrastructure, including e-Infrastructures (TRL 1-8)		Smart, Green and Integrated Transport (TRL 1-6)
	Access to risk finance (TRL 7-8)	Climate Action, Environment, Resource Efficiency and Raw Materials (TRL 4-8)
	Innovation in SMEs (min. TRL 6)	Europe in a changing world – Inclusive, innovative and reflective societies (No TRL indication)
		Secure societies – Protecting freedom and security of Europe and its citizens (TRL 4-5)
Spreading Excellence and Widening Participation (No TRL indication)		
Science with and for Society (No TRL indication) ⁵		
European Institute of Innovation and Technology (EIT) (TRL 4-9)		
Joint Research Centre (JRC) (No TRL indication)		
Euratom (TRL 1-3)		

Table 1: Horizon 2020 pillars

Excellent Science is especially interesting for traditional research universities although the Marie Skłodowska-Curie Actions are also suited to the needs of applied focused universities. For the UAS, the important pillars are mainly 'Industrial Leadership' and 'Societal Challenges'. It appears that especially pillar two and three are ideal for UAS based on their TRL indication in the mid-levels and attracting applied research to further develop products and solutions to a more advanced level. The instruments without any TRL indication are not necessarily focusing on traditional research only, although this is mostly the case. What is relevant in any case is the call description and the requirements for the specific projects and if it is established to attract traditional research institutions or also focusing on applied research. The existing framework of participation in Horizon 2020 is therefore very suitable for UAS with its applied research, innovation focus and ability to address and solve 'real world' problems quickly.

⁴ TRLs are not commonly used in the health sector (European Commission, 2015b)

⁵ Practices of using TRLs are limited, considering that TRLs are socio-technical, i.e. include economic and social (and sometimes political) readiness (European Commission, 2016c)

“Horizon 2020 is tailor-made for UAS since the fostering of projects to develop ideas with partners from economy and the public authorities are in the foreground”

Rector Jean-Marc Piveteau, ZHAW President's Office (ZHAW, 2016).

When looking at the different instruments and actions Horizon 2020 has on offer, Horizon 2020 tries to accommodate applied research and innovation to the best extent possible. Besides the innovation actions, also innovation prizes and funding options for pre-commercial public procurement (PCP) were announced to facilitate innovation, as well as the SME Instrument (feasibility studies, market analysis, standardization, demonstrators, prototypes and pilot plants), Access to Risk Finance instruments and Fast Track to Innovation (FTI)⁶.

According to a SME Euresearch Contact Point, usually there is no specific «TRL-Policy». UAS are generally more interested in higher (more developed and innovative) levels. By trend, the collaboration projects in pillar two and three are more worthwhile than pillar one but not exclusively. Also Marie Skłodowska-Curie Actions can offer potential, whereas the areas ERC and FET are more difficult for UAS due to their low TRL levels. Experience shows that strong and sophisticated consortia have better chances in attracting projects. Collaboration projects are usually more attractive than calls in the ERC and FET programmes.

It seems that the TRL scale and indicators are not always relevant when it comes to applying for projects and choosing partners; the degree of brand awareness of an institution and its skills are in the end relevant when it comes to teaming up with other partners. Also relationships and networking access to coordinators and past success stories are what counts as primary ground for attracting new projects.

⁶ Please note however that given Switzerland's current status, in many of these instruments Switzerland is excluded.

Hereafter an overview is presented of the current projects of Swiss UAS and their programme affiliation (as per June 2016).

PROGRAMME	ZFH	FHNW	BFH	FHO	SUPSI	HES-SO	Total UAS
MSCA		1					1
Pillar 1		1					1
ICT	3	2			1	1	7
Adv. Manufacturing	3				5		8
Ind. Lead. Crosst.					2		2
Space		1					1
Pillar 2	6	3			8	1	18
Food		1					1
Energy				1	1	3	5
Environment					1		1
Security			1		1		2
Society	1			1			2
Transport		1			1		2
Pillar 3	1	2	1	2	4	3	13
Total	7	6	1	2	12	4	32

Source: [Open Data Portal](#)

Excellent Science: 1
 Industrial Leadership: 18
 Societal Challenges: 13

Table 2: Opportunities of Swiss UAS in Horizon 2020

According to the detailed programme data provided by the Open Data Portal as per June 2016 one can see that the vast majority of projects are within pillar two (Industrial Leadership) and three (Societal Challenges) and there is only one project present in Excellent Science.

This fourth chapter showed how Horizon 2020 works and explained the concept of Technology Readiness Level (TRL). In general UAS focus on applied research and projects starting at TRL level between two and five. UAS therefore experience the most relevant opportunities within pillar two and three of Horizon 2020 due to a higher TRL orientation than in pillar one. Experience shows that strong consortia have better chances in attracting projects. Relationships and networking, access to coordinators and past success stories are what counts as primary ground for attracting new projects.

5 Gaps, barriers and challenges

In the previous chapters, this report elaborated on Swiss and European UAS as well as on the opportunities offered by Horizon 2020. On the basis of these chapters and interviews conducted to obtain hands-on information, gaps were identified that hamper the UAS from successful participation in Horizon 2020. This gap analysis tackles the European, national and institutional level.

5.1 European level

UAS would be ideal candidates to tackle the European objective to create economic growth and jobs, because they are connectors between universities, citizens, companies – especially SMEs – and public institutions. The gap on European level is not Horizon 2020 itself, but rather the fact that **there is no specific instrument to stimulate UAS participation**. It seems that there is an insufficiently used reserve of impact power and a stronger involvement and presence of UAS within the European Framework Programme is needed. When it comes to the participation in Horizon 2020 projects, interviewees stated that the access and evaluation criteria are not transparent enough. The whole application and submitting process is not only very time consuming but it is most of all perceived as like playing the lottery. Often it is unclear for the researchers what is required to apply in the first place, but also within a call uncertainties arise where questions remain open; contact persons are unclear and finding information is difficult for non-experts. The low success rate of Horizon 2020 programmes and instruments and the lack of transparency of evaluation outcomes are problematic for UAS applicants as it prevents them from fully understanding where they would have to improve in order to be successful. It is therefore even more difficult to get into projects as a newcomer, as good information and suitable instruments are difficult to find (jungle of information). The knowledge of how to apply to calls is not available compared to big competitors who are already used to the process.

5.2 National / Cantonal level

5.2.1 Awareness & perception of the role of UAS

Currently, there is no official definition of UAS. The perception is that UAS focus more on teaching and less on research which might make it hard for UAS to break stigmas down. Although the double profile of UAS for teaching and practice oriented research should be kept and promoted further, gaps still exist between UAS and academic universities. This is seen in project funding, competences, networks and development of track records. It seems that UAS are not fully levelling with the traditional universities, neither in Switzerland nor in Europe. But applied research in Switzerland only fares well with collaboration with external partners especially because of the UAS short track record and they need more support to promote their excellent credits and skills. There is less bias on European level where the only differentiation is applied and basic research.

5.2.1 Autonomy

The European University Association (EUA) declares that autonomy is seen as strength and should be as strong/high as possible. The report 'University Autonomy in Europe II: EUA's Autonomy Scorecard' mentions that it has been revealed that, although the institutional freedom generally increased, a number of systems still grant too little autonomy and thereby limit the performance. That autonomy does not mean the absence of regulations is evident. Also it needs to differ framework conditions and its areas of organisational, financial, academic

and staffing autonomy (EUA, 2011). The autonomy issue might not be shared by all Swiss UAS, nevertheless needs to be pointed out. UAS with different locations and dependencies in different cantons experience some difficulties. An institution with different leaderships, recruiting competencies, opinions on positioning and funding models vary from canton to canton and its locations. Concretely said, this might be problematic when a canton council is deciding on whom to recruit for a position and this procedure is not being done by the institution who actually has the competencies to judge the suitability. Another example might be different strategies from canton to canton as the institution has no autonomy in deciding such strategic questions itself.

5.2.2 National funding instruments

Whereas the Swiss National Science Foundation (SNSF) focuses on funding basic research, the Commission for Technology and Innovation (CTI) is interested in fostering applied research. Grants are always being paid to the research institutions and never to companies which collaborate on the research project. Researchers and staff at Swiss UAS criticise that the national funding is done with small(er) amounts but perceived as easier than European funding. But funding amounts within European projects are higher and the power of attention bigger. Right now, there are concerns over if enough funding on national level is available, in case it gets harder to obtain funding from Horizon 2020. If national funding opportunities are easier to attract, the advantages of Horizon 2020 might be more difficult to promote.

5.2.3 Limited funding of applied research

Whereas the Federation funds the research of its Federal Institutes of Technology and other research institutes outside the traditional university area (ETH Board), the cantons are the main funders of UAS supported by the Commission of Technology and Innovation (CTI) who is the primary sponsor financing applied research (SERI, 2009). Public funding is less available for UAS than for traditional universities, where public funding is available for research and teaching. UAS applied research is only financed with small contributions; they do though get federal funds for their teaching activity. All activities besides teaching has to be financed elsewhere. Applied research is therefore mostly financed by collaborations with the industry and business partners. According to the report "Hochschulen und Forschung in der Schweiz", applied research and development as well as integration of knowledge in marketable innovation is the main domain of the private sector and UAS. The costs of research affect more than 20% of the operational costs of UAS (SERI, 2015). Concretely, every professor hour needs to be associated with a cost unit, meaning that every hour of teaching and research needs to be associated and the acquisition part is not covered. It is therefore a cost sensitive question whether or not to delegate applied research to professors since each hour needs to be cross-financed resp. be extra paid from the UAS's own pocket. If a research project is forecasted but not accepted and funds credited the professors hours need to be paid from another source, which results in a defensive attitude when it comes to research applications. Also projects by the SNSF are not allowed to be booked with research hours by default as stated in their statutes. This means that the invested research hours need to be financed by another source. UAS don't have the resources to concentrate fully on researching (in contrast to the academic universities) as they simply do not have the financial settings to fund it. Less funding means less research activities and therefore less possibilities to participate in European programmes like Horizon 2020. With more support and funding for UAS researchers, applied research would be promoted and incentives created to motivate UAS professors to actually do applied research in their field and consequently apply for European programmes such as Horizon 2020.

The report from the Center for Higher Education Policy Studies (CHEPS) points out that particularly a stable core funding for research activities is missing, which forces them to rely on

short-term project funds. But to be able to build up a proper research capacity and infrastructure, a stable core funding is needed, also in view of the ability to recruit qualified research staff, which is difficult with unstable funds. Besides, projects on a longer-term basis gives the freedom to better plan research activities (CHEPS, 2009). The SNSF plans a special programme called „Bridge“ with the upcoming finance programme in cooperation with CTI (Commission for Technology and Innovation) to focus on transfer of research results and its application for Universities of Applied Sciences (SERI, 2016d). The Bridge programme aims to better exploit the economic and societal potential of scientific research by promoting the transfer from scientific knowledge to innovation. The question of the funding and responsible administration remains open: the budget of 70 million Swiss Francs is not yet available or confirmed as the details need to be approved by the chambers of the Swiss parliament.

5.3 Institutional level

5.3.1 Lack of incentive to engage internationally

The lack of incentive to engage internationally was mainly detected at one UAS institution, although it is expected that the same might apply to other schools or that the same mind-set exists for various researchers from other UAS. For instance, one division receives many orders and requests for project collaboration from within the region and therefore does not 'need' international projects within Horizon 2020. The fact that certain UAS are not interested in engaging in European projects and to interact with other players is not a Swiss issue only. Dutch UAS also have major differences in European engagement. There are some institutions demanding more influence from the umbrella organisation of their country to focus clearly on internationalisation and push their members into this direction too. To be able to fully perceive the necessity of participation a general awareness of the possibilities needs to be possible. EURASHE points out that UAS still do not have the needed awareness that they can participate in European funding programmes and should be more informed about the processes and practicalities, and motivated to join a project.

5.3.2 Lack of administrative resources

The question was raised if the support provided by Euresearch is enough or if improvement and additional resources are needed. Although Euresearch assists with the screening of open calls and advises on optimising the matching between projects/research areas and available calls, the application has to be done by the UAS itself. SERI confirms that UAS have less administrative resources to professionally hand in call applications than academic universities. The preparation and implementation of EU projects is namely highly demanding and not enough staff and resources are available. Although assistants are being hired for doing the actual projects, the human resource management is far away from being sustainable, as the staff is only employed on a limited basis and leave the institution after completion of the project. Currently, the whole process of applying for European funding follows an acquisition-model, meaning that a researcher has to do everything alone at first, and gets support and administrative resources only after the first successes. Some institutions started to hire staff for the only purpose to attract funding money and that it is crucial to work together with experts who have a successful experience in applying to calls of framework programmes, it increases chances extensively. It is visible that for those who have additional administrative resources the success rate is higher.

5.3.3 Lack of international strategy, common roadmap and focus points

The fact that swissuniversities should remain a political spokesperson (representing UAS on political level as national rector's conference) on national and international level for Swiss UAS is not put into question. The need for UAS to establish a positioning strategy is obvious too, only the question of how to do so remains. SUPSI as the leading player of the Swiss UAS in Horizon 2020 stands out by having the double number of projects to other UAS players (status as of May 2016). It shows clearly that having an international strategy is indispensable when it comes to being successful. The institution plans its projects and agenda setting analogue to the focus of each framework programme to stay on the cutting edge and attract more funding money. Additionally, strong efforts are being made in the area of quality assurance with focus on a small number of fields and establish an expert knowledge basis. The situation is different in other parts of Switzerland. More strategic attempts and approaches are needed, but most of all a clear focus on a small number of areas to broaden the expertise. Profiling and setting of strategic focus points is crucial according to an examination amongst German UAS, especially when it concerns winning third-party funds, highly qualified staff and students (CHE Centrum für Hochschulentwicklung, 2016). The risk on missing out on opportunities by not being known outside of the own region and/or nation means in the end to miss out on potential clients and expansion of the own institution.

5.3.4 Lack of network, contacts and lobbying knowledge

Information and insights on how to lobby and network for the institution's own causes are needed. The issue starts with basic questions, such as if direct access to the European Commission is possible for UAS or whom to approach for which consultation. Networking amongst the UAS in Switzerland could already help. Working closely together predicts an improvement of quality and success and more importantly the right framework for a strong international presence is needed rather than an organisation representing the UAS interests. A concerning point is that applied research is very in demand but each player has its own show and acts alone. There is no association or umbrella organisation as it exists elsewhere (e.g. UAS7 in Germany or UAS10 in The Netherlands which will be launched in July 2016) that can provide help with contacts, networking as well as working and research groups. It looks like the system in Switzerland works from the single institutions to networks (bottom-up) instead of from network to the institutions (top-down). Doors are being opened to other projects, partners and networks when mutual projects are being tackled together. The know-how from different angles needs to be collected to multiply solutions aspects. As the Swiss UAS are small education and research institutions, they need to work together and combine the multi-disciplines. A lot of efforts are being done by swissuniversities especially on national political level. But it seems that it has only little influence when it comes to international collaboration. In order to be ready for the following framework programme after Horizon 2020, a collaboration needs to be organised as well as mutual communication and the positioning of contact persons in Brussels to establish projects on a high level. Having connections and contacts are evidently needed; professors might have excellent competencies but no adequate network in the academic area to promote it and work together with others.

Besides EUA, which represents mostly traditional academic universities, there has until recently been no network available for the UAS specifically. This has changed with the creation of [UAS4EUROPE](#), which represents the needs of UAS and is a joint initiative of EURASHE, UASnet, swissuniversities, Hochschule Bayern e.V. (supported by the Bavarian Research Alliance) and the Austrian FHK (see Annex 3 and 4). The joint initiative aims not only at strengthening the Swiss UAS, but all UAS in Europe. The goal is to promote and develop new ways of improving the applied research activities and positioning of UAS in Europe.

In this fifth chapter, we took a look at the gaps, barriers and challenges for UAS to fully realise their institutional strategy within the given opportunities of Horizon 2020. The obstacles are divided in three different layers with a European, a national and an institutional level. Currently, a specific instrument to stimulate UAS participation within Horizon 2020 is lacking, thereby raising their participation. On a national and/or cantonal level different levels of autonomy in terms of funding, hiring procedures of research staff and leadership could be detected, as different cantons are financing the seven public UAS. Moreover it was stated on several occasions that the awareness and perception of the role in society and politics could be improved to increase visibility of the UAS. The main gaps were discovered on institutional level itself, where it needs to be pointed out that public UAS in Switzerland have different levels and starting points to realise their international strategy, if available. Lack of incentives to engage internationally, administrative resources, international strategy and network as well as lobbying knowledge represent the barriers on institutional level.

6 Conclusions and recommendations for stronger UAS

The main conclusion to draw is that, although there are no specific funding instruments for UAS within Horizon 2020, the programme offers various other suitable options for applied focused research that are open to UAS and their research activity, mainly within pillar two (Industrial Leadership) and three (Societal Challenges). Horizon 2020 is very competitive and represents an excellent way to collaborate outside Switzerland in the applied research area.

The European framework not only provides the UAS with funding opportunities via their instrument calls, but also importantly provide a platform of networking, collaboration and agenda-setting. The funding opportunities of Horizon 2020 generally suit the interests of the Swiss UAS, as they have a strong focus on collaborations with the industry and SMEs and conduct innovative applied research in their field on regional, national but also international level through cooperation with partners. Especially the instruments from pillar two and three allow the most participations. The instruments within those areas fit the strengths and the strategic focus of the Swiss UAS the most as they by default request a high TRL starting point. Nevertheless, UAS still have a lot of efforts to do to uncover their big 'sleeping' potential. The report therefore puts forward the following recommendations:

- UAS need to have a certain level of autonomy, meaning that they can decide within the board how to invest their budget, how to position themselves and who to hire.
- In order for UAS to have a strong and successful European presence a goal should first be set by defining a concrete strategy or at least a vision linked to EU opportunities.
- In addition to Euresearch, UAS could hire dedicated in-house staff mainly focusing on international collaboration, tracking calls for whole institutions or single departments, working closely with researchers and becoming an expert in writing applications.
- UAS should develop and establish networking & lobbying activities.
- A different funding solution would help to increase the activity in applied research and create a motivation instrument to be more active in the field of research.

In sum, Horizon 2020 seems to suit the needs of the UAS, however on an institutional level, the biggest challenges lay ahead. Some main recommendations on how to tackle these challenges are presented in the following sections. However, in order to identify specific and detailed actions on single institution level, a **follow-up research** is highly recommended.

6.1 Autonomy of each UAS

Bottom line, it is absolutely needed that an education and research institution has a certain level of autonomy, meaning that it can decide within the board how to invest their budget, how to position themselves and who to hire. This does not mean of course that there is no reporting needed to the funding cantons on a regular (e.g. yearly) basis to explain and also defend its decisions and results. The cantons funding the UAS would therefore have a controlling rather than a deciding function. It is recommended that UAS have autonomy in the areas of cash-flow budget, recruiting of staff, etc. Autonomy is crucial for a UAS as the leadership needs to agree on international orientation, participation within European framework programmes and common roadmap to position the institution successfully.

6.2 Public funding for applied research

The problem is not the 'lack of public funding', but rather the financing structure of the UAS. Basic financial funding for research allows better planning of professor hours and increases research activity due to lack resp. reduction of need to cross-finance unsuccessful research projects applications. The idea is to give more flexibility to the UAS in using their money in terms of basic funding to finance research activities such as requests' preparation, publication, etc. A different funding solution would help to increase the activity in applied research and create a motivation instrument for professors and researchers to be more active in the field of research.

6.3 International strategy and roadmap for each UAS

To have a strong and successful European presence a concrete strategy or at least a vision linked to EU opportunities should be set. The goal should be to have an agenda with answers to questions in the area of research, technology and innovation policies, such as: what goal do we have in our applied research area, with which partners are we working together, which funds (specifically and in broader terms) are needed and how are we representing our roadmap on European level? What is our added value and contribution selling point, what can we ask from partners and collaboration institutions? A national agenda as basis to start with own plans is helpful, which usually occurs in form of thematic support programmes to co-finance content orientation, knowledge and access to important actors. Agenda setting might be even more important than planning of a project because it answers the bigger questions and topics of the various actor roles, their missions and resources. The strategy and roadmap can be established and adapted with support from **SwissCore** for a stronger international presence. Based on the programme a strategic orientation can be set and supported by having international post-docs on board for international projects. Depending on the national or international focus, separate portfolio strategies for the various departments are possible according to their initial position. In a second step the profiling of an institution starts; alone, together with other institutions or partners or as an informal group. In the Netherlands incentives were created by the government to improve profiling by focusing on expertise on regional level (e.g. the northern part with lots of senior citizen is specialised in social solutions for the elderly, Amsterdam area is in the art field, others fixed on energy, etc.). In order to get a strong international presence a clear focus on innovation and applied research is needed. By opening up and looking actively for international access, more information flow and influence as well as success in future framework programmes can be expected.

6.4 Administrative support for European projects

One of the most urgent necessities seem to be that adequate resources are available to all UAS. The goal is to respond to calls of framework programmes and to participate in international working groups, collaborate with other institutions and maintain contact with lobbying networks. The idea is to have dedicated staff mainly focusing on international collaboration, tracking calls for whole institutions or single departments, working closely with researchers and becoming an expert of writing applications. The concept or at least the thought of dedicated staff working close with research inspired not only interview partners from Swiss UAS but also European networks and institutions which have been interviewed. Also creating application models might help to save time for recurring applications, where at least parts can be taken over. A level of practice will be established automatically with more experience. Moreover, the more experience you get within Horizon 2020, the more proactive you can be as an institution to design and shape the programme. This can contribute to improving the programme in your favor. The upcoming interim evaluation of Horizon 2020 is a good opportunity to do so.

6.5 Establish networking & lobbying activities

First of all, good and valuable contacts need to be established in working and research groups on European level in Brussels on institutional and individual level. This means that what is needed first is a strong track record before an institution can promote its skills within their network, towards their contacts and start doing lobbying. In order to become stronger within a country, region or related research fields, one possible option is to form alliances with others in order to synchronise positions on work programmes and represent them unified. Usually those alliances are created on an informal basis but are also available at bilateral alliances between other countries. Approaching project coordinators might allow access to projects, a certain level of proactivity on the side of the researcher is provided. Many researchers have wide networks to represent the interests of their research institutions and contribute to the information and knowledge flow to Governing Boards, Advisory Boards, and Executive Boards and built a solid basis to agree on positions across networks. To be a successful researcher within the European research landscape, connections are important: to researchers, education institutions and industry. A good way to access networks and knowledge as a researcher is to become an evaluator in Horizon 2020.

Moreover lobbying activity is crucial to stay in contact with your network, get access to projects and promote the own strengths and successes. One option is to join networks with strong consortia, also to get more contacts within the industry. Another is to register as evaluator, as the increased focus of innovation demands more experts connecting industry and the applied research. Besides an international collaboration across borders, swissuniversities expressed the wish for further steps to collaborate with traditional universities in Switzerland to represent a unified voice of the Swiss higher education institutes. This would for example mean to have a permanent representation e.g. in Brussels to promote the strengths and achievements as well as lobby for the interests of the Swiss UAS. The goal should be to always find the best solution and transfer it into the own region or country. What might work in Switzerland might also be interesting for other regions and countries. Which is why it is crucial to be in contact with others. Sharing and exchanging knowledge and industry problems is important to learn from others who are or might be more experienced or share the same challenge and obstacles.

It is therefore crucial that the leadership of the single UAS actively promote the services of Euresearch within their institution and create incentives for their researchers to establish a

stronger collaboration with Euresearch and other network and lobbying institutions. Events in Brussels, e.g. at Info days for Calls of Horizon 2020 or workshops or events organized by [SwissCore](#), can help to forge links with delegations, the European Commission, lobbying associations and other researchers. But mainly, it gives visibility to participating researchers or representatives of the UAS. Usually several institutions form an alliance and have a mutual representation in Brussels or elsewhere (e.g. [Eurotech](#), [White Rose](#) Universities, [Eucor](#)). This being said, it needs to be clearly stated that working with partners and being open to collaborations should be self-evident for all players aiming at broadening their network and strengthening their success rate.

Collaborations can already start in a small field, for example by working together more closely with other UAS players in Switzerland. This can be done by collaborations in same research fields, researcher exchanges, and by staying in touch with other rectorates to benefit from each other experiences. swissuniversities as rectors' conference of Swiss higher education institutions could certainly support the establishment of the necessary framework to broaden knowledge exchange. As for example this actual project where UAS can contribute and give their inputs on national basis and work with other players. Cooperation with other UAS in Switzerland are highly desirable. On a long-term basis, aiming at a project coordination role should be the goal after successfully being active as participant with the motto: 'first a partner, then a leader'. The recently launched joint initiative UAS4EUROPE can be the right network to have the voice of Swiss UAS heard and the strengths promoted. swissuniversities should stay involved and if possible aiming at a leading role to promote the outstanding presence of Swiss UAS across Europe.

The main conclusion to draw is that Horizon 2020 does offer various opportunities, however several issues exist mainly on institutional level. To tackle the identified bottlenecks the following recommendations were made: 1. UAS need to have a certain level of autonomy. 2. To have a strong and successful European presence a concrete strategy or at least a vision linked to EU opportunities should be set 3. UAS could hire dedicated in-house staff mainly focusing on international collaboration, tracking calls for whole institutions or single departments, working closely with researchers and becoming an expert in writing applications 4. Establish networking & lobbying activities 5. A different funding solution would help to increase the activity in applied research.

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Various sources and information platforms contributed to this project paper in different forms and can be found hereafter.

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Contributors to the study

The following experts from various partner institutions have contributed to this study with information provided in form of interviews (see date).

Institute/Organisation	Name	Position/Role	Date
Bavarian Research Alliance, BayFOR	Karin Lukas-Eder	BayFOR-Representative Brussels Office	25 February 2016
Berne University of Applied Sciences BFH	Peter Eigenmann	Head International Relations Office	26 February 2016
Commission for Technology and Innovation CTI	Françoise Dubois	Strategic Projects	16 February 2016
Danish EU Research Liaison Office, DANRO	Jakob Just Madsen	Head of the Danish EU Research Liaison Office	29 February 2016
European Association of Institutions in Higher Education Eurashe	Anna Toivonen	Policy Officer on RDI	03 March 2016
European Association of Research and Technology Organisations	Erwan Huon de Kermadec	Policy Officer	10 May 2016
European Liaison Office of the German Research Organisations KOWI	Mareike Schmitt	Advisor for Bioeconomy, Energy, Spreading Excellence and Widening Participation (Horizon 2020)	25 February 2016
European University Association EUA	Lidia Borrell-Damian	Director Research & Innovation	11 March 2016
European University Association EUA	Julian Bauer	Policy & Project Officer Resarch & Innovation	11 March 2016
Finnish Funding Agency for Innovation TEKES	Matti Hiltunen	Counsellor Research and Innovation	24 February 2016
Netherlands house for Education and Research, Neth-ER	Tim Buiting	Policy Advisor for Education and Research	24 February 2016
State Secretariat for Education, Research and Innovation SERI	Guido Miescher	Scientific Advisor at State Secretariat for	16 February 2016

		Education and Research	
swissuniversities	Maria Stergiou	International Relations	15 February 2016
swissuniversities	Anne Crausaz	Head of Division research and development	15 February 2016
swissuniversities	Andrea Aeberhard	Director of the Chamber of Universities of Applied Sciences	15 February 2016
The Netherlands Association of Universities of Applied Sciences, UASnet	Sara Hoogeveen	Policy Advisor at Vereniging Hogescholen / the Netherlands Association of Universities of Applied Sciences	25 February 2016
Technical University of Munich (TUM)	Maria-Valerie Schegk	Liaison Officer	07 February 2016
University of St Gallen	Petra Hertkorn-Betz	EU Research Advisor	17 June 2016
University of Applied Sciences and Arts of Southern Switzerland SUPSI	Riccardo Cappelletti	Scientific Officer Research and Innovation	17 February 2016
University of Applied Sciences and Arts of Southern Switzerland SUPSI	Giambattista Ravano	Director Research and Innovation	17 February 2016
University of Applied Sciences and Arts Western Switzerland HES-SO	Patrick Furrer	Vice Rector Research and Innovation	18 February 2016
University of Applied Sciences and Arts Western Switzerland HES-SO	Patrick Ruch	Group Lead at SIB Swiss Institute of Bioinformatics	03 May 2016
Zurich University of Applied Sciences ZHAW	Chahan Yeretian	Head of Analytics and Analytical Technologies	21 April 2016
Zurich University of Applied Sciences ZHAW	Christian Hinderling	Director of Institute of Chemistry and Biotechnology	19 February 2016
Zurich University of Applied Sciences ZHAW	Catherine Kroll	Head of Research, Technology Transfer Office	19 February 2016

Zurich University of Applied Sciences ZHAW	Hans Wernher van de Venn	Head of Institute of Mechatronic Systems	19 February 2016
Zurich University of Applied Sciences ZHAW	Richard Hüppi	EMBA Senior Research Associate	19 February 2016
Zurich University of Applied Sciences ZHAW	Hans-Rudolf Helfer	Project Manager Senior Research Associate	19 February 2016
Zurich University of Applied Sciences ZHAW	Niklaus Waldvogel	Euresearch Contact Point SME Research & Development Unit	19 February 2016
Zurich University of Applied Sciences ZHAW	Martin Jaekel	Head Research and Development Unit	19 February 2016
Zurich University of Applied Sciences ZHAW	Suzana Atanasoski	Euresearch Contact Point ZFH	27 April 2016

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Annex

Annex I: Third cycle

Country	Status	Contact
Austria	Only possible to offer PhD-programmes in cooperation with traditional universities. There are cooperative programmes and more loose collaborations with national and international universities. There is a huge discussion on the national level. This is probably one of our main political topics.	Heidi Esca-Scheuringer heidi.esca-scheuringer@fhk.ac.at
Belgium French Part	UAS are not allowed to deliver doctorates. But attempts to change this in a near future. For more legal info, see: http://www.gallilex.cfwb.be/document/pdf/39681_001.pdf , page 3, Article 4. - § 1er	Anne de Smedt desmedt.a@adisif.be
Belgium Flemish Part	Doctorates/PhDs are not possible in UASs. At this moment this is not a priority for the UAS.	Marc Van de Walle marc.vandewalle@vlhora.be
Czech Republic	Possible to study at all levels at UAS: Bachelor, Master, PhD, post doc...	Sona Jarosova jarosova@tc.cz
Denmark	We in Denmark do not have the possibility of doing a PhD or doctorate in our Universities of Applied Sciences	Christian Gundtoft cgu@fi.dk
Estonia	This topic has been under discussion, but at the moment it is only possible to get PhD degrees in academic universities	Anne Kraav anne@tktk.ee
Finland	PhD is always achieved in a traditional University only. No identification of national efforts to change this situation.	Matti Hiltunen matti.hiltunen@tekes.fi
Germany	Promotionsrecht in einzelnen Bundesländern (eigene oder in Kooperation mit einer Universität) ist vorhanden und der dazu nötige politische Wille ebenfalls	Mareike Schmitt (KOWI) Mareike.Schmitt@kowi.de
Ireland	Yes it is possible to obtain a PhD directly from an Irish iAd (iot). However there are very strict quality assurance constraints.	Tim Creedon creedontadhg@gmail.com
Lithuania	Bachelor only: Master and PhD can be achieved only in research universities	Nijcole Zinkeviciene nijole.zinkeviciene@go.kauko.lt
Spain	PhD possible at a University "Politécnica"	Lucía Sirera oficinaeuropea.crue.crup@crue.org
The Netherlands	UAS always has to do this through a traditional university. In particular the art schools are lobbying to get the PhD right, as they have no traditional university equivalent.	Sara Hoogeveen hoogeveen@vereniginghogescholen.nl

Annex II: UAS Participation in European Framework Programmes

Country	Projects in H2020	Remarks	Contact Person
Austria	3	FP7: 53 proposals, success rate 16,5%	Heidi Esca-Scheuringer
Belgium F part	-	1 Project within FP7	Anne De Smedt
Belgium NL part	2	Almost all member have been active in applying for projects but so far have not been successful except for one UAS	Marc Van de Walle
Czech Republic	52	2 biggest universities also have some very technical and applied sciences oriented faculties and programmes. ⁷	Sona Jarosova
Denmark	-	2-3 Projects in FP7	Jakob Just Madsen
Estonia	-	5 Estonian UAS are participating in the preparation phase to enter Horizon 2020, 1 project in FP7	Anne Kraav
Finland	9	Status as of October 2015	Matti Hiltunen
Germany	44	Status as of February 2016	René Siffrin
Ireland	16		Tim Creedon
Lithuania	-	none available	Nijolė Zinkevičienė
Netherlands	6	According to OpenDataPortal	Tim Buiting
Norway	8	Some Universities also have very technical and applied sciences oriented faculties and programmes	Elisabeth Wiker
Portugal	-	No data compiled	Lucía Sirera
Spain	-	No data compiled	Lucía Sirera
Switzerland	32	Status as of June 2016	Claude Vaucher

⁷ Czech HE system is different from many others in Europe. The distinction between „Polytechniques“ and other Universities is not that obvious, as it is the case for instance in France or in Switzerland.

Annex III: Invitation L(a)unch Event UAS4EUROPE 31 May 2016

Dear Nadine Kleger,

Europe needs more and stronger involvement of the Universities of Applied Sciences (UAS). This conclusion is unavoidable if we look at the European objectives in the area of innovation and growth. The European challenge-based research approach must generate more impact power. We believe there is an insufficiently used reserve of impact power resting with the UAS on European level.

Six organizations - [EURASHE](#), [UASnet](#), [swissuniversities](#), [the Bavarian Research Alliance](#), [Hochschule Bayern e.V.](#) and the [Austrian FHK](#) – therefore worked on a position paper for strengthening the role of Universities of Applied Sciences (UAS) throughout Europe firmly by means of the joint initiative called '**UAS4EUROPE**'. The paper focuses on the role of the UAS in the European research and innovation landscape in general and the position of the UAS in Horizon 2020 more specifically.

Therefore, we invite you to

a high level I(a)unch event of UAS4EUROPE on Tuesday 31 May from 11.30 until 14.30 hours

in the Representation of the European Region Tyrol, South-Tyrol, Trentino, Rue de Pascale 45-47, 1000 Brussels

to present and hand over the position paper to Director-General of the Directorate-General for Research and Innovation **Robert-Jan Smits**.

We cordially invite you to attend this highly exclusive event. Please find below a short version of the Agenda, soon you will receive more detailed information.

AGENDA

11.00 – 11.30 Registration

11.30 – 11.40 Welcome by **Richard Seeber** (Head of the Representation)

11.40 – 12.30 Welcome words by Representatives of the Organisation Networks (Presentation of the Speakers by Moderator **Karin Lukas-Eder**, Representative Brussels Office, Bavarian Research Alliance)

- EURASHE
- UASnet
- Hochschule Bayern e.V.
- Swissuniversities
- Association of Austrian Universities of Applied Sciences (FHK)

12.30 – 12.45 Presentation Position Paper

12.45 – 13.00 Handover of the Position Paper to **Robert-Jan Smits** (Director-General of DG RTD)

13.00 – 13.15 Speech by **Robert-Jan Smits**

13.15 – 13.20 Closing remarks by moderator

13.20 – 14.30 Walking Lunch

We would highly appreciate your attendance to the event.

Please confirm your attendance by sending an email to anna.toivonen@eurashe.eu by **18 May 2016**.

Yours sincerely,

The Organising Committee:

Karin Lukas-Eder/Anita Schneider (BayFOR), Anna Toivonen (EURASHE), Sara Hoogeveen (UASnet), Charlotte Geerdink/Nadine Kleger (SwissCore)

Annex IV: L(a)unch Event UAS4EUROPE 31 May 2016

Apart from the above mentioned thematic workshop, also a L(a)unch event of UAS4EUROPE took place on 31 May 2016 in Brussels (see Annex 3: Invitation L(a)unch Event UAS4EUROPE). The five organisations - EURASHE, UASnet, swissuniversities, Hochschule Bayern e.V. (supported by the Bavarian Research Alliance) and the Austrian FHK resp. their joint initiative called 'UAS4EUROPE' invited several partners and European institutions to a highly exclusive event. The network believes that 'Europe needs more and stronger involvement of the Universities of Applied Sciences (UAS). This conclusion is unavoidable if we look at the European objectives in the area of innovation and growth. The European challenge-based research approach must generate more impact power. We believe there is an insufficiently used reserve of impact power resting with the UAS on European level. Increasing the impact of applied research and innovation is the way forward to enhance Europe's competitiveness and ability to create more growth and jobs. European Universities of Applied Sciences play an important regional role in delivering applied research and innovation on the one hand and on the other hand they act as an important link between SMEs and industry, traditional universities, societal organizations and VET and other educational institutions in the region'. The goal of the meeting was the presentation and hand over of the initiatives position paper for strengthening the role of Universities of Applied Sciences in Europe to Director-General of the Directorate-General for Research and Innovation Robert-Jan Smits.

After inputs from all founding partners and videos from actual and past students, an [animation](#) followed, presenting the position paper and the need of involvement of the UAS.

The joint [position paper](#) shows the five roles of the UAS and their value to Europe:

1. As regional connectors: experts in having the right connections and constant cooperation in the region, from traditional universities, SMEs, industry, civil society and local and regional authorities. The UAS are at the core of regional development and in constant contact with all the stakeholders. They can respond quickly to the regional and market needs.
2. As international key players: collaboration with people across borders: from all over Europe and from around the world. This supplies the UAS with a culture of openness and allows UAS to connect with a broad spectrum of contacts and networks. A genuine culture of sharing information and knowledge adds to the success of delivering projects with societal impact.
3. As competent project leaders and evaluators for European programs: The European UAS are already leading in different kinds of multidisciplinary projects. As research actors they have the competence and capacity to lead more European projects. The UAS applied researchers have unique skills sets, which can contribute to and complement the traditional university and industry researchers' skills as evaluators of for example H2020 projects.
4. As consulting bodies: being part of European and national level discussions, advisory boards and decision-making on calls in relevant fields of research and innovation.
5. As contributors to European entrepreneurship: The European UAS are the key entrepreneur educators in their regions. In this way they contribute to European growth and to more jobs. The working life skills the UAS project work offers to their students strongly enhance employability, professional innovation and trendsetting (UAS4EUROPE, 2016a).

UAS4EUROPE wants to cooperate with the European Commission for applied research and innovation. A first step UAS4EUROPE took is to hand in a contribution to the Call for ideas for the European Innovation Council.

Luciana Vaccaro, the Rector of the UAS Western Switzerland (HES-SO) and speaking on behalf of swissuniversities, gave a presentation on the UAS as competent project leaders and evaluators of European programmes from a Swiss perspective. Swiss UAS particularly have a role to play in amongst others increasing companies' innovative strength, in providing the employment market with the experts it needs, lay the foundation for sustainable economic, cultural and social progress. Also Jean-Marc Piveteau, Rector of the Zurich Universities of Applied Sciences (ZHAW), attended the event on behalf of swissuniversities.

Smits was happy to see a coordinated role of the UAS in Europe: "It's great to see that the universities of applied sciences are increasingly claiming their role to help regions, Member States and the EU realise their ambitions in the field of science and innovation. With their close relations with SMEs, knowledge and experience to bring research results to the market and international networks, the universities of applied science have much to offer. The creation of UAS4Europe will definitely facilitate and enhance the cooperation and contacts with the European Commission".

The launch of UAS4EUROPE was well received in Brussels. Smits is of the opinion that he sees a great future for the European UAS and he stated that UAS4EUROPE can count on him "as one of the network's biggest champions". The network will be chaired on a rotating basis. The first chairmanship (duration to be defined) will be done by EURASHE. Two concrete activities are already on the agenda, namely:

- collect input for the mid-term review of Horizon 2020;
- organise a conference for UAS researchers in Brussels in March 2017.

swissuniversities, as one of the founding member of UAS4EUROPE, has a great opportunity to make the voices of the Swiss UAS heard in Europe via UAS4EUROPE. Having and keeping close links within this network is of importance for swissuniversities' visibility in European research and innovation policy and programmes. The opportunity also exists to take over the rotating chairmanship from EURASHE, which gives swissuniversities also an opportunity to be more engaged in agenda setting for the activities carried out by UAS4EUROPE. UAS4EUROPE will discuss a joint RDI agenda, future possibilities for cooperation, joint activities to promote applied research and policy actions and advice. It will meet at least once a year to discuss the current UAS-related issues on the platform's agenda. Taking over the chairmanship would be timely given the fact that the mid-term review of Horizon 2020 takes place, the European Innovation Council will take form and also the first contours of the successor of Horizon 2020 will be shaped.

Annex V: Invitation UAS Workshop 21 June 2016

Keynote speakers



Prof. Dr. Lukas Rohr
 Director at Berne University of Applied Sciences, Engineering and Information Technology. On international level he is involved in the Communication & Networking area of the project "Internationalisation of Swiss Universities of Applied Sciences and Arts" of swissuniversities. He is a member of the Commission Education and Research at economiessuisse and Deputy Member of the SNF Swiss National Science Foundation. He holds a Doctorate in Physics from the University Basel and a MBA from the Federal Institute of Technology (ETH) in Zurich.



Prof. Ing. Paolo Pedrazzoli
 Head of the "Sustainable Production System" Lab at the University of Applied Science of Southern Switzerland (SUPSI), where he is professor of "Modelling and simulation of industrial production systems" and Responsible for the Bachelor of Science in Industrial Engineering. He acts as coordinator of national and EU funded projects and holds a PhD in Industrial Engineering and a Master of Science (MSc) in Mechanical Engineering.

Longlist selected European Experts for roundtable discussion

Participants	
Nicholas Deliyankis	Deputy Head of Unit Industrial Technologies (DG RTD)
Peter Baur	Policy Officer University-business cooperation and entrepreneurship, (DG EAC)
Erwan Huon de Kermadec	Policy Officer (EARTO)
Anna Toivonen	Policy Officer on Research, Development and Innovation (EURASHE)
Sara Hoogeveen	Secretary General (UASnet)
Karin Lukas-Eder	Representative EU Liaison Office (BayFOR)
Florian Pecenka	Head Unit Science & Research (Permanent Representation of Austria to the EU)
Maria Stergiou	Scientific Collaborator International Relations (swissuniversities)
Nadia Bregoli	Member of the Commission International Chamber FH (swissuniversities)
Maryline Maillard	Science and Technology Counsellor (Mission of Switzerland to the EU)
Giambattista Ravano	Professor & Director (University of Applied Sciences and Arts of Southern Switzerland SUPSI)

SwissCore

Contact Office for European Research Innovation and Education

in cooperation with

swissuniversities

would kindly like to invite you to the

Swiss Thematic Workshop

on

Swiss Universities of Applied Sciences and Arts in the European research and innovation landscape

Showcases and Success stories

with

Prof. Dr. Lukas Rohr & Prof. Ing. Paolo Pedrazzoli

21 June 2016, 14:45 – 18:00

SwissCore

rue du Trône 98, 1050 Brussels

The Swiss Universities of Applied Sciences (UAS) – stimulating European applied research and innovation

UAS are real connectors in the region and have a natural collaboration with universities, SMEs, large industry, regional authorities and citizens as deliverers of education, training and applied research. Given their central role in research and innovation ecosystems, one would expect their participation to be high in the European research and innovation framework programmes. However, this is still not the case, despite the fact that UAS are in a perfect position to bridge the gap between research and market. The UAS, and more specifically in this instance the Swiss UAS, have a lot to contribute and would like to fully participate in the European research and innovation landscape. How this is done and how the Swiss UAS perceive their role in the European research and innovation landscape is the aim of the workshop, next to showcasing with a concrete example that UAS can be very successful. It all depends on some key ingredients from both the European and the Swiss side to make it happen and work!

Key questions for roundtable discussion

- What role do (Swiss) UAS have to play in the European research and innovation landscape?
- How can Swiss UAS achieve more impact within the European Framework Programmes?
- What should be changed on the programme side (Horizon 2020), but also on the institutional side (UAS internally) to benefit more from Horizon 2020?
- What is needed to position the UAS successfully?
- How can the UAS be better represented and given a strong voice?
- How important is the role of international networks for UAS?

Draft programme

21 June 2016, 14:45 – 18:00

14:45	Arrival and coffee
15:15	Welcome and introduction Charlotte Geerdink, European Advisor for Innovation (SwissCore)
15:20	Introduction swissuniversities & Project Internationalisation UAS Maria Stergiou (swissuniversities)
15:30	The role of Swiss UAS in the European research and innovation landscape Prof. Dr. Lukas Rohr
15:50	Swiss success story of SUPSI Prof. Ing. Paolo Pedrazzoli
16:10	Roundtable discussion with selected European experts Moderated by Charlotte Geerdink, European Advisor for Innovation (SwissCore)
17:15	Apéro riche

On personal invitation only!
Please reply before 31 May 2016

Annex VI: UAS Workshop 21 June 2016

Finally, a **thematic workshop** held on 21 June presenting the results of a project coordinated by a Swiss UAS and funded by FP7 or Horizon 2020 was organised. It showed the role of Swiss UAS to bridge the gap between research and market. The keynote speakers were Prof. Dr. Lukas Rohr, department leader for Engineering and Information Technology at the Berne University of Applied Sciences as well as Prof. Ing. Paolo Pedrazzoli, Head of the “Sustainable Production System” Lab at the University of Applied Science of Southern Switzerland (SUPSI). From their experience and setting this in a broader policy and programme context of Swiss UAS participating in FP7 and Horizon 2020, the aim was to showcase the strength and essential role of (Swiss) UAS in the European research and innovation landscape.

Executive summary

UAS are real connectors in the region and have a natural collaboration with universities, SMEs, large industry, regional authorities and citizens as deliverers of education, training and applied research. The workshop focused on Swiss success stories in participating in the European research and innovation landscape next to identifying obstacles for participation and what solutions could be found to these obstacles.

Maria **Stergiou**, Scientific Collaborator within international relations of [swissuniversities](#), gave an introductory presentation about swissuniversities and explained the internationalisation project of UAS in Switzerland. The organisation of a UAS workshop was one of the concrete objectives in the internationalisation project.

Prof. Dr. Lukas **Rohr**, Director for engineering and information technology at [Berne University of Applied Sciences](#), went on to explain the role of Swiss UAS in the European research and innovation landscape. The goals of [Switzerland Innovation](#) are R&D collaborations between companies and universities by attracting companies and research partners that develop new products, services and processes and supporting the search for investments for research and development.

Prof. Ing. Paolo **Pedrazzoli**, Head of the “Sustainable Production System” at the University of Applied Sciences Southern Switzerland ([SUPSI](#)) shared his success story of European projects in the area of industrial production systems. Having started in 2008 with applying for and successfully obtaining European research and innovation over the years to further develop his and SUPSI's expertise, he did a couple of recommendations: to find someone with excellent knowledge and experience that can work in European projects; to constantly develop competencies in a specific research field; creating, joining and maintaining networks and caring about politics.

Following the speakers inputs, a roundtable discussion with European experts was moderated by Charlotte **Geerdink**, European advisor for innovation at [SwissCore](#).

Main messages from the roundtable discussion

- UAS have no general policy for long-term, big projects but rather focus on the smaller projects because they are easier to handle and 'closer to home'/direct implementation seen in the regional setting.
- There should be better connections between national and EU funding (synergies should be created).

- Most of the time, a communication gap exists. The UAS, e.g. Austrian UAS, are not very good in marketing themselves. They should create more and better visibility regarding their role and what they have to offer.
- UAS need to be better networked, via e.g. COST, the KICS, but also by getting out there, attending conferences, such as brokerage events organised by national contact points and the European Commission.
- On the institutional level, it would be helpful if researchers would get more freedom (less teaching duty) to conduct their research.
- "European projects don't happen overnight, it takes a lot of time and patience, but once you know how it works, this high hanging fruit is juicer than the low hanging fruits, i.e. national funding, the latter which in general has higher success rates." (Paolo Pedrazzoli, SUPSI)
- It is not just about networking, one also really has to have good knowledge (being an expert in his or her research field (it's still about the excellence and impact!)).
- Better integration between research and education needed (use e.g. Knowledge Alliances of Erasmus+ although Swiss cannot participate).

Next steps

An invitation for a follow-up meeting for workshop participants in Switzerland was announced. More information will follow.