As part of a series of regional dialogues on “Women’s Economic Empowerment and Digitalisation in the post-COVID-19 MENA economies”, the MENA-OECD Women’s Economic Empowerment Forum (WEEF) and UNIDO co-organised the webinar “How to foster women’s entrepreneurship in the MENA digital sector”. The event was co-chaired by Egypt and Sweden. Panellists included experts from the Ministry of Digital Economy and Entrepreneurship in Jordan, the Ministry for Economic Affairs and Energy in Germany, the German Plattform Industrie 4.0, the Palestinian Information Technology Association of Companies and women entrepreneurs in the digital economy. Discussions were moderated by a Business School teacher.

During the first webinar “Developing girls’ digital skills in the post-COVID-19 world”, participants had concurred that MENA governments should sustain their efforts to ensure that women’s enhanced digital skills and increased use of technology fully contribute to women’s labour market integration, as both employees and entrepreneurs. As a follow-up to this first event, the second webinar focused on policy actions that can successfully address barriers facing women entrepreneurs when investing in the digital economy.

The second dialogue also highlighted progress and persistent challenges in women entrepreneurs’ access to and use of information and communication technologies (ICT), based on the results of a UNIDO survey conducted in 2019/2020 in Algeria, Egypt, Jordan, Lebanon, Morocco, Palestinian Authority and Tunisia.

**Key outcomes**
- The digital transformation of MENA economies is reshaping the nature of entrepreneurship and opens **new business opportunities for women entrepreneurs** who experience limited access to capital and difficulties to reconcile family and professional life.
- However, the digital economy is an elitist sector that threatens to exclude low-skilled and rural women entrepreneurs, due to limited access to digital skills and tools.

**Key recommendations**
- MENA policy-makers need to adopt an **intersectional approach to support women’s entrepreneurship in tech**, unleashing the potential of highly-skilled women entrepreneurs who want to invest in the digital sector, while supporting rural and low-skilled ones.
- Stakeholders’ attention should focus on **3 priority policy areas**:
  1. Using digital technology to mitigate traditional barriers to women’s entrepreneurship and narrowing gender and rural divides;
  2. Building bridges between entrepreneurship and digital skills in a lifecycle approach;

**The rise of the digital economy is an opportunity to close the gender entrepreneurial gap in MENA**

The digital economy appears to be one of the **most promising sectors** in the MENA region. The regional economic development would benefit from increasing investments in the digital field, with a sustained annual growth of 30% during the 2021-2023 period, reaching USD 97 billion by 2023 (Redsheer, 2021).
This presents an opportunity to **create the additional jobs needed in MENA countries** where high-skilled university graduates currently make up almost 30% of the unemployed, many of them being women (World Bank, 2019). By creating new entrepreneurship opportunities to open up new markets and develop new products and services, the booming digital economy would be instrumental for an inclusive economic empowerment in the region.

The changing nature of entrepreneurship in the digital economy is **challenging some of the traditional barriers** aspiring women entrepreneurs and women-led businesses usually face. For example, participants highlighted that the digital economy facilitates the realisation of entrepreneurial projects operating from home, offering a possible compromise between paid work and family responsibilities, but also overcoming mobility restrictions, both of which play a pivotal role in women’s labour participation in the MENA region. Moreover, being less capital-intensive and labour-intensive, digital businesses appear suitable in a region where women face impediments in accessing capital, or in leasing and owning property (Box 1). Similarly, discussions underlined that a better use of digital technologies can facilitate women’s entrepreneurship in MENA countries, especially for the most disadvantaged women (see policy priority #1).

**Box 1: What is the digital economy?**

"The Digital Economy incorporates all economic activity reliant on, or significantly enhanced by the use of digital inputs, including digital technologies, digital infrastructure, digital services and data. It refers to all producers and consumers, including government, that are utilising these digital inputs in their economic activities." OECD (2020)

“The digital economy is reshaping how businesses are structured: Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world’s largest accommodation provider, owns no real estate.” Goodwin (2015)

**By combining emerging and traditional barriers, the digital economy threatens to exclude disadvantaged women entrepreneurs**

Participants underlined that, if talent is equally distributed among genders and women entrepreneurs, business opportunities in the digital economy are not. They classified constraints to women’s entrepreneurship in tech into two groups:

1. Barriers specific to the digital field, which disproportionally affect rural and/or low-skilled women entrepreneurs.
2. Traditional barriers extended to the digital sector, which affect all women entrepreneurs whatever the technical nature of their skills.

Therefore, the rise of the digital economy may benefit men entrepreneurs more - and to some extent to highly-skilled women - while leaving behind low-skilled women.

**Uneven access to digital tools and skills discriminates low-skilled and rural business-women**

Gender and rural digital divides overlap and exacerbate inequalities rural and low-skilled women entrepreneurs face when trying to enter the digital economy. Indeed, internet connectivity, access to affordable technologies and the ability to use them are key for newcomers willing to invest in the digital sector. Consequently, while some women entrepreneurs are well-equipped to benefit from growing business opportunities in tech, some risk to be left behind. These impediments include:

**Restricted digital skills:** The digital sector is a demanding industry in terms of technical requirements. Coding, programming, analysing big data, artificial intelligence and internet of things require specific skills not all women entrepreneurs have or can acquire to start and develop their high-tech business activities. Yet, while
two-thirds of MENA women entrepreneurs were willing to receive training on ICT devices and software, only one fourth actually received such training. As a result, ICT seemed difficult to use for 35% of MENA women entrepreneurs and 12% considered the lack of digital literacy as a principal barrier to use technologies in their business activities. This rose to 17% for women entrepreneurs having lower levels of education, compared to 4% for those who graduated from university (UNIDO, 2021).

**Uneven connectivity and access to digital tools**: Despite improvements, connectivity is patchy across and within MENA countries. For example, poor internet and network coverage are significant challenges for 28% of MENA women entrepreneurs (UNIDO, 2021). Rural areas are particularly affected by reduced network coverage, with only 44% of rural areas in Arab States benefiting from 4G mobile network coverage, compared to 76% of urban areas (IUT, 2020). This is a key impediment to rural women entrepreneurs’ use of technology in their business activities and investment in the digital economy. Affordability presents another limitation for women entrepreneurs: 41% of women entrepreneurs declared ICT cost as the main reason for not using technologies in their business activities (Fig. 1). As a result, 20% of those surveyed by UNIDO possessed a touchscreen tablet and 50% a laptop computer (Fig. 2). The difficulties are amplified for rural women, with only 34% of rural household having access to a computer compared to 67% for urban ones (IUT, 2020).

**Traditional barriers to women’s entrepreneurship hinder their investment in the digital economy**

Structural barriers to women’s entrepreneurship are persistent in the MENA region (Box. 2). This is especially true in male-dominated industries, such as the digital economy, where strategies and decision-making are mostly influenced by male perspectives and are seldom to ensure gender-sensitivity in design. As a result, the following impediments to gender equal opportunities have been extended or exacerbated in the tech field:

**Complex formal business registration**: Legal frameworks guarantee women the right to register a business in the same way as men in all MENA countries. However, complex administrative procedures for registration of new businesses and formalisation of informal ones disproportionally affects women’s ability to start their businesses. This is related to a lack of information on procedures, as well as their cost, which is particularly high for women entrepreneurs who have a limited access to financial resources compared to men.

**Lack of entrepreneurial skills**: Women often report lacking fundamental business management skills needed to start, run and grow their business. This includes financial and budgeting, analytical and problem-solving, strategic thinking, planning, time management, decision making, marketing, networking, and customer service skills. While entrepreneurial competencies are seldom taught in schools, few women can acquire them through vocational education and training (VET) programmes. In 2019, only 4% of young women were
enrolled in VET in Arab States and 6% in North Africa (ILO, 2020). As a result, only half of MENA women declared being confident in their capability to start a business compared to two-third of men (GEM, 2019).

What about the digital sector? This lack of business skills affects women’s ability to invest in digital entrepreneurship, which requires the same set of essential skills as any other company.

Box 2: Key data on traditional barriers to women’s entrepreneurship

The 2017 UNIDO study on women’s entrepreneurship in Egypt, Jordan, Lebanon, Morocco, Palestinian Authority and Tunisia provides interesting highlights on the main barriers women face in starting and growing their business:

- over one-fourth of MENA women entrepreneurs wanted to see a reduction in administrative processes;
- lack of financing was considered as the main obstacle to start a business by 37% of women entrepreneurs, and as an impediment to growth by 36% of women in Palestinian Authority, 38% in Lebanon, 40% in Jordan and 42% in Egypt;
- one-fifth of women entrepreneur considered family responsibilities as a main obstacle to start their business in the region, while one-fourth cite the lack of assistance.

**Limited access to financial resources:** First, legal discrimination is a major determinant of restricted women’s financial inclusion. In the 19 countries of the region, legal frameworks do not provide men and women with equal inheritance rights, and 13 of them do not prohibit gender discrimination in access to credit (World Bank, 2021). Second, widespread gender bias and discriminatory practices are persistent within financial institutions in the region (OECD, 2017a). Being twice as likely to invest in female-led enterprises, women venture capitalists may help overcome such discrimination. However, their number remains limited in the region and globally reaching only 11% of investing partners in venture capital firms worldwide (Harvard Business Review, 2021).

What about the digital sector? Participants emphasised that, despite being less capital-demanding, the tech industry is characterised by strong discrimination against women in accessing funding, as gender biases are particularly widespread among investors.

**Gender roles and lack of child-care facilities:** Speakers recalled that discriminatory gender norms and attitudes are an important impediment to women’s entrepreneurship in the region. A significant share of the MENA population considers unacceptable for a woman to work outside the home for pay: 19% in Tunisia, 21% in Morocco, 30% in Jordan, and up to 34% in Egypt (OECD, 2020b). On the contrary, social norms define child caring and domestic work as a female prerogative. For example, 72% of Moroccan men and 87% of Egyptian men believe that a woman’s primary role is to care for the household (OECD, 2020b). Given the restricted access to affordable and quality child care facilities, such gender norms seriously constrains women's entrepreneurial ability. Even with access to childcare opportunities, social stigma might still restrict women’s entrepreneurship, as between one-third and two-thirds of the MENA population declare that children will suffer with working mothers (Haerpfer et al., 2020).

What about the digital sector? Gender stereotypes traditionally associate both entrepreneurship and digital careers with masculinity, amplifying the social stigma of women leading digital businesses.

**Restricted access to network:** Most MENA women entrepreneurs struggle to join established networks and Chambers of Commerce, which play an important role in facilitating the development of businesses. For example, networking rate for women entrepreneurs in Jordan stood at 18%, which is below the male average rate for the Arab States by 16 percentage points (GEM, 2017). Family responsibilities, restrictive social norms and limited mobility affect their ability to interact outside work. In addition, “old boys” networks often
dominate the business sphere in male-dominated sectors and are seldom prone to welcome women entrepreneurs or to channel developmental opportunities to them (ILO, 2016). This limited access to network is a key impediment to businesswomen’s public advocacy and, in turn, to gender-sensitive entrepreneurship policies and programmes.

What about the digital sector? The tech industry remains a masculine field, where women’s network size and effectiveness is constrained by gender bias.

**Gender-blind entrepreneurship programmes**: Women have a limited access to the advice, consultancy, mentoring and networking support offered by business development centres. For example, only 12% of women entrepreneurs in Egypt and 14% in Tunisia benefited from advisory or business development services (UNIDO, 2017). As most programmes evaluate risks when carrying out their selection processes, they often exclude women as they are unlikely to fit in the definition of potential “successful” entrepreneurs. Moreover, even when women access entrepreneurship programmes, the services offered are poorly adapted to their realities, needs and schedules.

What about the digital sector? Mainstream entrepreneurship programmes often fail to adapt their curriculum to the digital sector. In addition, support projects dedicated to women do not conceive the digital sector as a possible path for them. They focus mainly on basic skills and consider digital as a tool to simplify women’s business procedures rather than a booming sector they could invest in.

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**Box 3: What is intersectionality?**

Intersectionality refers to the overlap between gender and other forms of discrimination, which leads to increased inequalities and further disadvantage some women. These categories include education, age, disability, migration status or place of residence (OECD 2019a).

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**Three policy areas to foster women’s entrepreneurship in the MENA digital sector**

Speakers called for **applying an intersectional approach to entrepreneurship policies**, which takes into account the wide variety of women entrepreneurs’ realities in the digital age, depending on their level of education, skills, age, or living areas (Box 3). This comprehensive policy framework would combine actions to address the traditional barriers to female entrepreneurship with strategies to mitigate the emerging obstacles specific to the digital sector. Panel discussions identified three policy areas to support both highly-skilled and disadvantaged women entrepreneurs in investing in the digital economy.

**Priority 1: Using digital technology to mitigate traditional barriers to women’s entrepreneurship and narrow gender and rural divides**

**Dematerialising business registration is the first step to a more inclusive entrepreneurship ecosystem.** Speakers underlined the importance of encouraging women to formalise their businesses and using digital tools to make the registration process more accessible, especially for low-skilled and rural women.

**Best practice example:**

To facilitate the formalisation of SMEs and businesses operating from home, Morocco issued a law to introduce the auto-entrepreneur status in 2015 – a simplified status that applies to entrepreneurs having an annual turnover under a given threshold. The dematerialisation of the registration procedure and the option to pay taxes and social contributions online has increased the accessibility to the status.

**Developing digital financial services** can improve women’s financial inclusion in the MENA region. New options for storing, transferring and accumulating money can enhance women entrepreneurs’ access to finance, especially in remote areas.
Best practice example:

Women’s World Banking designs financial solutions to empower women worldwide, including through digital tools. In Pakistan, the organisation partners with the mobile financial provider JazzCash to provide funding to low-income women entrepreneurs living in isolated rural areas.

Capitalising on the flexibility offered by online tools to develop women’s skills and network. Online training and networks may help women entrepreneurs overcome mobility restrictions, reduce transport costs and accommodate family responsibilities. This is especially true for women living in remote areas.

Best practice examples:

Womenpreneur Digital Hub is a digital knowledge space dedicated to women in the MENA region, providing access to events, support, advices, and trainings. Online resources enable women to develop their entrepreneurship skills, financial education, digital literacy and networking opportunities.

In partnership with UNIDO, Bridge for Billions developed the IDEA App tool, which provides 6 to 9 months online entrepreneurial coaching and mentoring programmes for entrepreneurs to develop bankable business plans. Thanks to its online format, the App reached over 300 entrepreneurs, including one-third of women.

The Egyptian Ministry of Planning and Economic Development launched “She is for a Digital Future” training program, in partnership with CISCO and UNDP. The initiative aims at using the electronic platform Zoom to train 2,000 women on digital skills and financial inclusion.

New technologies can help narrowing gender and rural digital divides in MENA. This includes addressing connectivity issues through affordable services. Geographical features of MENA countries make investment in connectivity infrastructures relatively costly and technically challenging. However, digital technologies offer new opportunities to run businesses from remote areas. Making these tools known, available and affordable to all women entrepreneurs would unlock their potential to invest in the digital.

Best practices example:

The Internet Saathi Initiative aims at developing rural women’s access to the digital sector in India and reached more than 28 million women. In the less-connected rural regions with a variable electricity network, women are provided with special “feature phones”, with a more extended battery life.

Priority 2: Building bridges between entrepreneurship and digital skills in a lifecycle approach

Offering a dual education is necessary to match the needs of the digital economy. MENA governments should strengthen their efforts to link digital and entrepreneurship education and training programmes, equipping women with the skills needed to invest in digital entrepreneurship.

Best practice example:

The French Business School HEC offers a Digital Entrepreneurship Certificate, enabling students to embrace e-business through an entrepreneurship approach. Courses explore the various ways digital technologies boost innovation through new business models, e-commerce, digital communication, collaborative marketing, or the funding of new ventures. As a complement, the Future of Work module gives an understanding of the major technological trends reshaping businesses, such as automation, digitalisation, artificial intelligence and robotics.

Providing a continued access to entrepreneurial and digital training at all stages of women’s lives would facilitate their reskilling and upskilling. Participants agreed that digital entrepreneurship training programmes should be more accessible for women and tailored to the low-skilled. These programmes should
enable women to start their business in the digital field, convert their pre-existing enterprises to the digital, or expand their digital businesses, whatever the technical nature of their skills.

Best practice example:

The Palestine Information and Communication Technology Incubator (PICTI) facilitates women digital entrepreneurs’ upskilling and builds the capacities of ICT female-led businesses. The incubator has a Women’s Economic Empowerment Programme providing them modern tools for their business benefits.

Designing gender-sensitive entrepreneurship programmes acknowledges the specific needs of women entrepreneurs. The webinar underlined the relevance of women’s access to entrepreneurship programmes for their self-esteem, decision-making capacity and knowledge. Gender-sensitivity should be at the centre of the design and marketing of such programmes to attract more women and adapt to their various realities. This includes creating and monitoring gender targets on participation, and recruiting gender diverse staff.

Best practice examples:

She Starts Africa is a social enterprise working in six African countries and aiming to empower women entrepreneurs through capacity building. The organisation dedicates programmes to women and offers them holistic and specific mentoring. The Programme “She Starts UC” creates clubs in Tunisian universities, offering female students training, tools and resources to promote entrepreneurship.

By ensuring gender diversity among staff, Bridge for Billions enhances its capacity to design gender-sensitive entrepreneurship programmes. The organisation provides business incubation services that include flexible time arrangements to enable female caregivers to attend trainings. In addition, its marketing and communication strategy attracts women and diversity by showcasing women entrepreneurs with diverse backgrounds. The organisation also sets up quotas at the selection process and measures the impact of programmes on women and men to ensure gender equality at all stages.

Priority 3: Creating a MENA gender-friendly digital environment

Greater engagement of women tech entrepreneurs in networks and public-private partnerships is important to promote a conductive digital ecosystem. Speakers recalled the importance of bringing together companies, unions, academia and associations to have a joined understanding in the formulation of gender-friendly entrepreneurship and digital policies.

Best practice examples:

In 2013, the German Ministry for Economic Affairs and Energy and the Ministry of Education and Research developed the Plattform Industrie 4.0 - in partnership with the private sector and civil society - to promote the digital transformation of manufacturing in Germany. Experts from business, science, associations and trade unions work with representatives from various federal ministries in thematic working groups to strengthen the digital competitiveness of Germany.

The Palestinian Information Technology Association of Companies (PITA) represents more than 150 major ICT companies in Palestine’s emerging technology ecosystem. It organises events gathering women entrepreneurs, change makers, influencers and leaders to support women’s voice in ICTs.

Mainstreaming gender considerations into digital strategy is key to develop a gender-friendly digital ecosystem. Bolstering the creation and growth of women-led tech SMEs calls for a broad approach to empower women in the ICT sector.
Best practice example:

In Jordan, the Ministry of Digital Economy and Entrepreneurship adopted a gender-integrated approach of digitalisation. On one side, it mainstreams gender in all its pillars, namely digital entrepreneurship, digital skills, digital financial services, digital infrastructure and digital platform. On the other side, it has a department dedicated to women, designing specific programmes for women’s empowerment.

Tackling gender stereotypes and providing role models can encourage girls and women to become tech entrepreneurs. Participants recalled the importance of eliminating discriminatory attitudes among public and private sectors, the media, individuals, parents, educational institutions. Allowing tech businesswomen to gain visibility and promote diverse role models will raise awareness about digital entrepreneurship as a possible path for women empowerment.

Best practice example:

The NGO Girls Who Code aims to close the gender digital gap and change the image of programmers in the US. The organisation offers various programmes for girls, to make them exploring coding, and increase their exposure to tech jobs. In addition, the NGO promotes role models, to make students - and their parents - exploring the hidden success stories of women in the digital.

Ways forwards

Panellists concluded that MENA governments should adopt an intersectional approach to policy designed to empower women in the digital age. This implies developing entrepreneurship and digital policies that are relevant to women in their diversity. To that end, data disaggregation by sex, location, age and education would be critical.

The WEEF will keep focusing on digitalisation as an enabler to boost women’s economic empowerment in the MENA region. The next WEEF event will discuss a feasible intersectional approach of gender equality (17 March 2022). The 2022 WEEF Annual Meeting will aim at designing a road map to support the elaboration and implementation of inclusive digital policies in the MENA region.
References

UNIDO (2021), Baseline Study "Women entrepreneurs’ access to and use of information and communication technologies in the manufacturing sector”.

1 The event gathered over 200 participants from 13 MENA and 13 OECD countries.
2 “The Internet of Things refers to an ecosystem in which applications and services are driven by data collected from devices that act as sensors and interface with the physical world.” OECD, 2020a.
3 “Masculinities encompass the various socially constructed ways of being and acting, values and expectations associated with being and becoming a man in a given society, location and temporal space.” OECD, 2021a.
4 “Digital financial services (DFS) are financial services which rely on digital technologies for their delivery and use by consumers.” World Bank, 2020.

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Agenda

11h00-11h20  Opening session

The co-chairs of the MENA-OECD Women’s Economic Empowerment Forum (WEEF), the UNIDO Chief of Arab Region Coordination Division and the OECD Deputy Secretary-General will stress the role of regional cooperation and multi-stakeholder dialogue in enhancing MENA support to women entrepreneurship in the digital sector.

Speakers:

- H.E. Dr. Hala EL SAID, Minister of Planning and Economic Development, Egypt, Co-Chair of the MENA-OECD Women’s Economic Empowerment Forum
- H.E. Jan THESLEFF, Commissioner General Expo 2020 for Sweden, Co-Chair of the MENA-OECD Women’s Economic Empowerment Forum
- Ms. Hanan HANZAZ, Chief of Arab Region Coordination Division, UNIDO
- Mr. Ulrik KNUDSEN, Deputy Secretary-General, OECD

11h20-11h30  Session 1: Presentation of the results of UNIDO’s study

This session will present the results of UNIDO’s study on “Women entrepreneurs’ access and use of information and communication technologies in the manufacturing sector” conducted within the project “Promoting women’s empowerment for an inclusive and sustainable development in the MENA region” labelled by the Union for the Mediterranean.

- Dr. Neila AMARA, International Project Management Expert, UNIDO

11h30-12h35  Session 2: Initiatives to foster women’s entrepreneurship in the digital sector

MENA and OECD governments, private sector members and civil society representatives will identify both barriers and success factors for women’s investment in the digital economy, while sharing good practices to promote women entrepreneurship in tech.

Moderator:

- Ms. Marina NIFOROS, Affiliate Professor at HEC Paris, Chair of Nominations Committee and Member of the Hellenic Corporation of Assets and Participations (HCAP)

Speakers:

- Dr. Nael ADWAN, Investment and Entrepreneurship Department Director, Ministry of Digital Economy and Entrepreneurship, Jordan
- Mr. Ernst STÖCKL-PUKALL, Head of Division Digitalisation and Industry 4.0, Department for Industrial Policy, Federal Ministry for Economic Affairs and Energy, Germany
- Dr. Svenja FALK, Head of Berlin Office and Managing Director, Accenture, Germany
- Ms. Megan TANNOUS, Project Officer, Palestinian Information Technology Association of Companies (PITA)
- Ms. Julie MURAT, Chief Operating Officer and Co-founder, Bridge For Billions, Spain
- Ms. Salmine SASSI, Entrepreneur, Innovation consultant, Tunisia

12h35-12h55  Questions and Answers

12h55-13h00  Closing session