

The Role of European Universities in European Innovation Ecosystems

On March 25th, 2025, IMT and France Universités organized a joint event at Maison Irène et Frédéric Joliot-Curie to explore how universities contribute to regional innovation ecosystems and to identify practical solutions to scale up these efforts at national and European level.

It aimed to address the potential of European University Alliances to enhance collaboration between the public and private sectors through local innovation hub.









Table of content

The Role of European Universities in European Innovation Ecosystems	1
Putting research and innovation at the center of Europe's Economy: European Universities key driver	
IMT's innovation funding scheme: from local implementation to transnational synergies EULiST	
When Research becomes entrepreneurial	7
European universities supporting start-ups and entrepreneurships	8
Europeanisation of Innovation Funding Scheme	11
Closing remarks	14



Executive Summary

European universities play a crucial role in shaping local and transnational innovation ecosystems, serving as hubs for cutting-edge research, entrepreneurship, and cross-border collaboration. Their strategic involvement in regional development initiatives contributes not only to scientific progress but also to the competitiveness of Europe on the global stage.

Launched in 2019, the European University Alliance Initiative today involves over 570 higher education institutions from 35 countries, reinforcing the need for multi-level cooperation (local, regional, national, and European) to drive economic and social impact. As demonstrated by alliances such as EULiST, EuroTech, and Ulysseus, European universities can facilitate collaboration across borders, enabling the sharing of knowledge, resources, and infrastructure to enhance innovation capacity across regions.

The development of quadruple helix initiatives (industry, academia, policy, and civil society) fosters integrated approaches to research and innovation that benefit society as a whole. Regional innovation ecosystems, bolstered by universities, are key in addressing the twin transitions (digitalization and sustainability), with a focus on smart specialization and multi-level governance. Universities are deeply embedded within these ecosystems, contributing through their missions of education, research and innovation. However, challenges remain in aligning these initiatives across different education systems and government structures.

The European Commission's 2025 report on European University Alliances underscores the growing importance of these alliances in contributing to both regional development and European competitiveness, by driving the transformation of the European higher education sector.

A critical aspect of this evolution is the importance of scientific excellence in driving innovation. European universities, as centers of basic research, continue to play a fundamental role in the development of new technologies. This is particularly evident when supporting deeptech start-ups, such as Cloud Data Engine and the development of spin-off, such as PrediSurge and KaomX, which bridge the gap between scientific research and entrepreneurial ventures.

Start-ups benefit from strong ties with universities, using incubators, mentorship, research infrastructure and access to funding opportunities to bring new technologies to market. In parallel, the Horizon Europe framework provides vital funding mechanisms that support research, innovation, attract private investments, and encourage cross-border collaborations.

However, Europe must strengthen its ability to attract and retain talent, particularly researchers and innovators. Universities, by fostering attractive environments for academic freedom, research excellence, and student engagement, are central to achieving this goal. The Smart Specialization Strategy (S3) initiative also emphasizes the need for regions to better define and communicate the areas of expertise of regional actors, thereby attracting top talent and fostering innovation ecosystems.

The integration of European universities into broader transnational networks provides an opportunity for scaling innovation. Sharing research infrastructures and resources across borders, enables universities to leverage complementary expertise and foster new market opportunities. This networked approach also facilitates access to foreign investment and industry partnerships, contributing to the growth of high-potential start-ups.

European universities are not only integral to regional innovation ecosystems but are also central to Europe's competitiveness on the global stage. By continuing to foster collaborations between academia, industry, and government, and by supporting the transfer of knowledge and technology, universities will remain key drivers of economic growth and technological advancement in Europe.

Maintaining strong support for the innovation continuum, from basic science to industrialization is essential to ensure that Europe continues to lead in research, technological development and innovation.

Putting research and innovation at the center of Europe's Economy: European Universities as a key driver

With the new Commission, Von Der Leyen 2, stepping up efforts in research, innovation, science and technology is at the top of the political agenda. In its report on Europe's competitiveness, Mario Draghi pointed out the central role of universities in such efforts, highlighting the need to strengthen their links with private sector.

Still, University 4.0 are no longer simply places of academic knowledge, but real drivers of change. In July 2024, Elsevier defined them as "knowledge partners for governments, industry and other stakeholders, but also as diffusers of innovation and talent into global research systems and value chains". Technical Universities, in particulars, are drivers for changes:

- For social transformation through the development of skills and talent, and the training of future leaders, researchers, engineers and entrepreneurs who will build the Europe of tomorrow:
- For technological transformation through scientific expertise and the creation of new knowledge driving innovation;
- And, for economic transformation through support for the digital and environmental transition of businesses and industries in local ecosystems.

Higher education and research institutions are key players of the innovation value chain. At the heart of regional innovation ecosystem, higher education institutions are at the core of the 4Helix of innovation, alongside public institutions, businesses and industry, by:

- Through education, providing students and future leaders with skills to support industrial and societal transformations;
- Through research in laboratories, pushing back the frontiers of knowledge and supporting the emergence of breakthrough technologies;
- Through technology transfer, supporting the exploitation of research into the real world, bringing together the academic world and the private sector.
- Through our incubators, providing a conducive framework for entrepreneurship and start-ups by bringing resources, networks of experts and by helping to gather early-stage funding.

European efforts in research, technological development and innovation need to be stepped up if Europe is to keep up with global competition from China and the United States.

Since 2019, the European Universities initiative has been aimed specifically at strengthening the competitiveness of European higher education institutions. These strategic alliances are designed to strengthen transnational cooperation through transdisciplinary education, research and innovation programs. Interdisciplinary education and research are keys to provide young talents with skills and to support economic players with capabilities to tackle the many challenges of a world in transformation: energy transition, digitalization, climate change and health.

It is clear that higher education actors play an essential role in the creation and dissemination of innovation within local ecosystems. We now need to multiply these efforts at European level by facilitating and structuring cross-border cooperation among ecosystems, and by enabling a convergence of talent and ideas, to support the emergence of world-class technological companies.

Today supported by Erasmus+, European university alliances need new funding pathway to support, at European level, all the missions that they are already carrying out at local level.

IMT's innovation funding scheme: from local implementation to transnational synergies with EULiST

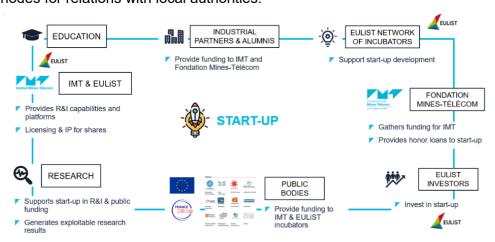
IMT is France's leading public Federal Institute of Technological Universities of Science and management. Under the authority of the Ministry of Economy, Finance and of Industrial and Digital Sovereignty, it aims at supporting the 21st century transitions through training, research and economic development.

IMT is known for its cutting-edge research on future-oriented topics: eco-designed and high-performance materials, advanced manufacturing processes and devices, industry 4.0 and 5.0, industrial ecology, low-carbon energy, 5G and 6G telecoms networks, IoT, cybersecurity, resilience and risk science, data science and artificial intelligence, digital health.

As a commitment to support economic development, IMT develops relationships with industry and the business world through 60+ industrial chairs and 40 joint laboratories. In fact, IMT is one of the top 50 patent filers in France and the 5th in terms of higher education institution. To this extent, IMT is supporting and funding innovation as the France's leading network of public-sector academic incubators (13 incubation sites).

IMT: local roots and national network supporting economic development

IMT is devoted to economic development with a strong local implantation. Its incubators are funded locally trough metropolitan and regional funds, with its Technological Universities acting as institutional nodes for relations with local authorities.



As a Federal national-wide Institute, IMT catalyses and provides funding to start-ups with a 360° support offer throughout the growth cycle of companies (market, technological maturity, funding, visibility). Every year, 80 new start-ups are created and 150 start-ups are incubated within the network, with 83% of which exceed the 5-year mark.

Thanks to its connection with industry, IMT can offer honor loans to innovative project. The funding scheme is based on sponsorship gathered through a dedicated structure: the Fondation Mines-Télécom. To this extent, its large and supportive network of alumni and corporate partners is a key asset to nurture the funding tool. Furthermore, IMT takes care of partnerships with Business Angels and Venture Capital, resulting in 100M€ seed funding raised every year.

IMT also supports start-ups development through in-kind contribution by providing access to research platform and to the expertise of the research and faculty staff. Its national dimensions allow to provide customized supports to start-ups by combining the technological and scientific complementarity of the 8 Technological Universities.

Corporate visibility is also at the core of this innovation strategy with participation in fairs (e.g., *VivaTech* in Paris), organisation of learning experience (e.g., Bits & Bretzel with the Munich ecosystem thanks to a partnership with the Technical University of Munich within the French-German Academy of the Future) and *hackathons*.

▼ HOPPER is a French start-up incubated at IMT Mines Albi



It provides a carbon leg prothesis with high-end performances for physical activity with recycled carbon from aircraft. It benefited from the multi-scale and multi-actor innovation funding scheme of IMT:

- High level education & Industry co-creation HOPPER is the result of a "student industrial project" program between IMT Mines Albi and Airbus, which aims at working to recycle composites structures of aircrafts.
- High-end Research & Technology Transfer HOPPER is developed with researchers of IMT Mines Albi and a research platform of IMT Atlantique dedicated to composites materials.
- 4HELIX Innovation HOPPER has been developed with athletes, patients, public bodies to guarantee end-users needs.
- **4HELIX Funding** HOPPER products can be co-financed by public bodies (healthcare system), industry (sponsorship), associations, NGOs and crowdfunding by citizens.

NEXT STEP: Scaling at European level through EULiST

The European scale: a major tool for scaling up and internationalization

In addition of this local and national network of funding and sponsorship partners, IMT develops a European minded strategy, with a strong involvement in the "Innovative Europe" pillar of Horizon Europe. It follows a two-sided strategy:

- On the one hand, funding from the European Innovation Council (EIC) enables to follow a
 go-to-market strategy by supporting projects from the EIC Pathfinder, the EIC transition to
 the EIC accelerator.
- On the other hand, the *European Innovation Ecosystem* enables to structure and develop the incubators network by financing joint programs.

Since 2023, IMT is also part of the European University Alliance <u>EULiST</u> (*European University Linking Science and Technology*), alongside 9 European university with complementary strengths in technical topics, humanities and social sciences: Brno University of Technology (Czech Republic), Jönköping University (Sweden), Lappeenranta-Lahti University of Technology LUT (Finland), Leibniz University Hannover (Germany), National Technical University of Athens (Greece), Rey Juan Carlos University (Spain), Slovak University of Technology in Bratislava (Slovakia), University L'Aquila (Italy), TU Wien (Austria).

One core aspect of the EULiST project is to create a virtual European-wide incubator, connecting EULiST Local Innovation Hubs, to support start-up in their internationalisation strategy and competitiveness. This would entail the following aspects:

- Transnational access to research infrastructures based on technological complementarity among partners;
- Transnational access to incubator services to support the internationalization of start-ups (i.e., access to foreign markets);
- Common mapping and database of Business Angels and Venture Capital to facilitate access to foreign capital;
- Common one-stop shop to facilitate access to European public funding (i.e., EIC Pathfinder, EIC Transition, EIE Connect);
- Design of European training programmes for entrepreneurship (i.e., learning experience, hackathon, bootcamp).

When Research becomes entrepreneurial



"The innovation cycle takes up to 15 years, from fundamental research to industrialization. The institutional support of IMT has been key in my entrepreneurial journey"

- Stéphane Avril, Professor at Mines Saint-Étienne

Stéphane Avril is a research scientist in biomechanics and mechanobiology at Mines Saint-Étienne, and Head of the department *Engineering of surfaces and biological tissue* of the Centre for Biomedical and Healthcare Engineering (StBio), Mines Saint-Étienne.

While being an internationally known scientific in the field of biomechanics, Stephane Avril is also an entrepreneur as his research works are being further developed through two spin-offs: **PrediSurge** (2017) and **KaomX** (2024).

The StBio Centre is closely linked to Saint-Étienne University Hospital (CHU), the University of Saint-Étienne and Inserm laboratory, in particular with the joint research unit Sainbiose, a research unit he co-leads. This ecosystem has been key in the entrepreneurial journey of Stéphane Avril, as he developed PrediSurge alongside Jean-Noël Albertini, vascular surgeon at CHU Saint-Étienne, and his PhD student, David Perrin.

1) PrediSurge

<u>PrediSurge</u>, founded in 2017, develops aorta's digital twins supporting surgeons' decision-making. It finds its roots in joint research activities with CHU Saint-Étienne to improve the safety of endovascular stent-grafting surgery to prevent aneurysm rupture, using data from medical imaging.

Incubated at Mines Saint-Étienne, PrediSurge benefited from Fondation Mines-Télecom's honor loans and support from IMT for managing IP Rights. In 2022, the start-up received an **EIC Accelerator Grant**.

KaomX

Launched in 2024, KaomX is the result of Stéphane Avril's work on the deformation of internal biological soft tissues. In 2022, he received an <u>ERC Proof of Concept Grant</u> to support the transfer of a technology mapping the elasticity of biological tissues, developed in a previous project.

KaomX aims at exploiting this technology to characterize hydrogel used for biomedical application, through a novel imaging device for elasticity measurement in cell mechanobiology. Stéphane now seek an EIC Transition Grant to further support this technological development.



Its project <u>Juven Twin</u>, for which he received an **ERC Advanced Grant (2024)**, is the result of research activities he led while being a guest professor at TU Wien, an EULiST university, from 2020 to 2022, where he works alongside a molecular biologist on multiscale model for mechanogenetics. This frame of collaboration might be institutionalized through the establishment of a joint lab between Mines Saint-Etienne, Inserm and TU Wien.

"The **JuvenTwin** project aims to understand and counteract the mechanisms behind arterial stiffening. By leveraging advanced "digital twins," it seeks to unravel the mechanobiological processes at the cellular level to delay or even reverse the effects of arterial ageing."

- Stéphane Avril

European universities supporting start-ups and entrepreneurships

Universities as key players of local innovation ecosystem

Universities play a vital role in fostering innovation ecosystems, serving as hubs for cutting-edge research, entrepreneurship, and collaboration between academia and industry. Several initiatives and models presented during the event underscored the transformative potential of universities in driving local and regional economic development by supporting the whole innovation continuum.

The Technische Universität München (TUM) and the Technische Universität Wien (TU Wien) provided key examples on the way universities get integrated in regional initiatives and ecosystems to support entrepreneurship.

The TUM innovation support scheme relies on strong links with industry to support the development of innovation and start-up addressing real-world challenges. Through its incubators, the TUM Venture Labs, and its start-up consultancy team, TUM provides key support to innovative companies, especially in the early stages of development, by attracting public funding and by developing bootstrapping.

TUM's focus on regional collaboration, especially in partnership with UnternehmerTUM, Europe's leading start-up hub, plays a critical role in strengthening the start-up ecosystem and its access to crucial funding by fostering collaboration with venture capitalists and business angels to further accelerate innovation.

In Vienna, the Center for Technology and Society (CTS) is a platform of collaboration gathering interdisciplinary and transdisciplinary expertise from TU Wien, FH Campus Wien, FH Technikum Wien and the University of Vienna to drive interaction between academia, business and society. The initiative emphasizes the **importance of bringing together diverse knowledge, which often results in friction and innovative breakthroughs**. CTS's teams also support the research team in accessing national funding and offer workshops and learning opportunities to advance projects.

▼ The Bavarian example

Bavaria, a European regional innovation leader, supports the development of higher institutions' innovation capabilities.

- The **Higher Education Innovation Act** (2023) aims at creating a flexible and agile research and innovation (R&I) landscape, developing higher education institutions into places of innovation. It provides a regulatory framework to unleash their potential, including through "research leaves" to authorize universities' professors to focus on their research predominantly or exclusively, and a facilitated access of foreign researchers to institutions and positions in the länder.
- The **Bavarian High-Tech Agenda** mobilizes € 5,5 Bn funding to invest in people and technological projects. Among others initiatives, it funds Technology Transfer Centers in universities to support the transfer of technology and knowledge. It has a particular emphasis on universities of applied sciences, which are often more regionally embedded, which helps ensure that innovation benefits local economies.

By building on regional strengths to connect ecosystems at European level, universities can create robust innovation hubs that have a European impact, including through collaboration within European universities alliances (e.g., Joint Research Lab).

European University Alliances: supporting European competitiveness through collaborative research and innovation



"[The European University Alliance] EULiST has the potential to scale up local co-creation scheme at European level, fostering new knowledge and tackling the European fragmentation through a European Wide Virtual Incubator"

- Anna Franzkiowak, Organization Director, CTS Wien, TU Wien

Universities have the potential to be key players of the European competitiveness agenda, especially through collaborative research and innovation. The speakers demonstrated the unlocked power of European university alliances to drive cross-border collaborations and scale innovation ecosystems. European Universities Alliances can facilitate the collaboration of knowledge, expertise, and research across Europe, enhancing the continent's overall innovation capacity, including through Joint Research Labs.

They highlighted the needs of supporting the whole innovation continuum, from fundamental research to innovation within the European framework program for research and innovation. Further support for innovation shall be driven by a risk-friendly approach and trust in entrepreneurs.

In Vienna, the CTS developed "Circles", inspired from the early 20th century "Wiener Kreis" of the logical positivism philosophical and scientific stream, to stir co-creation by gathering individuals from different academic and professional backgrounds. TU Wien is a member of the European University Alliance European University Linking Science and Technology (EULiST). According to Anna Franzkowiak, CTS Organization Director, "EULiST has the potential to scale up such a local co-creation scheme at European level, fostering new knowledge and tackling the European fragmentation through a European Wide Virtual Incubator". For entrepreneurs, such a European scheme would bring benefits by providing streamlined access to foreign local ecosystems and to foreign VC Capital and Business Angels.

TU Munich, through its university alliance EuroTech, aims at fostering knowledge exchange by bringing together researcher from across Europe in a cluster-driven approach. This cluster-driven approach also supports entrepreneurship through a "EuroTech Start-Up" initiative, building on the sectoral strengths of the partners, e.g., Al and robotics for TU Munich, automotive for TU Eindhoven. To this extent, they developed a European Venture Program organizing learning expedition to provide insights from foreign innovation ecosystems.

Paul-Guilhem Meunier, Head of Innovation and Economic Development at IMT, EULiST, stressed the necessity of going beyond the institutional frame of cooperation by enabling cooperation among diverse European university alliances, thus strengthening their network effect when connecting cross-border innovation ecosystems.

▼ The entrepreneur's point of view: Alban Schmutz, CEO of Cloud Data Engine



Cloud Data Engine is a deeptech start-up incubated at IMT Starter. Alban Schmutz stressed the great added value of universities to build strong links between entrepreneurs and academic research to enhance technology development, putting research at the heart of business innovation to drive new solutions and to get more value to the market.

Furthermore, universities' incubators provide key supports during the early-stage development of start-ups through **funding**, **helping to hire staff and mentorship to tackle technical challenges**. Being incubated within a university is of great added value to be known and to connect with entrepreneurs, engaging them in a peer-review process and offering opportunities for collaboration to better identify market opportunities and to refine business strategies.

Alban Schmutz stressed that further support of European University Alliances to European Innovation is needed and shall be driven by scale and speed, it should include:

- Simplifying access to resources: A true one-stop shop for startups across university networks. Entrepreneurs cannot navigate within each of the 10+ partner of the European university alliance as well as they cannot 27+ different national frameworks. Getting rid of fragmentation is key.
- Creating transnational research partnerships: Beyond learning expeditions, deeptech startups need joint labs connecting multiple universities and research centers. The onboarding should be simple and include fair IP global contracts thought in the interest of startups which, when successful, will invest back in research. Access to European public funding should be part of the package.
- Facilitating international market entry: A startup from one member country should have fast-track access to key stakeholders (investors, corporates, talent) in other member countries, with a single point of contact. A structured mentorship across borders programs could ensure start-ups gain insights from experienced entrepreneurs beyond their home market.
- Establishing a European university venture fund to finance spin-offs and highpotential startups.
- A unified talent network: a shared job board for startups within the ecosystem, helping them access student talent and alumni from across EULiST universities.

Europeanisation of Innovation Funding Scheme

Balancing Public and Private Funding for Innovation

The EU Political agenda aims to enhance European competitiveness by addressing the challenges of the fragmentation of the European market and attracting more private funding in research and innovation (R&I) to meet the Barcelona's target of 3% GDP dedicated to R&I. While Europe benefits from a strong R&I framework program, Horizon Europe, it lags behind United States (US) when providing private fundings.



Anne Besnier, Vice President for Research and Innovation of Centre-Val de Loire Region in France and rapporteure of the Committee of Regions for the FP10, emphasized the need for multi-scale efforts to attract private investments: European, national, and regional actions must adopt complementarity approach.

Regional authorities play a crucial role in combining public and private funding, as they have a deep understanding of the key actor involved in local innovation ecosystems, such as universities, research organizations, start-ups, SMEs and large companies. In Region Centre-Val de Loire, in 2024, € 22,6 M have spilled over € 80 M from private investors.



Since 2012, the Centre-Val de Loire Region has set up 7 investment funds, either public or public-private, supporting companies throughout their innovation process. It includes:

- 3 Seed and Acceleration funds of 200 € M targeting young innovative companies (CAP Creation, CVL Bootstrap, Loire Valley Invest);
- 2 Growth funds of € 90 M targeting regional SMEs (Development Capital Centre, CAP Growth);
- 1 Consolidation Fund of € 45 M targeting SMEs and large companies (Opportunities Region).

Christophe Lerouge, President of IMT Atlantique, stressed the importance of playing with local actors to support innovation: "When it comes to innovation and economic development, it's not just about start-ups or funding. As a technical university, our role is to train students and prepare them for industry." To this extent, forging links with industrials is at the core of IMT Atlantique's DNA, allowing the development of programs aligned with industrial needs and fostering pre-competitive collaborative research throughout research contracts and industrial chairs.

"Within the European University Alliance Ulysseus, we developed local innovation hubs supporting start-up developments, in line with the specialization strategy of our regions. It strengthened the attractivity and integration of the universities within their territories."



Stéphane Ngo-Mai, Vice-President for International Cooperation, Université
 Côte d'Azur

At the European level, 1 € invested by the European Innovation Council (EIC) brings 3 € to 5 € extra funding from private actors, in particular in the frame of the EIC Transition and EIC Accelerator programs as the EIC Pathfinder focuses on de-risking innovation.

According to Gerald Cultot, acting Head of Unit "EU and Place-Based Innovation Ecosystems" at the European Innovation Council and Small and Medium-sized Enterprises Executive Agency (EISMEA), more private funding could be attracted through EIC by bringing more directionality in public fundings. To this extent, the EIC launched the EIC Scale Up Scheme STEP to stimulate investment in innovation focusing on strategic technologies for Europe.



Jekaterina Novikova, Deputy Head of Unit "Innovation Policy and Access to Finance" at the Directorate General for Research and Innovation of the European Commission (DG RTD), highlighted the challenge of the so-called "second valley of death" as a major obstacle in supporting the growth of innovative companies in Europe.

This issue primarily stems from a comparative lack of venture capital (VC) funding, especially when contrasted with the United States, where VC plays a critical role in financing innovation for both startups and large companies. "In the US market, institutional investors—including pension funds—play a vital role in channelling capital into venture investments that drive innovation," Novikova noted. "This is a funding model that Europe must further develop." Initiatives such as the Communication on Savings and Investments Union and the European Innovation Act are expected to play a pivotal role in strengthening private sector investment in innovation across the EU.

European VC Market is

6 times less important than in the US

Enhancing Europe's Competitiveness and Attractiveness in Global Innovation

The speakers also pointed out the need to strengthen European competitiveness by attracting researchers and innovators. Europe's capacity to maintain and retain talent relies on having strong and attractive place-based innovation able to bring opportunities and an innovation-friendly environment with competitive university and research organizations.

Anne Besnier pointed out the need for regions to better identify and communicate on their innovation specialization, with the related programs and research laboratories. The Smart Specialization Strategy (S3), at the core of the Regional Innovation Valley initiative (RIV), aims at supporting regions in doing so. Still, extra efforts are needed from regional authorities to better identify their specialization: "If regional specializations are visible, if research in these fields is visible, then it is easier to attract talent".

Under Horizon Europe, the European Innovation Ecosystems (EIE) actions fund bottom-up actions to support the capacity of local innovation ecosystems, building on regional assets. In line with the S3 and RIV, it has been further supported throughout calls, creating synergies with the Interregional Innovation Investment of the Cohesion Funds to support place-based innovation from regional level to European level. Such funding supports regional authorities in building programs to connect actors at local and European level.

In 2024, EISMEA launched an EIE topic focusing on industry-academy collaboration, which gathered a high application rate, stressing the appetite of innovation players for schemes supporting knowledge transfer and talent training.

The living and work environment is no less important in order to attract talents: researchers are looking for an environment that is conducive to innovation, with appropriate infrastructure and institutional support to establish themselves on a long-term basis.

Christophe Lerouge called on making academic freedom at the forefront of any attractiveness policy. If the wage is a core attractiveness criterion, universities can build an "attractiveness package": 'If an American researcher wants to come to Europe, academic freedom, access to excellent students, opportunity to supervise high-level doctoral students and integration within prestigious research programs are key assets we can promote".

Jekaterina Novikova also pointed out the necessity to implement Enrico Letta's fifth freedom for attracting and retaining talents in Europe: "we should offer a complete package that allows people to move around freely, connect to different research infrastructures, universities and facilities".

The speakers highlighted the instrumental role of European university alliances: by fostering cross-border "coopetition", bringing together knowledge and talents from European regions and by raising cross-border fundings, they can support European competitiveness.

"If European universities can share facilities, allowing individuals to work on research infrastructure that is not available at their home institution, this encourages coopetition and efficiency"

- Gerald Cultot, acting Head of Unit "EU and Place-Based Innovation Ecosystems", EISMEA

Furthermore, the speakers pointed out that such institutional frame can support the further development of start-ups by giving them access to foreign research laboratories, fostering knowledge complementarity, but also supporting market implementation beyond national borders. Two key components for further supporting entrepreneurship and innovation in Europe.

Closing remarks

By **Manuel Tunon de Lara**, Université de Bordeaux, European University Association Board Member

European Universities are playing a key role in structuring local innovation ecosystems but also are contributing to the transnational approach through different networks involving partners and different stakeholders.

Following the publication of the Draghi report, the European Commission response has been to promote competitiveness by strengthening strategic sectors and at the same time encouraging the development of new technologies.

The Competitiveness compass laid down by Ursula Von der Leyn aims at simplification, facilitating a single market, financing a savings and investing union, among others. However, this is only part of the response since the success of competitiveness is also closely linked to driving forces in research.

Regional ecosystems are an important tool, which may or may not be transnational, but European universities do have the potential of setting up transnational R&I actions through territorial innovation ecosystems.

In 2023, the Joint Research Centre (JRC) published a Science for Policy report that clearly expressed their expectations for a strong contribution of European universities to regional development and transformative innovation, considering they are actors of change in the context of the twin transitions.

As regards development and innovation policies, including smart specializations, European universities were supposed to be embedded within their innovation ecosystems and contribute across the three higher education institutions missions i.e., research, teaching and outreach/community.

However, how these initiatives translate across different education systems, different innovation ecosystems, and across different government levels with varying priorities and different higher education institutions systems is still a moot point.

Then in 2025, the report of the EC on the outcomes and transformational potential of the European Universities initiative, representing 65 European universities alliances, gathering over 570 higher education institutions of all types and sizes from 35 countries, has shown the significant potential of fully-fledged European Universities alliances, five years after its launch under Erasmus+.

One of the characteristics pointed out in the report is the development of "structured long-term multifaceted, engaged and inclusive cooperation with their over 2200 associated partners within their local ecosystems", that strengthen links between academia, business, and society.

The alliances contribute to local and regional development by offering a range of services to society, from contributing to stimulating economic activity and cohesion, civic and cultural activities, and making communities more attractive places where to live and socialize.

About 55% of the alliances involve external stakeholders in their governance structures. 70% of the alliances developed or are in the process of developing quadruple helix (industry, academia, policy and civil society) cooperation initiatives.

One important aspect is the relations between local and transnational dimensions. It can be the result of a top-down strategy and we have some good examples like hydrogen valleys.

At the local level, one can expect that universities networks, through the relationships between stakeholders and diversity of partners will also facilitate the international/transnational relations: EULiST, EuroTech, Ulysseus, among others, integrate the concept of sharing the goal of innovation.

Joining European universities forces, within European University Alliances, has also shown great impact on attractiveness for international companies, i.e., the Enlight European University Alliance

which gathered great private interest in the field of last-generation quantum computers.

The diversity of partners, connection of networks, sharing good practices but also resources and infrastructures, or inspirations from other countries are growing forces to facilitate competitiveness of Europe regions.

Still, competitiveness requires excellent science. Innovation critically depends on basic science. The experience and elements shared by private actors and regional authorities during the event showcased the need to strengthen research, and its link to private actors, and the protection of academic freedom.

Excellent basic science must remain a pillar for EU policy. R&I actors can transfer it to education, to innovation and companies but it has to remain the main pillar.