

## European universities CPU proposal

### ***Objective for the creation of European structuring partnerships***

- Structure the EHEA and ERA together
- Aims to support common long-term strategies both in education and research between a limited number of European higher education institutions (4 to 6), who have decided to work closely together to provide innovative pedagogies and excellent research, building on their complementary strengths. This network of universities aims to create a mobility space for all types of members (students, professors, researchers, administrative staff) and covers all the fields of partners (training, research, innovation, governance, etc.). These European universities are intended to cover multiple areas of cooperation and not just one single theme.
- The resulting leverage effect will give further structure to relationships between institutions at student, lecturer-researcher and administrative staff levels, with a maximum number of them being able to benefit from this closer cooperation.
- It will also strengthen the virtuous links between research and training and reinforce complementarity between higher education institutions.
- Cooperation should cover all 3 cycles: Bachelor, Master, Doctoral levels, and could be specialised in certain areas
- Ensure sustainability for their modus operandi

### ***How?***

By supporting a genuine integrated vision between Erasmus+ and H2020/FP9, reinforcing the links between education and research activities by funding activities that are complementary to FP9 and Erasmus+ projects and will ensure the sustainability of the cooperation and long-term common objectives.

### ***1. Strengthen the links between research and education***

- ***Develop critical thinking among students, starting at Bachelor level***

Involve research teams of the member institutions in the creation of a module in the curriculum offer of the European university to not only raise awareness about research among students at undergraduate level, but also to develop their critical thinking skills. This module could address the following topics:

- i) explanation on the identification of a scientific question,
- ii) bibliographic research and tools,
- iii) selection of instruments to resolve a scientific question,
- iv) a short stay in a research team in one of the structuring partnerships institutions (could be supported by Erasmus+ KA1),
- v) basis of scientific integrity,
- vi) presentation of research professions and the means to enter them.

This course module could be co-developed by different stakeholders from partner institutions and be made available to all students from the partnerships as an integral part of their curriculum. It could be

distributed either via videoconference or via the creation of an online platform, and encourage students to work in multidisciplinary teams. H2002 and FP9 beneficiaries would be requested to illustrate this module with concrete cases.

- ***Develop innovation and entrepreneurship skills: from the laboratory to the production and enterprise.***

The creation of a module in the curriculum offer of the members of structuring partnerships will be strongly supported in order to raise awareness about the innovation and entrepreneurship among students at master and PhD level. This module could address following topics:

- i) protection and exploitation of intellectual property resulting from the work of researchers,
- ii) the maturation of innovation projects and technology transfer
- iii) what is entrepreneurship about?
- iv) from research to entrepreneurship (including testimonials of student researchers who have carried out a business project),
- v) the various mechanisms combining research and business creation.

This course module could be co-developed by different stakeholders from partner institutions and professionals in innovation and business creation. They will be distributed either via videoconference or via creation of an online platform.

- ***Life long learning***

Lifelong learning (LLL) is essential for the competitiveness of the knowledge-based economy. It applies to all levels of education and training and concerns all stages of life, as well as the different forms of learning. People who are following LLL are in general older than a student in initial training and may often work in parallel, making mobility impossible during the course of study.

Thus, the creation of pedagogical modules on line adapted to this target, with a mix with a visio with the teachers appears as a solution. The portfolio of on line courses for the different program developed by the teaching staff of the institutions involved in the European university for the students in initial training will be made available to the LLL courses. In the LLL, they'll be here designed to encourage the delivery of skills rather than lead to diplomas

The modules may be designed in the aim to transfer the latest research knowledge.

## ***2. Dissemination of H2020 and FP9 results back into education***

- ***Researcher mobility***

There will be a need to strongly encourage integration and dissemination the European research programmes knowledge to this institutional network, once one of the institutions participates in the H2020 and future FP9 projects (e.g. the ERC, MSCA or collaborative research projects) which should lead to a quasi-systemic transfer of knowledge towards the training of the involved institutions, raising of awareness about the research at undergraduate level and doctoral level (according to the relevance of knowledge) and additionally through seminars (which could be on line) and internships in labs (especially in those which manage FP9 projects) of the members of partnership.

- ***Invited expert mobility***

There will be a need to have a mechanism to invite high level researchers/ teachers/ innovator/ industrialist from a member university staying between 1 and 6 months to deliver lecturers, to share

their know-how and to expand gateways between the training, research and innovation (he will have the possibility to address his knowledge to all members of the European university, either through virtual and physical mobility (cf. annex 1).

### **3. Education**

**3.1. Mobility as a tool to structure and strengthen these partnerships**The structuring partnerships will be built on the basis of a multi-annual strategy jointly drawn up by the member institutions.

The European universities will have to demonstrate their willingness to structure their partnership in a sustainable way, notably by strengthening the link between research and training. They could also highlight their complementarities and common features as well as the willingness to strengthen their specialisations and centres of excellence.

They should be flexible and dedicated to a continuous support (5 years with an intermediate evaluation in the 3rd year).

The cooperation between members of structuring partnerships could be additionally supported and assured in terms of sustainability. The mobility will be considered as an important vector for the alignment between heads of department from institutions, lecturers-researchers and students. This mobility is to be addressed to different categories of institutions and will strengthen strategic links and certain areas of specialisation of these institutions.

#### **3.1.1 student mobility**

There is a panoply of European programmes / tools to favour the mobility of students. The objective is to have a sufficient number of students concerned. The institutions of this partnership can then choose the right instrument and increase the integrative process step by step and whatever the proposal, a substantial amount of students must benefit from this mobility. The supervised mobility (comparing to the free mobility) shall create real trusty environment, for both students and teachers; it is a key element in increasing mobility. This physical mobility of students can be achieved through three different processes:

- *credit mobility*, which shall concern substantial number of students in another institution member (s) of the partner, which will be part of their curricula from their host institution (studies or internship, whose duration can vary from 2 months to one academic year)
- mobility through double degree diplomas (studies or internship following according to the modalities established by the partners)
- mobility in joint masters or joint diploma (possibility of using Erasmus mundus programme)

Student mobility, via credit mobility, is one of the levers allowing the individualisation of curricula, as well offering the possibility to develop training courses based on pluridisciplinarity promoting the idea of a training program built around of major and minor. This approach is today recognised to ensure better employability.

The doctoral candidates will have the possibility to apply to specific MSCA programme for its mobility

Concerning the mobility of students with disabilities, a charter drawn up by the European Commission would enable the actors concerned to clarify their reception procedure, aiming to harmonise practices between EU member states.

### **3.1.2 Teachers/ researcher mobility**

Setting up double degrees or joint degrees imply mobility of faculties and researchers

- as visiting professor (mobility window for ECTS)
- as professor contributing to the setting of double degree
- as professor contributing of joint degree

It should be noted that the mobility of teaching often allows, in parallel, the emergence of new scientific cooperation during the partner's stay. This is thus an opportunity to reinforce the link between research and teaching.

### **3.2 Innovative pedagogy**

Pedagogical innovation is an opportunity to promote the individualisation of students' training curricula by breaking down the barriers between disciplines.<sup>1</sup>

#### **3.2.1. New approaches of teaching learning**

The new pedagogical approaches must be at the heart of the concerns of the members of these partnerships (it would represent a criteria of evaluation). The use of digital tools is a means of facilitating their development and implementation in the curricula.

- self-student enter approach / Flipped classroom<sup>2</sup>
- blending learning, combination of face-to-face training and distance learning, helps to optimize time spent in classrooms, individualize courses and improve the quality of training programs.
- problem-based learning (PBL) is a student-centred approach in which students learn about a subject by working in groups to solve an open-ended problem. It can be conducted in both face-to-face training and virtual classrooms.

#### **3.2.2. Virtual classroom**

Virtual mobility cannot replace physical mobility. It should be considered as an additional tool enabling new types of cooperation between institutions, notably by contributing to distance learning for joint diplomas or to scientific web-seminars for doctoral students.

It will be useful to encourage the creation of distance course modules in the framework of double degree diplomas in order to allow students to experience the internalisation. These modules could be distributed to classrooms via videoconference but also via a platform and they are particularly adapted to the format of visio conference/ virtual class. It's the way towards international at home and inclusiveness. In addition, the pedagogical approach could follow the 'problem-based learning' method, by fostering the collaborative working mode between students from different institutions involved in the training.

## **4. How to strengthen the cooperation strategy**

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<sup>1</sup> One of the pedagogical approaches, the integrated curriculum, which makes it possible to learn around a theme using several disciplines (either multidisciplinary or interdisciplinary or transdisciplinary) is described here: <http://www.ascd.org/publications/books/103011/chapters/What-Is-Integrated-Curriculum%C2%A2.aspx>

<sup>2</sup> <http://www.uq.edu.au/teach/flipped-classroom/what-is-fc.html>

#### ***4.1. Strengthening the institutional links between the member institutions involved in European universities: an European capacity building***

This partnership is based on evolution on common strategies, improvement the functioning of administrative structures and problematic (estate, financing, energy, sustainability concept factor 4, well being of students, HR strategies, leadership and management, governance, as well improvement of internationalisation of the institutions, etc.). These important issues can be dealt inside an infra (between the member of the European university) European capacity building. They may concern the academic and administrative staff with physical and virtual mobility.

Conclusions will be made available to each community lacking the dissemination in sharing their best practices. The objectives will be based on the assistance to one of the partnership members, improvement of the internal process, the quality assurance, dissemination (outside Europe) and the visibility of new practices. It must be made available to all the members.

The members of the European university will propose their own priorities and objectives

#### ***4.2. Platforms in service of the structuring partnerships***

In order to alleviate difficulties associated with long mobility for certain categories of students, there is a need to strongly encourage the use of tools such as the videoconference or the course modules (credit mobility) uploaded to a platform by a partner institution. Similarly, the use of 'blended learning' in the framework of double degree diplomas will be supported.

Digital sources, in terms of content and recording, could be made available to the community after a period of time agreed between the institutions of the structuring partnership.

#### ***4.3. Synergies to be strengthened***

Greater interactions sought between the ESF and the Erasmus+ programme will come about through a true harmonisation of the rules for funding and the accounting calendars in order to increase leverage (e.g. equipment, long-life learning) and a complementary funding for individual mobility.

#### ***Necessary conditions***

This integrated vision requires:

- Tighter governance between the three Directorates General (notably the DG R&I, DG EAC and DG REGIO);
- Stronger and more structuring links between the Erasmus+, H2020 programmes and the structural funds, and real research/training interactions that can work in favour of the strategy implemented by higher education institutions;
- The research dimension should be integrated into the Erasmus+ programme wherever possible, and the training into the H2020 programme, in order to facilitate as soon as possible the transfer of research results to the education, notably the education of young researchers;
- Reinforcement of links between the public and private actors.

## **5. TOWARDS A STRENGTHENING OF RESEARCH AND INNOVATION ACTIVITIES**

Once the European universities have been set up under DG EAC umbrella (Erasmus + program, with FP9 complements for support to research activities), the transition from a coordination mode of operation to a more established governance is launched, and the proof of their functioning is acquired

(whatever the chosen model), the European universities will have the possibility to reinforce their cooperation via research or research & innovation projects.

1. They could receive funding through existing FP9 calls for proposals, some of which would be targeted at European universities. In this context, several types of calls for proposals could be of interest, such as ITNs, collaborative projects based on missions (see Lamy report), etc.
2. The objectives of these research and innovation projects could, within FP9, be reached by the setting-up of dedicated calls for proposals responding to a specific demand of impact in term of worldwide recognition and also socio-economic impact on the territories.

- calls for proposals whose objective could be to strengthen ecosystems on excellent research and innovation projects (link to the "territorial connection" CPU proposal). These projects will have socio-economic repercussions on these different territories, tighten the links between these ecosystems (links with local actors - start-ups, companies, poles) on the basis of excellence.

- research and innovation project of a laboratory without walls (bringing together laboratories from these institutions members of these European universities) to increase the quality and scientific originality, the transfer of knowledge produced and contribute to the international visibility of these universities. In this context, the results will have to play a driving role in the training. These projects will also need to strengthen the dynamics of the ecosystems concerned.