

The Geography of
Higher Education



Higher Education Institutions and the Pandemic

Key Lessons from the Geography of Higher
Education Webinar Series



Higher education institutions and the pandemic: Key lessons from the geography of the higher education webinar series

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This paper presents some key messages from the Geography of Higher Education (GoHE) webinars, organised jointly by the OECD and the Economic Research Institute for ASEAN and East Asia (ERIA). These events offered representatives from higher education institutions (HEIs), practitioners and experts the occasion to discuss practices and actions that HEIs have put in place to contribute to the post-pandemic recovery.

Introduction

Higher education institutions (HEIs) around the world have been heavily affected by the COVID-19 pandemic and the public health measures imposing social distancing and travel restrictions. The effects have been both immediate, such as the need to transition millions of students to online learning, to more medium-term challenges, such as the increase in the number of students entering higher education as a result of less stringent secondary education exams (Gallagher; Palmer, 2020^[1]; Adams; Weale; Pidd, 2020^[2]). Like in other sectors, some of the rapidly adopted changes in HEIs may transform into long-term trends.

HEIs' role has been central not only during the immediate response phase following the the pandemic; these institutions have also been pivotal during the recovery phase. HEIs have shown leadership through the development of knowledge and research on epidemics, vaccines and medical treatments. They have made key contributions to understanding the economic and societal consequences of the pandemic, including gathering new data sources.

During the ongoing recovery phase of the pandemic, HEIs have been important providers of skills and innovation. In fact, the COVID-19 pandemic is accelerating the trend towards digital economies and societies. As a consequence, the need for digital skills is accelerating even more. The pandemic has also exposed the need to equip students with competences to cope with complexity, adopt problem-solving abilities, and combine inter-disciplinary knowledge. In other words, to adopt an entrepreneurial mind-set.

Throughout the past year, HEIs based in OECD and emerging-market economies have undertaken knowledge exchange more innovatively than before working more closely with actors in their local communities such as citizens, civil society business and public institutions, as well as contributing to global research projects as well. For example, in the ASEAN region, several universities have partnered with digital champions in the private sectors and multinational enterprises to train SMEs, and move to e-commerce. In particular, the University of Indonesia has partnered with the Coca-Cola Company and consultancy firms to provide online training to food stalls and small retail shops in Indonesia that have been particularly hit by the pandemic (The Jakarta Post, 2020^[3]). Some HEIs have also adopted a more social role for the community to develop activities and provide comfort to students and citizens during lock-downs. From sports activities, online tutorials, surveys to understand changing behaviours and needs as a way to promote well-being amongst students, staff and the community, HEIs have swiftly stepped in and provided support to their communities.

Overcoming the challenge of a sustainable post-pandemic recovery will require that HEIs to rethink the way they operate, innovate and define new strategies for the future.

This paper presents key messages from the Geography of Higher Education (GoHE) webinars organised jointly by the OECD and the Economic Research Institute for ASEAN and East Asia (ERIA). These events offered representatives from higher education institutions (HEIs), practitioners and experts the occasion to discuss practices and actions that HEIs have put in place to contribute to the post-pandemic recovery. The four key message below expand on the theme that HEIs should continue to collaborate with their surrounding communities and networks, in order to support knowledge exchange throughout the post-pandemic recovery phase, It provides case studies and reflections that policy makers and HEIs can use in developing their own knowledge exchange approach.

Box 1. The GoHE policy dialogues

Between April and June 2020, the OECD and the Economic Research Institute for ASEAN and East Asia (ERIA) organised policy dialogues on the theme of the “Geography of Higher Education” (GoHE). Following a first in-person experts workshop (“An ecosystem approach to Knowledge exchange and Collaboration”) organised on February 2020 at the OECD headquarters Paris, the remainder of the discussions were organised online. The COVID-19 crisis shaped the substance of the discussions, exploring how HEIs could contribute to the post-pandemic recovery, extending the possibility for a wider global dialogue. Themes included HEIs and the COVID-19 pandemic; linkages between HEIs and the business sector; skills development and training on the job; 2030 Agenda and the Sustainable Development Goals; the civic university; and policy complementarities. The detailed description of each policy dialogue and guest speakers can be found in Annex 1.A.

Key message 1: Effective knowledge exchange requires HEIs to engage with their surrounding communities and networks, especially in the recovery phase.

Universities and other public research organisations have a strong local impact on innovation outputs, given their importance in providing human capital, creativity and other skills (OECD, 2020^[4]). While estimating knowledge spillovers in urban countries, Kantor and Whalley (2014^[5]) conclude that “university activity generates persistent spillovers to local firms and workers”. A HEIs’ geographical proximity to businesses and enterprises may then be conducive to increased knowledge transfer. In fact, evidence illustrates that a 10% increase in distance between a university and a firm, decreases the proportion of total R&D paid to a university by 1.4 percent for enterprises that do not report any codified transfer of knowledge flow, and by half as much for enterprises that report codified knowledge flows (Rosa and Monhen, 2008^[6]). This can bring forth opportunities for HEIs re-position themselves within their networks and communities.

HEIs are also a reservoir of capabilities and technical skills and academic research that can support activities in the ecosystem. These institutions are amongst the larger employers in cities and regions, with contracted staff and students, and international visitors who populate, live and spend money in a given location (Goddard, 2019^[7]).

The disruptive nature of the pandemic has given more relevance to HEIs within regions. HEIs have added impetus to work with authorities in developing “placed-based policies”, meaning policies that reflect the needs of the regions. Such an approach has also been taken by universities across the globe as part of the response to COVID-19. For instance, as discussed in the webinars, the University of Bologna is currently participating in a regional task force to provide practical support to the local community. Similarly, in the Netherlands, scientists from Leiden University, Leiden University Medical Center, Erasmus MC, Amsterdam UMC, UMC Utrecht, UMC Groningen and Radboudumc are members of the Outbreak Management Team (OMT) lead a team of experts as they advise the government on ways to combat the virus (Vsnu, 2020^[8]). Box 2 illustrates other notable examples across OECD countries and beyond.

Box 2. Examples of HEIs in the response phase of the COVID-19 pandemic

The United States

According to the Association of Public Land-Grant Universities¹, several universities in the United States have made their facilities available to public needs, with students and medical workers being offered access to dormitories to self-quarantine, and other rooms available as collaborative workspace for the production of medical equipment (“makers-space”). Likewise, the OSU Veterinary Diagnostic Lab at Oregon State University collected supplies and personal protection equipment to donate to hospital personnel. Lastly, MBA students in the U.S. have launched the “Small Business School Challenge”, helping business through the pandemic.

Costa Rica

Clodomiro Picado Institute of the University of Costa Rica has been developing a serum to fight COVID-19. In addition, the Clodomiro Picado Institute is in the process of purifying blood plasma of patients recovered from the virus to generate a cure for the disease.

France

In France, medical students volunteered to work in local hospitals to assist with the treatment of COVID-19 patients and support hospital workers cope with the high amount of patients in intensive care.

Sources: (Oregon State University, 2020_[9]); (Oldaker, 2020_[10]); (OECD, 2020_[11]); (Chahuneau, 2020_[12]);

In order to develop place-responsive policies with local and regional governments, HEIs should enhance their engagement with their surrounding communities and networks. In fact, the COVID-19 pandemic has demonstrated that HEIs are most successful at engagement with their ecosystem when they optimise their potential, rather than adopting a predefined model of success. They have to be place-responsive. Due to the unprecedented and fast-paced progression of the pandemic, the HEIs’ role was not guided and HEIs shaped their responses based on the needs of regions and communities and on what they, on an institutional level, were able to provide.

Even then most established institutions were pushed to adopt new ways of working, often driven by local and regional needs. This includes factors such as national restrictive measures, regional levels of COVID-19 infections and specifics of the economy of their ecosystem.

Due to their heterogeneity, every institution found a successful response through different means, even those in close geographical proximity. For example, the University of Oxford and Oxford Brookes University, provided different contributions to the COVID-19 response, despite their campuses being located only a mile apart. Indeed, the University of Oxford has been a key player in the development of vaccine for COVID-19, collaborating with a global network of researchers, and drawing on a long tradition of biomedical and curiosity-driven research. Whereas, Oxford Brookes, which was awarded university status in 1992, is specialised in professional and technical qualifications. Its response to COVID-19 aimed at supporting the businesses of the Thames Valley, including organising 1-to-1 mentoring sessions and a series of free webinars to support entrepreneurs in adapting their business plans and adopt digital practices (Oxford Bookes University, 2020_[13]). Both the University of Oxford and Oxford Brookes are responding to the needs of their ecosystems, including particular needs of the actors in geographical proximity. However,

¹ This information was collected during the discussions of the webinar.

how each institution undertook the work in supporting the fight against COVID-19 drew on their own strengths and expertise.

Identifying how to optimise a HEI's position within an ecosystem is much easier said than done. It can be far too easy to fall back on the status quo or a checklist of proven activities. This is often the case when the problems are long-term and complex, such as supporting economic renewal. The key to successfully determining how to maximise HEIs strengths for their ecosystem is an open and transparent dialogue with the various actors concerned (OECD, 2020^[14]). A notable example is the Academy of Smart Specialisation within Karlstad University in the Värmland region of Sweden. Smart specialisation has been transformational in Värmland by promoting new specialisations and skills in a variety of sectors, such as the forest-based bioeconomy, ICT and care, smart industry and tourism, among others, in which Karlstad specialises (OECD, 2020^[14]). The experiences illustrates the capability of the region to capitalise on existing strengths of the HEI and generate new knowledge networks. Bringing clear priorities into the regional agenda has facilitated the allocation of available resources (OECD, 2020^[15]).

Basing their engagement with their ecosystem on the strengths of the institution empowers the institution's leadership and faculty as it recognises that HEIs are not passive actors in their innovation systems hindered by policy constraints. They can choose how they react to various circumstances. HEIs should also focus their efforts on a limited set of policy actions that are coordinated amongst different actors.

Key Message 2: Effective knowledge exchange requires leveraging teaching and research to engage with the whole ecosystem.

There is an overall consensus on the connectivity and complementarity of HEIs' mission for teaching, research and engagement. (Goddard, 2009^[16]; OECD, 2007^[17]). What it is often labelled as "Third Mission" is about enhancing the impact of teaching and research through engagement with their ecosystem. For instance, a recent OECD analysis finds that founders of innovative start-ups with a higher level of education receive more funding and have a lower probability of ceasing operations (OECD, 2020^[18])

While it is widely recognised that knowledge exchange between HEIs and external stakeholders goes beyond the creation of spin-offs and university-business collaborations, further research (Kerr; Robert-Nicoud, 2020^[19]) illustrates how connections between higher education, research, innovation and knowledge exchange are well-established and fundamental for knowledge sharing and innovation flows.

COVID-19 has highlighted the importance of a much broader definition of engagement activities between HEIs and their ecosystems. In 2020, basic research has underpinned knowledge exchange to better understand the COVID-19 virus, and develop potential treatments and vaccines. This went beyond traditional technology transfer, highlighting HEIs' role as key partners in the COVID-19 response. Box 3 illustrates the example of universities leveraging their research supporting the fight against the pandemic.

Firms present within an innovation system are not necessarily located in close geographical proximity to HEIs. Knowledge transfer can also take shape in terms of talent/human capital. Traditionally, the skills acquired by students within HEIs can contribute to the "knowledge transfer" between academia and firms and other type of employers. When entering the workforce in the business sector and other areas of the economy, younger generations can effectively provide skills and competences that support the economy. Business also cooperates with HEIs to identify and attract talent. Nevertheless, this is not the only way in which talent moves from higher education to firms.

For instance, the Runaway master programme at Cornell Tech, in New York, US is a well-known master programme where selected students develop their own start-up company as the main outcome of the programme. Students receive entrepreneurship training, mentoring support, access to venture capital

financing and other key stakeholders of the New York entrepreneurial eco-system during the programme (Cornell Tech University, 2020_[20]).

Box 3. Leveraging university research in support of the fight against COVID-19

Coronavirus Centre, Johns Hopkins University (United States/Italy)

The Coronavirus Resource Centre at John Hopkins University gathers real time data on global coronavirus cases, with tracking and detection tools developed by the Yonsei University in Korea or the Oxford University COVID-19 Government Response Tracker. The centre assembles information on the latest policy responses and also compiles free and accessible datasets that can be used by other researchers. These examples try to respond to the need of a research “supply chain”, which generates information and innovation at a faster pace to fight a global emergency.

Centre for Population Health Research (CPHR), University of Montana (United States)

Researchers at the Centre for Population Health Research (CPHR) at the University of Montana are developing COVID-19 disease projection models for Montana counties and hospital regions. These projections are essential planning tools as the state and local public health leaders develop strategies based on these data. CPHR also cooperates with the Missoula City-County Health Department to develop a local epidemiological profile of the COVID-19 outbreak. This data will be useful to inform long-term planning for ongoing local COVID-19 responses and recovery plans.

University of Helsinki (Finland)

Researchers at the University of Helsinki are developing new diagnostics against COVID-19. This includes: identifying antibodies to prevent and treat the disease; investigating opportunities in drug treatment and developing tests. The study is based on the University’s expertise in virology as well as the study of infections.

Sources: (Johns Hopkins University, 2020_[21]) ; (Center for Population Health Research, 2020_[22]) ; (Naskali, 2020_[23])

The pandemic has revealed how imperative it is for HEIs to be flexible and supportive of entrepreneurial mind-sets in all their activities in order to generate interdisciplinary platforms serving all missions (teaching, research, knowledge exchange, etc.) and engage in more multidimensional and cross-sectoral research.

Key Message 3: Policy- makers should leverage connection among policies to maximise the role of HEIs in post-pandemic recovery.

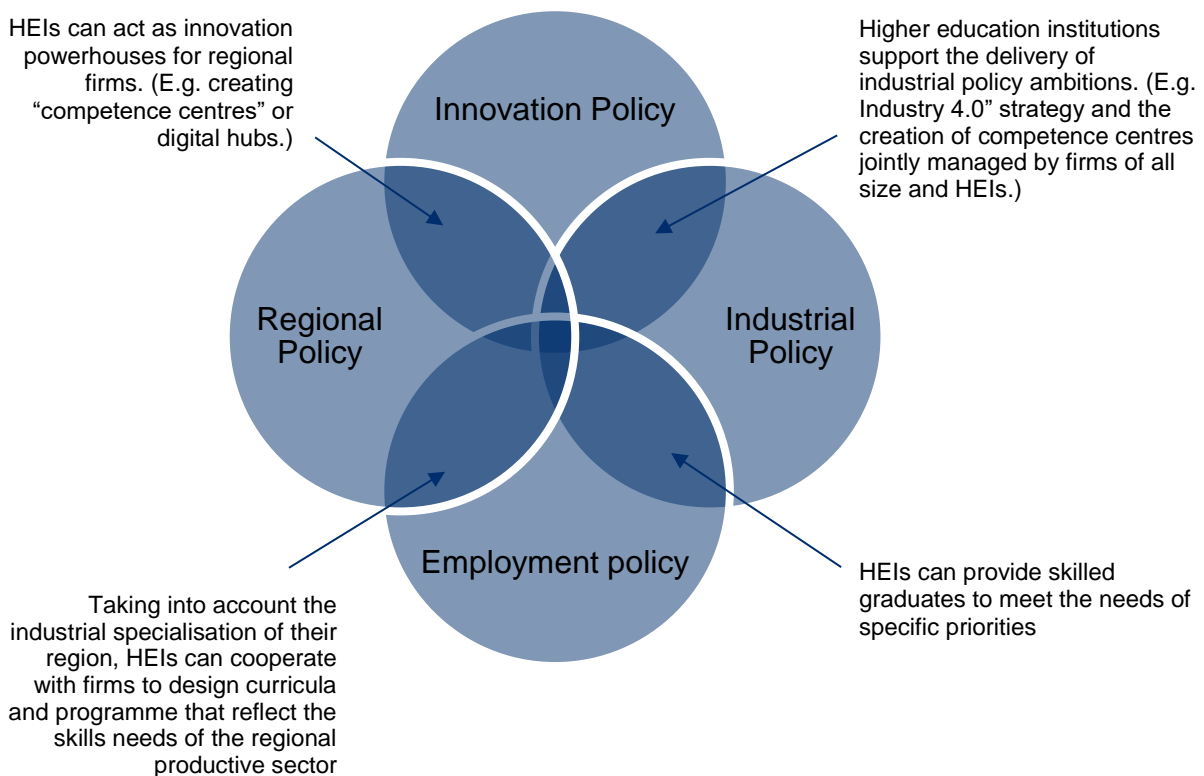
The COVID-19 pandemic has generated the conditions for higher education policy to strengthen its connections with other policy areas. Due to the exceptional conditions brought on by the pandemic, academic communities have extended beyond tradition to generate interdisciplinary research platforms, connecting basic and applied research.

The pandemic has also shed light on the need to integrate higher education policy within broader policy bundles to generate more value with less resources. HEIs, in particular, are well placed to generate “backward and forward linkages” – or policy complementarities with their ecosystems and networks through different policy sectors, including health policy, regional development, industrial policy, FDI and immigration policies.

The concept of policy complementarity refers to the mutual reinforcement of the impact of different actions on a given policy outcome (OECD, 2019^[24]). Policies can be complementary because they support the achievement of a given common target from different angles. For example, production development, innovation and trade policies all support the competitiveness of national or regional firms. Alternatively, a policy in one domain can reinforce the impact of a policy in another domain. Similarly, innovation policy can positively affect higher education policy, by expanding the demand for certain types of skilled jobs in the labour market. Policy-makers should take into account these policy complementarities in the design and implementation of reforms, to avoid poor performance of policies and optimise the use of scarce resources.

Policy complementarities become evident when dealing with higher education. Figure 1 illustrates some examples of linkages that should be taken into account when promoting higher education policy, in a given country or region.

Figure 1. An example of policy complementarities in higher education I&E activities



Despite their relevance, it often proves difficult for higher education systems and institutions to generate and promote such synergies. This is in part linked to the fact that in some OECD countries, the level of autonomy from the government towards HEIs varies. While institutional autonomy provides many benefits to higher education systems, including allowing for academic freedom and innovation, it limits the ability of governments to decide how HEIs will act and prioritise their research and teaching (OECD, 2007^[17]). Also for this reason, there is no higher-education ‘test’ within national ex-ante regulations and there are limited examples of governments connecting HEIs with adjacent policy domains.

Different narratives and understandings of the objectives of collaboration may challenge the dialogue between HEIs and the business sector. For example, university professors consider the collaboration with

a company as a source of (additional) research funds and, in some cases, additional work with limited immediate career rewards. Conversely, the main objective of companies is to identify and capture talent. In the same vein, HEIs (and in particular research universities) consider that their role is not to become a provider of central services for SMEs. However, initiatives related to Industry 4.0 illustrate the potential of all these different forms of collaboration – competence centres and digital hubs – to improve the knowledge content of SMEs and other type of firms (OECD, 2017^[25]). In Italy, for instance, the Ministry for Economic Development (MiSE) has developed a national plan for “Industry 4.0”. The plan connects with initiatives such as the National Technological Clusters and competency centres, which Italian stakeholders consider positively in terms of their capacity to promote entrepreneurial education and start-ups (OECD/European Union, 2019^[26]). Because of diverging views, successful and sustainable collaborations are relatively rare compared to the system potential. Going forward, and in the context of the post-pandemic recovery, it will be important to favour policy complementarities and synergies both at the system and institutional levels.

As said above, policy complementarities range in different domains including regional development, internationalisation and sustainability. Entrepreneurial and innovative HEIs have an important role in contributing to the re-generation of local economies, once the pandemic is under control. They could provide policy-makers with granular information about investment opportunities and inform investment plans with social and environmental sustainability actions. While these problems of coordination are well-known, going forward it will be important to find a solution at the system and institutional levels, to connect HEIs and higher education policy to the challenges emerging from the recovery phase of the COVID-19 crisis.

Key message 4: Higher education institutions should promote sustainability and inclusion to support resilience

Promoting sustainable and inclusive development is particularly relevant in the context of the COVID-19 pandemic, as governments and stakeholders are implementing post-pandemic strategies aiming for a greener and more sustainable recovery (OECD, 2020^[27]). For instance, in June and July 2020, 31% of EU subnational governments, indicated that they will provide public investment stimulus measures, with more than two-thirds of regional and municipal respondents stating that the transition to a sustainable and low-carbon economy should largely shape long-term regional development policies (OECD, 2020^[28]; OECD, 2020^[29]).

Together with other regional actors of innovation ecosystems, higher education institutions bear the responsibility of promoting sustainability and social inclusion. As education and research are explicitly mentioned in the 2030 agenda (e.g. SDG 4: quality education), HEIs hold a direct role in regards to advancing progress towards Sustainable Development Goals (SDGs). HEIs have often been early adopters of SDGs, which have inspired their strategic documents, missions and initiatives. For example, through the Higher Education Sustainability Initiative (HESI) partnership, 272 institutions from over 40 countries worldwide are committed to promoting development through both research and teaching, disseminating new knowledge and insight to their students while building their capabilities (UN, 2020^[30]). Other networks and initiatives of universities addressing the 2030 Agenda are emerging, such as the Sustainable Development Solutions Network, Higher Education Sustainability Initiative and Principles of Responsible Management Education initiative. The Australia, New Zealand & Pacific Network of the Sustainable Development Solutions Network (SDSN) has also produced a guide on how universities can contribute to the SDGs (OECD, 2020^[31]).

HEIs can support governments at all levels by generating and disseminating knowledge, contributing to the implementation, monitoring and evaluation of policies and strategies (OECD, 2020^[31]). According to a

recent survey for local and regional authorities' contributions to the SDGs, it was found that 31% of respondents cooperate with universities (OECD, 2020^[31]). This cooperation is particularly relevant in non-metropolitan and rural areas, where HEIs can play a key role in providing further resources to local authorities (OECD, 2020^[31]). In Sweden, for instance, HEIs have been systematically collaborating with local communities to promote sustainable and inclusive development (note that the two dimensions are considered to be two faces of the same coin in the national context) (OECD, 2020^[15]). The presence of HEIs that are readily available to collaborate with local communities, facilitates the implementation of national policies for sustainability and inclusion, and broadens the scope of policy actions that communities are able to adopt. This adds value by enhancing capabilities for ex-ante evaluation and monitoring (OECD, 2020^[15])

Box 4. The Italian Alliance for Sustainable Development (ASVIS)

Launched by the University of Rome “Tor Vergata” and the Unipolis Foundation, the Italian Alliance for Sustainable Development provides an example of bringing international expertise into a local context. ASVIS was created in 2016 with the aim of working with business associations, research centres and foundations to create awareness on the Agenda 2030 in Italy, develop a culture of sustainability and contribute to the definition of an Italian strategy for the implementation of Sustainable Development Goals (SDGs). ASVIS has international partners such as SDG Watch Europe is part of the United Nations Partnerships for SDGs platforms.

Source: (ASVIS, 2020^[32])

HEIs can support sustainable development by demonstrating the entrepreneurial and innovative behaviours discussed above. For instance, HEIs can promote new businesses that improve the performance of the industry in which they operate. In general, start-ups are more successful in finding suitable business models for new technologies in dynamic environments (Chesbrough, 2010^[33]). Start-ups are naturally prone to innovative and creative solutions and have a distinct ability to overcome functional fixedness and flexibility to find innovative and creative solutions (Cardon and Stevens, 2004^[34]; Ruef, 2003^[35]).

The way in which HEIs exchange knowledge and engage with the surrounding ecosystem should reach beyond technology and R&D-based collaborations and should be more broadly defined to include collaborations and exchanges that promote the sustainable agenda.

The way forward

The COVID-19 pandemic has presented a paradox. On the one hand, the pandemic has caused nearly 2.3 million deaths (as of February 2021) (Johns Hopkins University, 2021^[36]). On the other hand, it presented new opportunities, such as enhancing HEIs' role within their communities. As a response to the pandemic, many governments are mobilising considerable resources through stimulus packages in an effort to re-launch economies and societies, highlighting the involvement of the various actors within the national contexts. Universities, colleges and other HE institutions have the possibility to assert themselves within their ecosystems. The European Commission (EC) is implementing the “Next Generation EU” recovery plan, mobilising 1.8 trillion EUR in the effort to build a greener, resilient and more digital Europe².

² For more information, please visit: https://ec.europa.eu/info/strategy/recovery-plan-europe_en

One of the main elements of the package is focused on “research and innovation”. Similarly, the Argentinian government created a USD 453 million guarantee fund for SMEs (OECD, 2020^[37]).

Going forward, HEIs have an ambitious yet important mission. HEIs should act quickly pace to create linkages between businesses, government and civil society, promoting deeper knowledge exchange, understanding of the challenges and how to overcome them. Through these means, a more effective system of knowledge exchange and collaboration between universities and enterprises, as well as a more intense and informed dialogue between universities and the civil society at large would be essential to promote the competitiveness of SMEs. This could help to improve the quality of policies and their impact on societal challenges and on the country’s economic growth and societal progress.

Regional and local governments can invest in HEIs as actors of change to spur local innovation ecosystems, and work alongside them to build back better in the recovery phase of the COVID-19 pandemic. Universities, colleges and higher technical institutions can be the catalysts of a more inclusive and sustainable recovery.

References

- Adams; Weale; Pidd (2020), *Covid: three universities halt face-to-face teaching as UK strategy unravels* | Education | The Guardian, <https://www.theguardian.com/education/2020/oct/06/covid-three-universities-halt-face-to-face-teaching-as-uk-strategy-unravels> (accessed on 1 February 2021). [2]
- ASVIS (2020), *ASVIS 2020: L'Italia e gli Obiettivi di Sviluppo Sostenibile*, https://asvis.it/public/asvis2/files/Rapporto_ASviS/Rapporto_ASviS_2020/Report_ASviS_2020_FINAL8ott.pdf (accessed on 21 January 2021). [32]
- Calvino, F., C. Criscuolo and C. Menon (2015), "Cross-country evidence on start-up dynamics", *OECD Science, Technology and Industry Working Papers*, No. 2015/6, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5jrxtkb9mxtb-en>. [43]
- Cardon, M. and C. Stevens (2004), "Managing human resources in small organizations: What do we know?", *Human Resource Management Review*, Vol. 14/3, pp. 295-323, <http://dx.doi.org/10.1016/j.hrmr.2004.06.001>. [34]
- Center for Population Health Research (2020), *COVID-19 Support - Center for Population Health Research - University Of Montana*, http://health.umt.edu/cphr/story-pages/covid_story.php (accessed on 1 February 2021). [22]
- Chahuneau (2020), *Coronavirus : étudiants en médecine, ils se portent volontaires pour aider dans les hôpitaux - Le Parisien*, <https://www.leparisien.fr/societe/coronavirus-etudiants-en-medecine-ils-se-portent-volontaires-pour-aider-dans-les-hopitaux-23-03-2020-8286096.php> (accessed on 1 February 2021). [12]
- Chesbrough, H. (2010), "Business model innovation: Opportunities and barriers", *Long Range Planning*, Vol. 43/2-3, pp. 354-363, <http://dx.doi.org/10.1016/j.lrp.2009.07.010>. [33]
- Cornell Tech University (2020), *Cornell Tech - Runway Startups*, <https://tech.cornell.edu/impact/runway/> (accessed on 2 February 2021). [20]
- Gallagher; Palmer (2020), *The Pandemic Pushed Universities Online. The Change Was Long Overdue.*, <https://hbr.org/2020/09/the-pandemic-pushed-universities-online-the-change-was-long-overdue> (accessed on 1 February 2021). [1]
- Goddard (2019), *Can universities help transform the cities and communities they inhabit?*, <https://qswownews.com/can-universities-help-transform-the-cities-and-communities-they-inhabit/>. [7]
- Goddard, J. (2009), *Reinventing the Civic University*. [16]
- Johns Hopkins University (2021), *COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)*, <https://coronavirus.jhu.edu/map.html>. [36]
- Johns Hopkins University (2020), *Johns Hopkins Coronavirus Resource Center*, <https://coronavirus.jhu.edu/> (accessed on 1 February 2021). [21]

- Kantor, S. and A. Whalley (2014), “Knowledge Spillovers from research universities: Evidence from endowment value shocks”, *Review of Economics and Statistics*, Vol. 96/1, pp. 171-188, http://dx.doi.org/10.1162/REST_a_00357. [5]
- Karlusch, A., W. Sachsenhofer and K. Reinsberger (2018), “Educating for the development of sustainable business models: Designing and delivering a course to foster creativity”, *Journal of Cleaner Production*, Vol. 179, pp. 169-179, <http://dx.doi.org/10.1016/j.jclepro.2017.12.199>. [41]
- Kerr; Robert-Nicoud (2020), “Tech Clusters”, https://www.nber.org/system/files/working_papers/w27421/w27421.pdf (accessed on 1 February 2021). [19]
- Naskali (2020), *Fighting the pandemic - COVID-19 research at the University of Helsinki | University of Helsinki*, <https://www.helsinki.fi/en/news/health-news/fighting-the-pandemic-covid-19-research-at-the-university-of-helsinki> (accessed on 1 February 2021). [23]
- OECD (2020), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, OECD Urban Policy Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/e86fa715-en>. [31]
- OECD (2020), *Analysing the linkages between innovative start-ups and public research*. [18]
- OECD (2020), *Broad-based Innovation Policy for All Regions and Cities*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/299731d2-en>. [4]
- OECD (2020), “Coronavirus (COVID-19): SME Policy Responses - OECD”, https://read.oecd-ilibrary.org/view/?ref=119_119680-di6h3qgi4x&title=Covid-19_SME_Policy_Responses (accessed on 1 February 2021). [37]
- OECD (2020), *Evaluation of the Academy of Smart Specialisation*, http://www.oecd.org/cfe/smes/Evaluation_Academy_Smart_Specialisation.pdf. [15]
- OECD (2020), *Innovation, development and COVID-19 - OECD*, https://read.oecd-ilibrary.org/view/?ref=1059_1059289-s3nykmbav2&title=Innovation-development-and-COVID-19-Challenges-opportunities-and-ways-forward (accessed on 21 January 2021). [42]
- OECD (2020), *OECD Economic Outlook, Interim Report September 2020*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/34ffc900-en>. [27]
- OECD (2020), *Stocktaking Report on Immediate Public Procurement and Infrastructure Responses to COVID-19 - OECD*, https://read.oecd-ilibrary.org/view/?ref=132_132982-9i47fud8xb&title=Stocktaking-Report-on-Immediate-Public-Procurement-and-Infrastructure-Responses-to-COVID-19 (accessed on 1 February 2021). [11]
- OECD (2020), *The Geography of Higher Education: Evaluation of the Academy for Smart Specialisation*. [14]
- OECD (2020), “The impact of the COVID-19 crisis on regional and local governments: Main findings from the joint CoR-OECD survey”, *OECD Regional Development Papers*, No. 05, OECD Publishing, Paris, <https://dx.doi.org/10.1787/fb952497-en>. [28]

- OECD (2020), *The Territorial Impact of COVID-19: Managing the Crisis across Levels of Government* - OECD, https://read.oecd-ilibrary.org/view/?ref=128_128287-5agkkojaaa&title=The-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government (accessed on 21 January 2021). [29]
- OECD (2019), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264313835-en>. [24]
- OECD (2018), *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264308817-en>. [39]
- OECD (2017), *The Next Production Revolution: Implications for Governments and Business*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264271036-en>. [25]
- OECD (2014), "The crisis and its aftermath: A stress test for societies and for social policies", in *Society at a Glance 2014: OECD Social Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/soc_glance-2014-5-en. [40]
- OECD (2010), *OECD Employment Outlook 2010: Moving beyond the Jobs Crisis*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2010-en. [38]
- OECD (2007), *Higher Education and Regions GLOBALLY COMPETITIVE, LOCALLY ENGAGED*, <https://www.oecd.org/education/imhe/highereducationandregionsgloballycompetitivelocallyengaged.htm> (accessed on 11 November 2020). [17]
- OECD/European Union (2019), "Applying the HEInnovate framework to higher education in Italy", in *Supporting Entrepreneurship and Innovation in Higher Education in Italy*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/55bb258f-en>. [26]
- Oldaker (2020), *Coronavirus: How MBA Students Are Helping Startups In A Crisis*, <https://www.businessbecause.com/news/coronavirus-latest/7006/coronavirus-mba-students-helping-startups> (accessed on 1 February 2021). [10]
- Oregon State University (2020), *OSU Veterinary Diagnostic Lab produces critical COVID-19 test component for Oregon hospitals.*, <https://today.oregonstate.edu/news/osu-veterinary-diagnostic-lab-produces-critical-covid-19-test-component-oregon-hospitals>. [9]
- Oxford Bookes University (2020), *COVID-19 information - Oxford Brookes University: Enterprise Support*, <https://www.brookes.ac.uk/enterprise/covid-19/> (accessed on 1 February 2021). [13]
- Rosa and Monhen (2008), "Knowledge Transfers between Canadian Business Enterprises and Universities: Does Distance Matter?". [6]
- Ruef, M. (2003), "The Structure of Founding Teams: Homophily, Strong Ties, and Isolation among U.S. Entrepreneurs", *American Sociological Review*, Vol. 68/2, pp. 195-222, <http://www.jstor.org/stable/1519766>. [35]
- The Jakarta Post (2020), *Coca Cola, Gojek provide business assistance for small businesses - Business - The Jakarta Post*, <https://www.thejakartapost.com/news/2020/07/01/coca-cola-gojek-provide-business-assistance-for-small-businesses.html> (accessed on 3 February 2021). [3]

- UN (2020), *Higher Education Sustainability Initiative : Sustainable Development Knowledge Platform*, <https://sustainabledevelopment.un.org/sdinaction/hesi> (accessed on 1 February 2021). [30]
- UNESCO (2020), “Education: From disruption to recovery”, <https://en.unesco.org/covid19/educationresponse/>. [44]
- Vsnu (2020), *Universities in times of corona*. [8]

Annex 1.A. GoHE Webinars and guest speakers

Webinar 1: “An Ecosystem approach to Knowledge Exchange and Collaboration”, 8 April 2020

This first webinar has discussed how incentives, funding, policies, and evaluation systems can catalyse the impact of HEIs (including research universities, universities of applied science, and community colleges) on their ecosystems. In addition, it has raised important questions and considerations related to the current crisis.

Two speakers participated in the discussion:

- Andrés Rodríguez Pose, Professor, London School of Economics, UK
- Denis Gauvreau, Director of Innovation and Business Development, Polytechnique of Montreal, Canada

Webinar 2: “Higher Education Institutions responses to the Covid-19 pandemic”, 23 April 2020

All speakers and participants highlighted that HEIs are actively deploying innovative initiatives to cope with the COVID crisis. Such initiatives include teaching, research and knowledge exchange activities. HEIs have been very actively engaged with their communities. Engagement went beyond the diffusion of scientific knowledge (many researchers published papers on the COVID-19, and helped raised public awareness) and the collaboration with the health sector for a vaccine has reached a civic dimension.

- Christine Ennew, Provost, University Executive Office, University of Warwick
- Rosa Grimaldi, Professor of Entrepreneurship, University of Bologna, Italy
- Hoon Sang Lee, Visiting Professor, Yonsei University, Korea
- Sheila Martin, Vice President, Association of Public Land-Grant Universities
- Erwan Paitel, Ministry of Higher Education Research and Innovation, France and Director, International Training Program and Partnerships, Université Côte d'Azur
- Slavica Singer, Professor Emeritus of Entrepreneurship at the J.J. Strossmayer University, Osijek, Croatia

Webinar 3: “How Covid-19 has affected the relation between higher education systems and institutions and business?”, 29 April 2020

This webinar further developed the discussion on HEIs response to the Covid-19 pandemic (topic of the previous webinar), with a particular focus on the knowledge exchange that HEIs have been developing in connections with business sector actors.

The discussion was moderated by the organising team and featured six experts:

- Anthony M. Boccanfuso, President, University-Industry Demonstration Partnership, US
- Paul Coyle, Founder and Director, Entrepreneurial Mindset Network, UK

- Uzi De-Haan, Professor, Technion, Israel Institute of Technology and Runway Startup Program, Cornell University, US
- Siah Hwee Ang, Professor, Victoria University of Wellington, New Zealand and Director, Southeast Asia CAPE
- Andreas Zehetner, Vice President International Affairs, Professor, University of Applied Sciences Upper Austria

Webinar 4: “Agenda 2030, environmental sustainability and social inclusion”, 7 May 2020

The webinar discussed whether the covid-19 pandemic can catalyse HEIs’ contributions into Agenda 2030 and, more in general, add momentum to the transition towards sustainable and inclusive economies and societies.

The speakers were:

- Paul Bourguine, Senior researcher at CNRS, UNESCO UniTwin CS-DC (Complex Systems Digital Campus) École Polytechnique, France
- Chris McDonald, Senior Adviser at National Indigenous Australians Agency, Australia
- Christine Volkmann, UNESCO Chairholder of the UNESCO Chair For Entrepreneurship and Intercultural Management, Germany
- Per Westman, Swedish Higher Education Authority, Sweden
- Michiko Iizuka, Professor, National Graduate Institute for Policy Studies (GRIPS), Japan

Webinar 5: “Skills for the Future: New Teaching and Learning Methods, a Dialogue with the Private Sector”, 14 March 2020

The webinar discussed what skills will be most needed in the future, as well as types of interactions between HEIs and the business sector, with representatives from the business sector and more in general organisations involved in new and innovative forms of teaching and learning.

The speakers were:

- Olivier Crouzet, Head of Pedagogy, École 42, France
- Luigi Torlai, Project Leader, International recruitment, Audi, Germany
- Marc-Etienne Ouimette, Head of Public Policy and government relations, Element AI, Canada
- Tim Ackermann, Head of Global Talent Acquisition, Tui, Germany

Contacts

Raffaele TRAPASSO (✉ raffaele.trapasso@oecd.org)

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Contact us



Raffaele Trapasso

Economist and Co-ordinator
for Geography of Higher Education project

> Raffaele.TRAPASSO@oecd.org

