Higher Education Institutions and Entrepreneurial Ecosystems

Italian Academic Centre, Tata Innovation Centre
New York, 20-21 July 2023

HIGHILGHTS

Higher education institutions (HEIs) can play a crucial role in local entrepreneurial ecosystems by aligning their activities and actively collaborating with stakeholders, including policymakers, civil society, and businesses of all sizes and stages of development. The social dimension of entrepreneurial HEIs also holds significance, impacting skills and social capital within communities.

However, a gap persists between higher education policies and entrepreneurial agendas. This depends on the absence of metrics, the scarcity of incentives, and the lack of policy coherence, which creates uncertainty around HEIs' collaboration agendas, blurring their roles and potential in fostering entrepreneurship. Importantly, entrepreneurial HEIs while important cannot have an impact on their own ecosystem if they operate alone, isolated from other local networks and policies.

An expert meeting, organized by Federico II University of Naples and Cornell Tech, with support from the OECD EECOLE platform, brought together academics, practitioners, and private sector representatives to explore emerging entrepreneurial and innovation agendas in higher education.

The meeting emphasized the centrality of entrepreneurship in the context of digital and green transitions and inclusive regional growth. Over the course of two days, the meeting offered the opportunity to create new international linkages, discuss innovative policy approaches and discover an important component of New York City's vibrant ecosystem.

A New Vision of Entrepreneurship and Entrepreneurial Ecosystems:

Entrepreneurial HEIs are well-positioned to address the innovation needs, including societal innovation, within their communities and networks. Their interactions with stakeholders and their neutral agendas enable them to foster innovation and entrepreneurship, capitalizing on local opportunities. HEIs can shape ecosystems (Box 1) by generating new actors and organizations (start-ups, spin-offs, incubators, accelerators, entrepreneurs, etc.) and facilitating connections among them.

Because of this characteristic entrepreneurial HEIs can become catalysts for innovation, sustainability, and regional development policies.

Box 1: Entrepreneurial Ecosystems

Entrepreneurial Ecosystem Definition: An entrepreneurial ecosystem refers to a dynamic and interconnected network of individuals, organizations, institutions, and resources within a specific geographic region or community. This ecosystem is characterized by its capacity to foster individuals' propensity to entrepreneurship and innovation. The ecosystem is also conducive to economic growth as it facilitates the creation, scaling, and sustainability of businesses.

Key elements of an entrepreneurial ecosystem typically include:

1. **Entrepreneurs:** Individuals with innovative ideas and the drive to create and grow businesses.
2. **Startups and SMEs:** Emerging and small to medium-sized enterprises that are innovative and growth-oriented.
3. **Support Organizations:** Incubators, accelerators, co-working spaces, and business development agencies that provide resources, mentorship, and guidance to entrepreneurs and startups.
4. **Educational Institutions:** Universities, colleges, and vocational schools that contribute to the development of entrepreneurial skills and knowledge.
5. **Research and Innovation Centres:** Institutions focused on generating cutting-edge research and technology that can be commercialised.
6. **Access to Funding:** Availability of venture capital, angel investors, grants, and other financial resources to support and select entrepreneurial endeavours.
7. **Policy Environment:** A conducive regulatory and policy framework that encourages entrepreneurship and innovation.
8. **Market Opportunities:** Access to local and global markets where startups can test, launch, and scale their products or services.
9. **Culture of Innovation:** A culture that values risk-taking, creativity, and learning from failure, and embraces entrepreneurship as a viable career choice.

An effective entrepreneurial ecosystem thrives when these components interact, collaborate, and reinforce one another. It is not limited to specific sectors or industries and adapts to evolving economic and technological trends. The goal of such an ecosystem is to create an environment where entrepreneurship can flourish, leading to job creation, economic growth, and enhanced competitiveness on both regional and global scales.

Sessions and Main Takeaways:

The expert meeting comprised three roundtables:

First Roundtable: Deeptech and Connecting Research to Entrepreneurship

The primary focus of the first roundtable was to discuss strategies for bridging the gap between deeptech, which encompasses knowledge-intensive sectors and activities, and entrepreneurship within specific regions or places. The discussions revolved around several key themes:

1. **Transdisciplinary Skills**. The roundtable emphasized the importance of training individuals with transdisciplinary skills. This involves combining expertise in deeptech fields with entrepreneurial capabilities, fostering the ability to blend knowledge from various domains to create innovative solutions.

2. **Digital Transition**. Given the significance of digital technologies in deeptech activities and sectors, there was a particular emphasis on the challenges and opportunities presented by the digital transition. This includes considerations related to skill development, evolving business models, and adapting policies to this new digital landscape.

3. **Entrepreneurial Ecosystems**. Participants recognized the need to establish vibrant entrepreneurial ecosystems. These ecosystems involve creating a coherent culture and metrics that specifically support deeptech sectors. Additionally, it was acknowledged that innovation policies should be implemented coherently ("harmonic innovation" was explicitly mentioned) at both central and subnational levels, considering on the one hand the importance of generating standards and policy targets and on the other hand the spatial characteristics of deeptech, such as the location of firms and talent.

4. **Intermediation and Collaboration**. The discussion highlighted the role of innovation intermediaries, such as incubators, accelerators, competence centres and digital hubs, and how these entities provide opportunities for collaboration with higher education institutions (HEIs). Intermediaries have become key facilitators for HEIs to engage in entrepreneurial activities. Intermediaries are key components of entrepreneurial ecosystems and need to connect and operate in a systemic way, to avoid fragmentations.

5. **Example in the United States.** The roundtable cited the United States as an example, mentioning initiatives like the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programmes, which invest over USD 3 billion annually to support innovation in small and medium-sized enterprises (SMEs). These federal policies are implemented locally through different institutions and entities, operating at the community level. The session also spotlighted the Runway Program at Cornell Tech as an illustrative case, which has led to the creation of numerous ventures, enhancing New York's entrepreneurial ecosystem's global competitiveness.

6. **International examples:** Latin America and Asia.

Second Roundtable: Sustainability - Green Innovation and Inclusion

The second roundtable placed its focus on sustainability and ways to engage entrepreneurs in addressing sustainability challenges. Key topics discussed in this roundtable included:

1. **Societal Impact**. The roundtable emphasized the importance of societal impact as a driving force for collaboration and innovation in entrepreneurial universities. It underscored the role of organizations that promote entrepreneurship to tackle inclusion and green transition challenges.

2. **Examples of the nexus between entrepreneurship and social impact.** The roundtable discussed several practices connecting entrepreneurship with social dimensions.

- Programs for Underprivileged Individuals. Within the context of New York's ecosystem, there were references to programmes provided by public HEIs that empower underprivileged students and individuals. These initiatives, such as those offered by the City University of New York (CUNY) network, have positively impacted thousands of individuals, and are fundamental to promote social inclusion in communities. Entrepreneurship education is nested in business schools but it more impactful in other networks and programmes.

- Supporting purpose-driven entrepreneurs. The discussion highlighted platforms like "Active" (www.active.org) in New York, which facilitate connections between scientists and a wide network of business executives, investors, entrepreneurs, and experts. Such platforms provide aspiring entrepreneurs with resources, mentorship, education, and community support.

- Montreal's Sustainability Initiatives. The roundtable discussed how the Montreal ecosystem is mobilized to connect entrepreneurship and environmental sustainability. HEIs in Montreal generate data and metrics and receive support from the provincial network of accelerators and incubators to promote entrepreneurship in the green economy.

3. **Challenges in Assessment and Metrics**. Societal impact, because its eclectic nature, challenges traditional assessment frameworks. The roundtable called for the development of new sustainability metrics to provide a more accurate evaluation of entrepreneurship aiming to societal impact. This includes addressing distortions in performance assessments and addressing greenwashing concerns associated with the use of ESG (Environmental, Social, and Governance) indicators and SDGs (Sustainable Development Goals) targets.

4. **Long-Term Perspective**. The need to shift from a focus on metrics to a theory of change with a longer-term perspective was emphasized. This approach involves engaging multiple stakeholders in sustainable transitions, overcoming administrative and structural constraints within local contexts.

Third Roundtable: Territorial Development and Regional Ecosystems:

The third roundtable explored the connection between entrepreneurial ecosystems, sustainability, and regional development. The aim was to connect entrepreneurship and places. Here is a comprehensive summary of key points discussed:

1. **Providing SMEs tailored support**. The roundtable illustrated the tailored support, including mentoring, that the Small Business Development Centre (SBDC) Massachusetts provides to SMEs and entrepreneurs. The specific SBDC that participated in the roundtable is embedded in the Massachusetts University and leverages academic services and research capabilities of the university to empower SMEs and entrepreneurs. The SBDC example emphasised the importance of a tailored support to SMEs and entrepreneurs that involves diverse stakeholders, including entrepreneurs, scientists, and business coaches.

2. **Intermediaries of innovation and places**. The roundtable recognized initiatives like start-up incubation or acceleration as vital bridges between universities and entrepreneurial

ecosystems. Entrepreneurial HEIs cannot operate in isolation to promote innovation and growth. Entities such as incubators, accelerators, research and technology organisations (RTOs) can become hubs within entrepreneurial ecosystems. However, it is important to connect these different entities and avoid the centrifugal forces at play among different disciplines, sectors and localities. Scaling innovative solutions at the right territorial scale is also important. Communities need to recognise themselves as component of the entrepreneurial ecosystem and generate trust and social capital to facilitate endeavours and policies.

3. **Link between supra-national and local policies: the EIT example.** To cope with the digital transition, European policy actions – such as those put in place by the European Institute of Technology – are favouring the creation of new networks and areas of expertise that are essential to industrial innovation. Importantly, these supra-national policies have increasingly a spatial focus. For instance, the Learning Factories are special manufacturing facilities for training and research that belong to higher education institutions, in places. Learning Factories help communities of firms and entrepreneurs by showcasing technological solutions and offering continuous training, research, and knowledge creation and diffusion.

4. **Global Examples of Entrepreneurial Ecosystems and Regional Development.**

    - Switzerland's example was highlighted, specifically in Crans-Montana. This case illustrated successful business development within local entrepreneur networks. Crans-Montana, typically known as a tourist resort, was emphasized as a key economic hub within the region. It draws on collaborations with local schools and international educational institutions in the technological sector, showcasing the importance of international influence for local development.

    - Challenges in university-industry collaborations, particularly in Chicago, were noted, with lack of trust at the local level identified as a key issue along with the need of identifying the right territorial scale in which promoting and implementing policies actions.

    - The discussion also touched upon cultural heritage valorisation efforts in the South of Italy, highlighting the role of HEIs in leveraging regional cultural assets.

    - The importance of entrepreneurial universities in post-Brexit Britain was highlighted, with a focus on reconnecting communities and providing innovation services.

    - In Africa, it was emphasized that innovation should align with the specific needs and opportunities of local communities and businesses. In many African countries and regions, the importance of ensuring that innovation meets the needs and opportunities of local communities and businesses was underscored.

5. **The New York City Economic Development Corporation (NYCEDC).** In New York City the NYCEDC actively supports knowledge-intense industries through public-private partnerships. It plays a central role in enhancing the local entrepreneurial ecosystem by creating co-working spaces, fostering industry clusters, mobilizing funds (e.g., USD 1 billion for the health cluster), and facilitating academic collaborations with institutions like Cornell University. This collaboration originated Cornell Tech, for instance. NYCEDC is a crucial organization dedicated

to boosting economic development, with a particular emphasis on the technology industry. Its initiatives support innovation, job growth, and collaboration among various stakeholders, making it a central player in enhancing New York City's entrepreneurial ecosystem and technological advancement.

6. **Policy Experimentation, in places.** Entrepreneurship ecosystems were recognized as spaces for experimenting with new policy solutions to ensure that knowledge creation is closely aligned with real community needs. The importance of adapting policies to suit the specific challenges and opportunities within each region was emphasized as well as the importance of generating policy complementarities between different agendas related to regional development, employment, and sustainability.

Annex A. The final agenda of the workshop

20 July	14:00-14:30	Opening • Marta Mammana Consulate General of Italy in New York • Mita Marra, Federico II University • Fernando Gomez Baquero, Cornell Tech • Raffaele Trapasso, OECD EECOLE
	14:30-17:30 15-minute Coffee break	First roundtable **Deeptech – connecting research and innovation through entrepreneurship and leveraging communities and networks to achieve growth.** The session will discuss practices to connect science with entrepreneurship, in places. It will illustrate the need to train new skills profiles that are able to operate transdisciplinary, mixing competences in deeptech with entrepreneurial capabilities and generating knowledge spillovers in their own communities. Chair: Fernando Gomez Baquero, Cornell Tech *First panel* - Pietro Carratù, Ubiquo, Italy - Sujai Shivakumar, Centre for Strategic and International Studies, United States - Peter A. Creticos, Institute for Work and Economy, United States Q&A Session *Second panel* - Giulia Ajmone Marsan, ERIA - Raffaele del Monaco, Entopan, Italy - Juan Carlos Navarro, EECOLE, Former IADB, United States - Michael Wong, Senior Policy Advisor, United States Senate, United States Q&A Session
	17:30-18:00	Wrap up
21 July	9:30 – 12:30	Second roundtable **Sustainability – promoting green innovation and inclusion and generating an evaluation framework for impact**. Purpose-driven

	15-minute Coffee break	entrepreneurship can generate societal value and innovation that is sustainable and responsible. Improving evaluation framework is a way to mainstream access to entrepreneurship education and to connect it with other policy agendas. Chair: Mita Marra, Federico II University of Naples *First panel* - Heath Brown, CUNY, United States - Andrew Chang, Activate New York, United States - Maria Cortés Puch, SDSN - Yan Kestens, University of Montreal, Canada - Veronica Olazabal, BHP Foundation, American Evaluation Association and Columbia University, United States Q&A Session *Second panel* - Roger Heijmans, E³UDRES² | Hogeschool UCLL, Belgium - Lelio Iapadre, University of L'Aquila, Italy - Edna Primrose, Differenza, United States Q&A Session
	Lunch break	
	14:00-17:30 15-minute coffee break	Third roundtable **Territorial development – generating actors and connections in a regional ecosystem to promote entrepreneurship and innovation**. Entrepreneurial institutions can play an important role generate new actors, including firms, and connect them to create mutual synergies. Place-responsive entrepreneurial HEIs can generate social capital and specialized innovation services, including for local SMEs. Chair: Raffaele Trapasso, OECD EECOLE *First panel* - Mahamadou Biga Diambeidou, Catholic University of Louvain - Vincenzo Pascale, Long Island University (Brooklyn Campus - Honors College), NGO Migrantes, The United Nations - Daria Siegel, New York City Economic Development Corporation, United States - Cliff Paredes, SBDC Massachusetts, United States Q&A Session *Second panel* - Paola Fantini, EIT Manufacturing - Greg Burke, Civic University Network/National Civic Impact Accelerator, United Kingdom - Rafal Hys, Crans Montana, Switzerland - Charles Wessner, Georgetown University, United States Q&A Session
	17:30-18:00	Wrap up and next steps

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