

“Digital upskilling, reskilling & finding talent: The role of SME ecosystems”

31 March 2022

A joint webinar of the OECD “Digital for SMEs” (D4SME) & EECOLE (Entrepreneurship Education, Collaboration, and Engagement) Initiatives

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Event and attendance

The D4SME & EECOLE webinar on “*Digital upskilling, reskilling & finding talent: The role of SME ecosystems*” was held virtually on 31 March 2022. It gathered over 100 participants from 44 countries – including representatives from OECD and non-OECD countries, business associations and business representatives from SMEs, SMEs association, as well as Universities and Higher Educational Institutions.

The D4SME and the EECOLE Initiatives

The “**Digital for SMEs**” Global Initiative (D4SME) is a multi-stakeholder dialogue engaging governments, large and small businesses, industry experts and associations on how to enable all SMEs to seize the benefits of digitalisation.

The “**Entrepreneurship Education, Collaboration, and Engagement**” (EECOLE) Network aims to connect HEIs with business, finance, government at different levels, and civil society. The aim of the Network is to promote entrepreneurship education and skills and strengthen the role of HEIs as drivers of inclusiveness and sustainability.

These initiatives are led by the **OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE)**.

For more information on the D4SME initiative, please visit: <https://www.oecd.org/digital/sme/>

For more information on the EECOLE Network, please visit: <https://www.oecd.org/cfe/smes/eecole.htm>

Background

Digital technologies offer different opportunities for Small and Medium Enterprises (SMEs) to improve performance. The uptake of software can help innovate products and expand markets, improve business processes and intelligence, enabling small and medium enterprises to lower transaction costs, while freeing energy and resources for more knowledge-intensive activities. Nevertheless, SMEs face substantial challenges in accessing and using effectively digital technologies. The gap is also pronounced between smaller and larger firms. One of the main barriers for SMEs is the lack of skills to master and effectively embed digital technologies in business processes. Factors such as the lack of awareness about skills needs for the digital economy, lack of knowledge about training and mentoring opportunities, and higher relative costs in finding and retaining talent can limit the development of digital skills.

Closing the digital skills gap is a key step to the digital transformation of SMEs. Information and Communication Technologies (ICTs) are at the core of the “knowledge economy”, but they cannot be leveraged without investment in human capital. SMEs are often unable to access digital talent or expertise within their ecosystem, or are unaware of how to up- and re-skill the existing workforce in an affordable and effective manner. Due to size and resource constraints, many small firms leverage on their ecosystem and networks to access the relevant skills to transform their business models to be digital, and unlock opportunities to be more productive, sustainable and resilient.

Governments, higher education institutions (HEIs), large firms, specialised training providers, professionals and technology practitioners can all contribute to closing the digital skills gap for SMEs. They can work together to develop practical and innovative digital learning for SMEs. Proximity among these actors can facilitate collaboration, but proximity alone it is not enough. Impactful digital learning is achieved when stakeholders from private and public sectors and HEIs have the skills, capacity and resources to implement an effective lifelong learning system. In this context, the event “*Digital upskilling, reskilling & finding talent: The role of SME ecosystems*” aimed to understand and define the role of HEIs in the SMEs ecosystem, to unleash opportunities for trainings to develop digital skills, maximising partnerships within networks and communities.

Key Takeaways

- ① **Lack of skills is one of the greatest barriers for SMEs' digital transformation.** Resource constraints and lack of training opportunities are some of the biggest barriers to the digital transformation of SME. However, the needed skillset to enter the job market are changing rapidly and digital skills are increasingly in demand, especially following the abrupt shift to digital channels on the onset of the COVID-19 pandemic.
- ① Across the OECD area, there is a strong gap between large and smaller firms in terms of ICT training provided to non-ICT professionals. To level the playing field, policy makers and other relevant players in their ecosystem, including HEIs, should place more attention on the needs of micro and small firms.
- ① At the same time, when addressing the digital skills gap, it is important to consider the large **heterogeneity of SMEs**, as small firms have different needs and **sectorial differences** can be large.
- ① **Digital skills must also be thought of within emerging markets.** There is a stark contrast for digital transformation between developed and emerging markets. The adoption of digital technologies can differ depending on general market conditions and access to infrastructure.
- ① “Digital skills” are intended as **the mind-set that allows to act intuitively in a digital environment.** These types of skills **include hard ICT skills** (ranging from basic digital skills such as the use of simple office software to advanced digital skills such as coding and programming), as well as **soft skills** (such as critical thinking, creativity and problem-solving skills, necessary for lifelong learning). There is also a need to distinguish the skills needed by different types of workers in SMEs, such as entrepreneurs/managers, and other employees.
- ① **Life-long learning is crucial.** The development of digital and soft skills must also be designed in terms of life-long learning, to accompany entrepreneurs and workers to understand and use ever-changing digital tools throughout their career. Embedding training through a long-term vision can help level the playing field and assure that everyone holds the necessary skills to manage digital tools and platforms according to their needs and ambitions.
- ① **The role of Higher Education Institutions (HEIs) in the SME ecosystem can be leveraged for the upskilling and reskilling of SME personnel.** The OECD Secretariat illustrated **the different channels through which HEI-SME collaboration can help develop digital skills for SMEs**, such as: traditional courses to develop students talent; training for upskilling and reskilling (i.e. life-long learning); knowledge exchange and collaboration (including incubators, accelerators, test beds); and mass knowledge sharing (i.e. MOOCs, open lessons). Particular attention, however, needs to be put on how partnerships between SMEs and HEIs are formed. Little evidence exists on this matter, and it may become a challenge to pinpoint the role of HEIs as they are sometimes not adjusted to market needs.



- ① **HEIs need to understand the needs of the SMEs in their ecosystem and act accordingly.** This includes assessing which types of digital skills (hard and soft) are most needed; which types of companies are more in need (e.g. sector, size); and which training opportunities and modules are already available and which are not. This can benefit students and job-seekers as well as SMEs' workers. .
- ① **Soft skills can be a game-changer.** Many participants highlighted the importance of integrating soft skills with trainings of digital skills. For example, competences such as problem-solving, creativity, communication and networking can increase firms' capacity and competences and can also help workers – in and outside SMEs – adapt to the rapidly-changing world of work.
- ① **Barriers for the digital transformation are heightened for certain population groups, such as women and youth.** Women and young entrepreneurs can often experience obstacles in their financial and digital inclusion, creating further barriers for the growth of their businesses. The socio-economic consequences of the COVID pandemic has further heightened these obstacles. For this reason, attention to facilitate the digital transformation for these groups needs to be prioritised, such as by offering tailored and accessible trainings.
- ① A great emphasis is being placed in many countries on transforming the crisis into an opportunity for SME digitalisation. HEIs and private sector programmes play a critical role in **enabling SMEs to develop and access digital skills, a prerequisite for them to build back better for a digital, inclusive and sustainable future.**
- ① **Various examples of programmes focus on digital skills for employees working in firms of all sizes.** On the European level, and in the context of the twin transitions (green and digital), the *Digital Europe Programme*, conducted by the European Commission, is investing in infrastructure and building networks within member states through Digital Innovation Hubs, which can act as important actors for the digital transformation of their regions. Similarly, the *Inventor initiative* by the Polytechnique of Montreal, Quebec, is investing financial resources in building prototypes of digital hardware to bring to market. Finally, *SkillsUp*, an Israeli start-up, launched an upskilling programme, which offers tailored training services to facilitate the digital transition. In fact, the company collects data on market needs and identifies what type of employees firms need. Other initiatives, such as the *Digital Transformation*, from the Stanford Center for Professional Development (United States); *CISCO Networking Academy* (Ireland); *Online Cybersecurity Course for Small Businesses* (Slovenia); *42KL* (Malaysia), also showed the benefits of cooperation with other organisations, including with HEIs, for the development of digital skills.

The panelists (in alphabetical order)



Ms Lucia Cusmano
Deputy-Head
Entrepreneurship, SMEs &
Tourism Division,
Centre for Entrepreneurship,
SMEs, Regions and Cities
OECD

Lucia Cusmano is Senior Economist and Deputy Head of the Entrepreneurship, SME and Tourism Division at the OECD Centre for Entrepreneurship, Small and Medium-sized Enterprises, Regions and Cities (CFE). She leads OECD work on SME and Entrepreneurship Transformations and has authored OECD reports on SME financing, innovation and sustainability, and benchmarking of SME and entrepreneurship policy,

Ms Cusmano has a PhD in Economics from the University of Pavia and has completed a Master of Science in Economics at Warwick University (UK). She has published in international journals on SMEs, entrepreneurship, innovation, structural change and economic development.



Mr Denis Gauvreau
Special Advisor on Innovation,
Polytechnique of Montréal
Canada

Denis Gauvreau is a technology transfer specialist and entrepreneur with over 30 years of achievements in Canada, France, the UK and Saudi Arabia. Denis' focus pertains to the development and management of innovation systems in public R&D centers. His current mandate is to develop a pre-seed/seed investment fund (INTERVENTURE) to support the commercialisation of R&D from Polytechnique Montréal. Denis was Director of International Affairs at the French genomics biocluster Genopole in Évry (2014-2019), following his tenure as part of the founder staff at KAUST in Saudi Arabia (2009-2013). He also worked as an entrepreneur-in-residence with the early-stage investment fund T2C2 in Montréal (2003-2009). In his early career, he was a professor at the University of Quebec (Institut national de la recherche scientifique) and at the Faculty of Medicine of the University of Montreal (1981-1995). He obtained his Ph.D. in Pharmacology from the University of Cambridge and completed his B.Sc. and MsSc. degrees in Biochemistry at the University of Montreal.



Mr Nehoray Ofri
CEO & Co-Founder, SkillsUp
Israel

Nehoray Ofri is the CEO and founder of Skillsup, which provides customized career guidance and training to help people from different backgrounds integrate into the tech industry. He has previously worked in policy consulting for parliament members and governments, alongside research on the Future of Work as part of his doctoral studies, and managed political and social projects in the field.



Ms Anne-Marie Sassen,
Head of Digital Transformation
of Industrial Ecosystems Unit,
European Commission

Anne-Marie Sassen is Head of Unit of the "Digital Transformation of industrial ecosystems" Unit in DG CONNECT, European Commission. The Unit's aim is to ensure that all industrial sectors in Europe benefit from digital transformation through greater efficiency in production processes, higher value digitised products, and new business models. The unit is responsible for the setup of a network of European Digital Innovation Hubs (co-funded between the EU, Member States and/or their regions) to enable all companies and public sector organisations to benefit from digital technologies.

Before joining the European Commission Anne-Marie worked as project manager for Atos in Spain and researcher for TNO in the Netherlands. She studied Computer Science at the University of Leiden, the Netherlands and received her PhD from the Technical University in Delft in the field of Human-Machine interaction.



For further reading



SME Digitalisation to Build Back Better (D4SME Policy Paper) (<https://doi.org/10.1787/f493861e-en>)

This policy paper aims to improve understanding on how SMEs responded to the COVID-19 crisis and adapted to the new environment, and how different players in their ecosystems are contributing to their digital transition. The paper focuses on some of the main trends emerging from - or being strongly accelerated by - the COVID-19 crisis, including access to digital infrastructure, e-commerce and teleworking. International practices in SME digitalisation policies and original evidence from the “rescue” and “recovery” packages launched by OECD governments to face the crisis are presented; as well as case studies and qualitative evidence from private-sector programme provided by partners of the Digital for SMEs Global Initiative (D4SME).



The Digital Transformation of SMEs (<https://doi.org/10.1787/20780990>)

Despite potentially tremendous benefits, small and medium-sized enterprises (SMEs) lag in the digital transformation. This report looks at recent trends in SME digital uptake, including in the context of the COVID-19 crisis. It focuses on issues related to digital security, online platforms, block chain ecosystems, and artificial intelligence. It identifies opportunities, risks of not going digital; barriers to adoption and policy actions to speed up SME transformation.



Enhancing SME Resilience Through Digitalisation – The case of Korea (<https://doi.org/10.1787/23bd7a26-en>)

The report investigates the role of government programmes in strengthening SMEs’ resilience to external shocks, by focusing on SME digitalisation policies implemented in Korea during the COVID-19 outbreak. The report examines how digital tools and services contributed to enhancing SME resilience during the pandemic and how policy programmes facilitated the strong acceleration in SME uptake of digital technologies.



OECD SME and Entrepreneurship Outlook 2021 (<https://doi.org/10.1787/97a5bbfe-en>)

Reviews the latest trends in SME performance and provides a cross-country overview of business conditions and policy frameworks for SMEs and entrepreneurs, with a forward-looking perspective on emerging opportunities and challenges, including digitalisation.



Evaluation of the Academy for Smart Specialisation (https://www.oecd.org/cfe/smes/Evaluation_Academy_Smart_Specialisation.pdf)

The Academy for Smart Specialisation, at the Karlstad University in Sweden, shows what a place-responsive HEI does to generate skills and services promoting innovation and sustainability in its ecosystem.



Contact:

OECD

Centre for Entrepreneurship, SMEs, Regions and Cities

Lucia CUSMANO, Deputy Head of Entrepreneurship, SMEs & Tourism Division (EST)

Lucia.CUSMANO@oecd.org

Marco BIANCHINI, Coordinator of the D4SME Initiative, EST Division

Marco.BIANCHINI@oecd.org

Raffaele TRAPASSO, Economist and Coordinator of EECOLE Network, EST Division

Raffaele.TRAPASSO@oecd.org

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