

Unlocking Innovation at Universities Attracting International R&I talent to Europe Spotlight on CG Universities' existing schemes Remaining Challenges

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This paper is published in the aftermath of the first ever <u>European Union Innovation Days in the Silicon Valley</u>, to which Coimbra Group took part as member of the high-level delegation accompanying EU Commissioner for Innovation, Research, Culture, Education and Youth Mariya Gabriel (21-23 March).

This paper shines the spotlight on a selection of examples illustrating how Coimbra Group (CG) Universities are already supporting innovation and entrepreneurship within their communities, as well attracting international talents - researchers, entrepreneurs - to their campuses.

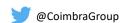
It also highlights a series of challenges that remain to be addressed at EU and national policy-making level for Europe's Universities to thrive even more as cradles for innovation.

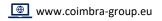
As recognized by the European Parliament in its <u>resolution on a new ERA for Research and Innovation</u> (2021), **European universities and academic institutions play a pivotal role in creating vibrant R&I ecosystems**. MEPs also underlined the central role of students as the next generation of innovators.

Reunited for the past 35 years under the common motto « A tradition of innovation", **Coimbra Group (CG) Universities are flagship examples of this affirmation**, as developed in the next couple of pages.

Their everyday commitment to perform at best in education, research, innovation and service to society at the same time, contributes to the European Knowledge Square taking its full meaning. This is undeniably a collective strength of the European knowledge ecosystem.

The Coimbra Group Executive Board and Brussels Office wish to warmly thank CG member universities and their staff for their contributions to this paper.









1. How do CG Universities foster innovation & entrepreneurship?

The richness and multiplicity of initiatives carried out at CG universities in support of innovation and entrepreneurship reflects the diversity of their respective institutional culture and national regulatory environments. In any case they all share in common a strong willingness to create favorable conditions for research to translate into innovation and value creation.

In particular, their endeavour to spread the **innovation culture** among early-career researchers can be noticed. This is often done at university directly: several CG universities for instance have their own **Innovation Hubs**. In the same vein, some CG universities provide specific support to **early-stage entrepreneurial project** and researchers through **mentoring programs**, enabling less experienced entrepreneurs to profit from experienced business mentors.

CG universities also engage with the rest of the R&I ecosystem in virtuous dynamics. It happens through **financial partnerships** with national banks, providing seed funds to young researchers for the creation of startups and spin offs. I also takes the form of **strategic partnership** with leading companies.

Indeed, engaging with the **whole innovation ecosystem** is of particular importance for CG Universities, and they are thus usually providing support through the entire innovation cycle. Some universities, such as Uppsala University, including have their **own investment fund**.

A selection of the most significant initiatives may be found in the table 1 below.

Remaining challenges and obstacles to be addressed at EU and national level:

However, CG universities see room for improvement to fully unlock their innovation potential. They identify several challenges that remain to be addressed by EU and national policy-makers, when it comes to translating research into innovation:

- Cumbersome legal framework conditions, which often delay bureaucratic access to capital.
- Lack of funding for translating research into innovation, as well as for pre-seed/seed funding and Proof of Concept (PoC) funding.
- → Depending on the geographic area, it can be difficult to find large companies ready to finance innovation (mainly in areas with large SME establishment).
- **Research infrastructure funding** remains insufficient and can constitute a real barrier.
- → Too often, universities lack access to the relevant markets due to their lack of market experience and product development, marketing and commercialization activities.
- National legislation can hinder the commercialization of research outcomes.
- Even if recognized necessary, the involvement of the whole innovation ecosystem is not always achieved (ranging from universities to Chamber of Commerce, business associations, start-up incubators and accelerators...).



Table 1. How do CG Universities foster innovation and entrepreneurship? Some examples

◆ Aarhus	The Kitchen is the university's biggest startup hub dedicated to help
University	entrepreneurs and innovators grow: https://thekitchen.io . The hub is home
	to +150 startups from different backgrounds and sizes, +40 spinouts, +200
	members. Collaboration with the city's private and public sector is a key element in The Kitchen, as well as diversity (31% of all entrepreneurs at AU
	are women).
◆ University	The Mentor in Residence program (MIR) is the university's tool to promote
of Barcelona	the creation of new spin-offs and support the development of recently established ones by providing funds to hire a mentor (see:
	http://www.fbg.ub.edu/f2i).
	The university also benefits from the grant scheme offered by the Agency for Management of University and Research Grants (AGAUR), which consists of
	an annual grant scheme to hire an entrepreneur who will develop a
	valorisation/entrepreneurial project in entities of the R&I system of Catalonia.
◆ University	The University organizes every year a "Startup Day", an event in which new
of Bologna	companies get in contact with potential funding partners or other companies.
	The University is also participating in international open innovation initiatives, such as Circular Building Industry (https://cbi-booster.ch) or SUGAR network
	(https://bit.ly/3z15Bgo).
University	The University has its own incubator, the Instituto Pedro Nunes (https://www.ipn.pt), which provides guidance for early stage projects,
of Coimbra	technology-based or advanced services business projects. It also have a
	European Space Agency incubator to attract entrepreneurs.
◆ University	The University has the Science Innovation Hub (https://www.unige.ch/sih , a pre-incubator dedicated to experimental-entrepreneurial ideas, to support
of Geneva	the development of innovation start-ups from the Faculty of science
	laboratories. It also aims at fostering exchange among the Faculty and
	industry to help turn research into products to create value and impact on society.
◆ University	The Entrepreneurial Hub named Konttori (https://bit.ly/3ndo0nJ) is a space
of Turku	that gathers students and other members of the University community with those interested in entrepreneurship, as well as with parties that can provide
	them with support and inspiration. Moreover, the University campus hosts
	the Boost Academy community working space for students startups , a place
	for student-run entrepreneurship events, trainings and activities, which is run by the student-led entrepreneurship society Boost Turku.
	The University also has its own internal budget for small PoC studies , novelty
	and prior art searches as well as for patenting.
◆ ELTE,	The university's Faculty of Informatics is a founding member of the EIT Digital (https://www.eitdigital.eu) as well as a founding member (with several more
Budapest	faculties involved) of the EIT Culture and Creativity KIC (https://eit-culture-
	<u>creativity.eu</u>).
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2. How do CG Universities differentiate in the global competition for attracting R&I talent?

While benefiting from different national and legislative environments, CG universities are strongly committed to create **favourable** and **stimulating ecosystems** for international talents. It is done through specific **investment funds**, or through the support that universities receive to develop entrepreneurial support mechanism open to international entrepreneurs.

CG universities also do so through **funding programmes** targeting top researchers across the globe, in complement of European or national level grants. Some CG universities direct their efforts towards intensive **training programmes**, aiming at providing help for the writing of competitive proposals (e.g., for top researchers willing to a submit Horizon Europe Marie Sklodowska-Curie Postdoctoral Fellowship). To attract young talents to Europe, CG universities also rely on **international exchange** and **cooperation**, with **alliances** of universities or **bilateral** measures aiming at fostering researchers mobility. Some also invest in human capital by setting up top performing international research teams which will attract top scientific talents.

Finally, some of the CG universities provide attractive **working conditions**, offering **permanent** and **tenured positions** to researchers. This can participate in increasing the attractiveness of some specific geographical areas, creating *in fine* competitive ecosystems increasing research competition.

A selection of the most significant initiatives may be found in the table 2 below.

Remaining challenges and obstacles to be addressed at EU and national level:

However, CG universities stress several measures that would help to improve universities' attractiveness for international talent.

- ➡ Reducing the administrative hurdles concerning non-EU researchers (simpler and more flexible visa procedures and work permits, less legal bureaucracy on reporting and project administration...).
- ➡ Facilitating and encouraging the entry of international talents on the labor market (detaxation of entrepreneurs, innovators and researchers in countries like Italy, increasing researchers' salaries, furthering transferable skills, enabling work experience outside academia to foster employment opportunities...).
- ➡ Improving researchers' integration in the country (providing housing, speeding residence permit process, creating a fast track for specialists, entrepreneurs and their family, fostering integration in the local community...).
- Creating dedicated innovation funds for research-based innovation/to attract startups and entrepreneurs.
- ◆ At EU level: establishing EU-wide funding schemes for research and innovation (strengthening of bilateral funding mechanisms e.g., European Erasmus funding for North America).
- ◆ At national level: investing in research infrastructures.
- ◆ At institutional level: Investing in research teams, e.g. dedicated educational and training paths for administrative staff.



Table 2. Which initiatives do CG Universities promote to attract international talents? Some examples

Åbo Akademi University	ÅAU has some specific pilots that target certain regions in the world in order to increase research cooperation. At national level, the government has initiated a Talent Boost programme , aiming at attracting researchers to Finland (https://tem.fi/en/talent-boost-en).
◆ University of Barcelona	The University benefits from the ICREA Programme (https://www.icrea.cat/en/who-we-are) which aims at integrating research professors by putting in place a competitive research system in Catalonia: if offers permanent, tenured positions to researchers from all over the world. Created in 2001, it employs 278 researchers in all fields of knowledge, performing their research in 48 different host institutions in Catalonia.
◆ University of Bologna	The government of Bologna's region has recently approved a law for the "Talent attraction", related to entrepreneurs, researchers and in general innovators. At the University level, a range of opportunities are offered to international staff, professors and researchers (see: https://bit.ly/3npLx4N). Moreover, support in obtaining essential information to move and live in the Bologna region is provided for Italian and international researchers through the "Invest in Bologna for Talent" programme (https://www.investinbologna.it/Home/For Talent).
◆ University of Heidelberg	The University benefit from the HighTech Gründerfonds (https://www.htgf.de/en), a public-private-partnership established in 2005 and worthing €500 Million, among the largest funds in Europe. It also benefits from the German Accelerator, a program bringing German startups into International markets that has supported more than 850 startups so far.
	Moreover, the government has implemented EXIST Potentiale (<u>link</u>) to support universities to develop their entrepreneurial support mechanisms, by preparing their technology and knowledge based start-ups. With the 'Internationalization' track a number of universities have committed themselves to open up their support mechanisms to attract international talents and startups to come to Germany (e.g. KIT).
◆ University of Jena	At the University, several funding opportunities are available for international researchers, such as the ones offered by the DAAD, the Marie Skłodowska-Curie actions of the European Commission or the Humboldt Foundation. There are also special bilateral measures such as the Berkeley - Uni Jena Research Fellowship Program, which targets young researchers from Berkeley, with the aim of bringing them to Jena.
	For entrepreneurs, there is the International Startup Campus (https://internationalstartupcampus.com), a joint startup initiative funded by the BMWK and anchored in Central Germany (University of Jena, Halle and Leipzig) which provides entrepreneurs with an international network, qualifications and market access.
University of Krakow	At Polish government level, the "The Excellence Initiative - Research University" programme (Polish acronym IDUB), is a noteworthy initiative aiming at a comprehensive reform of the Polish higher education and



science. In order to build top-performing teams and attract top scientific talents, the following actions planned in the IDUB programme have been implemented: New Blood, Incentives Program, R2R-Research to Research, Jagiellonian Fellowships Program, Jagiellonian Chairs Program, or Labs.

The University is also providing excellent conditions for the implementation of **prestigious grants** for the University: since 2021, it has received funding for **9 ERC grants**, showing the attractiveness of the university in the international arena.

To attract **entrepreneurs** – business partners from across the globe, JU created **sciencemarket.pl** (https://www.sciencemarket.pl/?lang=en), a portal with database of technologies developed at JU that are ready to be licensed and commercialized.

University of Padua

- STARS funding programme (link): Every two years the University selects the world's most promising young researchers, offering support to groundbreaking ideas with definite potential to turn into competitive proposals for international funding. Within this scope, the STARS grantees are bound to apply to an ERC grant before the conclusion of their project. STARS grants are open to all scientific areas and support research projects to be developed in one of the 32 Departments of the University of Padua. Successful candidates will get a fixed-term position of 30 months in Padua and an allowance to cover research expenses.
- MSCA Marathon (<u>link</u>): The University organizes the MSCA Marathon "Master your Research and Training Needs". This **intensive training programme** (now at its 7th edition) is addressed to top researchers, willing to submit a Horizon Europe Marie Sklodowska-Curie Postdoctoral Fellowship with the University of Padua as their Host Institution. It features interactive classes focused on how to write a successful proposal for the next Postdoctoral Fellowships (PF) call.
- Talent @UNIPD (link): This is an annual scouting initiative supporting excellent research aimed at attracting the most promising candidates who intend to compete for the annual calls "ERC Starting Grant" and "ERC Consolidator Grant" with the University of Padua as Host Institution. Selected researchers benefit from consulting services, from proposal writing and review to interview preparation and coaching.
- Seal of Excellence @UNIPD funding programme (<u>link</u>): The University has developed a funding programme specifically addressed to researchers who, in the Marie Skłodowska-Curie Postdoctoral Fellowships, have submitted a project indicating the University of Padua as their Host Institution and whose proposal, despite not being funded, has been awarded by the European Commission with the Seal of Excellence MSC Actions. The funding covers a research grant, along with research, training and networking expenses.
- Starting Package Cariparo (<u>link</u>): In 2022 the University launched the initiative "Starting Package for attracting excellent researchers", which is funded by Fondazione Cariparo. This initiative aims to foster the recruitment of international professors and researchers, providing them with funding ("Starting Package") to cover the costs of their research activities for the next two years.
- PNRR MUR Young Researchers programme (<u>link</u>): Under the Ministry of University and Research (MUR) and the NRPP, it is aimed at **funding**



	researchers winners of highly competitive calls from the European Commission, and in particular: ERC Starting grants, Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) and Postdoctoral Fellowships (MSCA-PF) or who have obtained a "Seal of Excellence" (SoE) following the participation in MSCA IF or PF calls. The University has ranked among the best Italian institutions for funded projects, with reference to the MSCA and SoE funding schemes.
	- The University is also member of the GISU Alliance (Alliance of Guangzhou International Sister-City Universities), a group of 18 universities with Guangzhou University (China) as coordinator. In the frame of this alliance, the University organize an annual International Startup competition to share ideas and best practice in the field of Innovation and Entrepreneurship. Among the prizes is the opportunity to spend a period in Italy for an acceleration programme .
◆ University of Turku	The University benefits from an attractive ecosystem, as active efforts are made to attract entrepreneurs to the city and its region. For instance, Turku Science Park Ltd (https://bit.ly/40HUKnx) is a regional development company coordinating the business and innovation service in the region, while Turun Seudun Kehitys Ltd (Turku Business Region) is a company owned by the municipalities of the region working on the business services and development projects defined by Turku Science Park Ltd. These efforts made the Turku region the most dynamic cluster of business and innovation activities in Finland. These activities are done in close collaboration with Invest in Finland , a governmental investment promotion agency that helps foreign companies identify business opportunities in Finland.
◆ University of Uppsala	At national level, the law on the "professor's privilege" is important as it ensures the researcher's right on its own research as long as it didn't agreed otherwise: it thus provides an attractive framework for international researchers. Moreover, in 2008, Swedish universities were given the opportunity to develop an innovation office with the task of increasing the utilization of research. The development of the innovation office was to be carried out in close cooperation with other universities and colleges in the region. The innovation offices support researchers and students in the early stages of innovation development.
	The ecosystem for innovation support surrounding Uppsala University is one of the best in Sweden and is competitive on an international arena .



The Coimbra Group

The Coimbra Group is a European university network, which, since 1985, has promoted higher education and research cooperation. The Coimbra Group consists of forty-one comprehensive, long-established research universities from across Europe. It comprises key institutions for promoting staff and student mobility and fostering international mobility of doctoral candidates and early-stage researchers. It brings together members from all European regions. It has, therefore, a particular awareness of regional differences and the varying impact of economic and financial instability on different higher education and research systems. The Coimbra Group members strongly emphasise the importance of fundamental research and see the SSH as equal and integral parts not only of their teaching and research portfolio, but also of their contribution to society and to economic development. Moreover, the Coimbra Group and its member universities have a long-standing tradition of global collaboration with institutions of research and higher education in other world regions.

http://www.coimbra-group.eu

