

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

**UPDATED GUIDELINES AND BEST PRACTICES FOR MSMES
IN DELIVERING ENERGY EFFICIENT PRODUCTS AND
RENEWABLE ENERGY EQUIPMENT**

Geneva, October 2021

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ACRONYMS AND ABBREVIATIONS

BKIK	Budapest Chamber of Industry and Commerce
COVID	Coronavirus Disease
EGAP	Export Guarantee and Insurance Company
EU	European Union
GDP	Gross Domestic Product
GIZ	German Agency for International Cooperation
HORECA	Hotel/Restaurant/Café
IDF	Investment and Development Fund
kWh	kilowatt-hour
MSME	Micro-, Small and Medium Enterprises
OECD	Organisation for Economic Co-operation and Development
PwC	PricewaterhouseCoopers
R&D	Research and development
SME	Small and Medium Enterprises
UNDA	United Nations Development Account
UNECE	United Nations Economic Commission for Europe
VAT	Value-added tax

EXECUTIVE SUMMARY

The micro-, small and medium enterprises (MSMEs) in the UNECE region faced severe hurdles during ongoing COVID-19 crisis. The challenges impacted both financial and technical growth of MSMEs, mainly due to disruptions in user demand, supply chain, financing availability, manpower, etc. In particular MSMEs working in clean energy sector (Renewable Energy and Energy Efficiency Solution providers) faced the problem of not being able to deliver the targets set before the pandemic due to the interruptions in the supply chain and closure of sites due to restrictions issued by the government.

The survey conducted by SME United (SME United, 2021) in UNECE region has revealed that the pandemic has pushed more than half million of self-employed to close their businesses between the 4th quarter of 2019 and the 4th quarter of 2020. The working environment for MSMEs has changed abruptly with major part of the workforce working from remote locations, and only the essential workforce involved in manufacturing at the workplace. Transformation of the products and services of MSMEs during the pandemic has been observed as digitalization is being considered as a necessary means for the growth of these enterprises.

Countries in UNECE region have laid out the economic recovery from the pandemic through “Green” means, which provides the opportunity for the MSMEs in the energy efficiency and renewable energy equipment sector to improve their current situation. Several research and development funding programmes like EU Horizon 2020 and Green Deal 2020 are supporting MSMEs in converting their innovative ideas into commercialized products, yet there is still a need for continuous support for MSMEs until the COVID-19 crisis is over.

The current update of this guidelines report involves the detailed analysis of the operational practices of MSMEs during the continuing COVID-19 pandemic, with focus on the challenges faced by MSMEs adopting to the new working environment, and the solutions used by them to improve the working environment. The report also presents the case studies from the MSMEs working in the energy efficiency and renewable energy equipment sectors, in order to develop recommendations for improving the working environment. The measures executed by the Governments for MSMEs in these sectors are also identified and explained in this report. These are main findings of the analysis regarding COVID-19 recovery actions taken in 2020-2021 by MSMEs in the UNECE region and possible further supporting activities:

- **Communication over internet and social media.** In 2020-2021 most of the UNECE member States showed strong progress in development and increase of participation level in various online-based platforms and databases.
- **Online sales.** Rapid increase of the online sales was shown for all MSMEs, including the Energy Efficiency and Renewable Energy oriented, including relevant changes in the supply and delivery chains.
- **Provision of more value-added services.** Various collaboration programmes were established across the UNECE member States between MSMEs and international agencies, universities, companies and various national stakeholders.
- **Support of growth strategy.** For most of the European countries there were established number of technical and financial advisory support activities. Regional and/or national programmes for MSMEs to get advice and technical support in application for funds are still not so well implemented in the Central Asian and the Caucasus regions.
- **Accessing ‘easy’ markets.** Due to remaining COVID-19 travel and transport restrictions there is a limit of possible ways to increase access to the “easy” markets or even just increase the sales geography of the proposed product or service. These issues are still relevant for most of the countries from Eastern and South-Eastern Europe, the Russian Federation, Central Asia, and the Caucasus.
- **Work from home.** In 2020-2021 the remote work modality became a “new normal” for most MSMEs across the UNECE member States.
- **Provision of paid online trainings.** A number of training programmes were set up by business associations, national and international stakeholders and private companies in order to share experience and success stories in running business during the pandemic.

- **Strengthening research and development (R&D) portfolio.** The R&D portfolio of MSMEs increased due to improved communications and work from home modalities, which resulted in extra time for using of R&D capacities for improvement of the production or service provided. Additional mentoring and capacity building support is required for the companies from the Central Asian and the Caucasus regions.
- **Applying for international funding.** Many MSMEs in the UNECE region have access to local and international financing. There are established mechanisms for communication with relevant national and international stakeholders to initiate capacity-building consultations or to browse through available platforms of regional, national and international funding programmes.
- **Focus on alignment with pandemic-related activities.** MSMEs from all UNECE member States showed their alignment with pandemic-related activities, by accepting relevant sanitary rules, social distancing and employees' vaccination requirements, in accordance with national health and safety protocols.

Further additional support of initiated activities is required for most of the identified actions steps, that were formulated in Chapter 3 of this report in accordance with initial suggestions prepared in the “Guidelines and best practices for micro-, small and medium enterprises in delivering energy-efficient products and in providing renewable energy equipment” published by UNECE in 2020 (UNECE, 2020).

The following recommendations are derived from the findings of this study:

- **Supporting visibility of the recovery actions for the existing and new investors and clients.** It is important to continue communication and outreach to investors, clients, and partners by disclosure of technical capacity and financial status of the company during the continuing COVID-19 pandemic.
- **Social media activity.** Further development should be focused on elaboration of more user-friendly interfaces for distribution and service maintenance of the products, as well continuous on-line consultancy support in case of need, that should be conducted in parallel with common social media promotion.
- **Getting additional funding.** It is important to maintain the key service and manufacturing priorities in accordance to the requirements existing MSME support programmes, that are available at the local or national level, as well as international funds. It is also recommended to conduct focused capacity building trainings for technical and procurement MSME specialists, in order to present key procedures and possibilities of the available financing mechanisms.
- **Getting access to the “easy” markets.** MSMEs should follow a clear actions plan, focused on optimization of production expenses and prioritizing access to the profitable markets.
- **Embrace new technologies while relying on the existing human resources.** MSMEs could continue to embrace new technologies while relying on the existing human resources, to keep businesses running without losing employees, especially in projects where remote assistance can be provided.
- **Introduction of COVID-19 protection products and consultancy services.** Positive experience of companies, which introduced COVID-19 protection products and consultancy services, could become a good example for MSMEs of finding new markets and potential cooperation partners.
- **Empower and support women during the post-crisis recovery.** From the perspective of the labour market it is important to ensure that labour policy frameworks support flexible working approaches for women entrepreneurs and their businesses. Additional support by local and national level policy makers should be done to empower women by helping them develop skills to build confidence to address cultural norms that may discourage women from exploring opportunities in non-traditional economic sectors, like energy efficiency and renewable technologies implementation.
- **Conduct and participate in online trainings.** It is strongly recommended for MSMEs with expertise in their sectors to provide online trainings and participate in relevant once.

INTRODUCTION

United Nations Economic Commission for Europe (UNECE) is one of the partners implementing United Nations Development Account (UNDA) project “Global Initiative towards post-Covid-19 resurgence of the MSME sector.” The overall goal of the project is to strengthen the capacity and resilience of MSMEs in developing countries and economies in transition to mitigate the economic and social impact of the global COVID-19 crisis

The severe health catastrophe due to COVID-19 has pushed the global governments to implement extreme measures like administrative business shutdowns, quarantines and restrictions on mobility and social contact, etc. to contain the spread of virus. These measures have led to cessation of the global economy, with uncertainty over the duration of the pandemic, treatment methods, prevention methods like vaccines, etc. causing stress to the people and the economy.

Effect of the pandemic on a large number of industries simultaneously and the drop in sales of producers of intermediate goods and services even if confinement measures did not apply to them is also a cause for concern. Many companies along with the supply chains also face liquidity shortfalls, increase in trade credit losses, further adding to loss of cashflow. Findings from the SME Competitiveness Outlook 2021 report suggests that the smaller firms are less resilient to the shocks like COVID-19 pandemic and/or climate change, as they do not have key business fundamentals in place.

Challenges faced by MSMEs entering insolvency, according to the experts, are many folds. Some of the most notable ones include: 1) high level of informality of the businesses which, as a result, means that the MSMEs have limited information to satisfy insolvency law requirements; 2) insufficient assets to fund insolvency proceedings; 3) creditors passivity or lack of interest in the restructuring of the MSME; and 4) overlaps between business and personal insolvency regimes (e.g. in some countries consumer debts and entrepreneur debts are put in the same basket, while others have laws covering both entrepreneurs and companies). Because of those challenges, MSMEs tend to avoid formal insolvency procedures whenever they can, particularly on the micro and small side of the spectrum.

To support the governments in executing measures to boost the economy, UNECE developed the Guidelines and Best Practices for MSMEs in delivering energy-efficient products and in providing renewable energy equipment (can be shortly termed “Clean Energy MSMEs”) during the COVID-19 crisis in 2020, as part of its task under the project. The study report explained the difficulties faced by MSMEs in the UNECE region of the world during the COVID-19 pandemic and the measures initiated by the Governments and industrial bodies in the region to support MSMEs.

Based on the analysis of the working environment and supporting structures for MSMEs during 2020, the study showcased the best practices in the sectors of energy efficiency and renewable energy equipment. The report concluded with set of recommendations for the MSMEs to identify and use measures for access to finance, technological advancements, market acquisition, etc. and the and the Governments in promoting the enabling instruments like policy guidelines and financial incentive schemes.

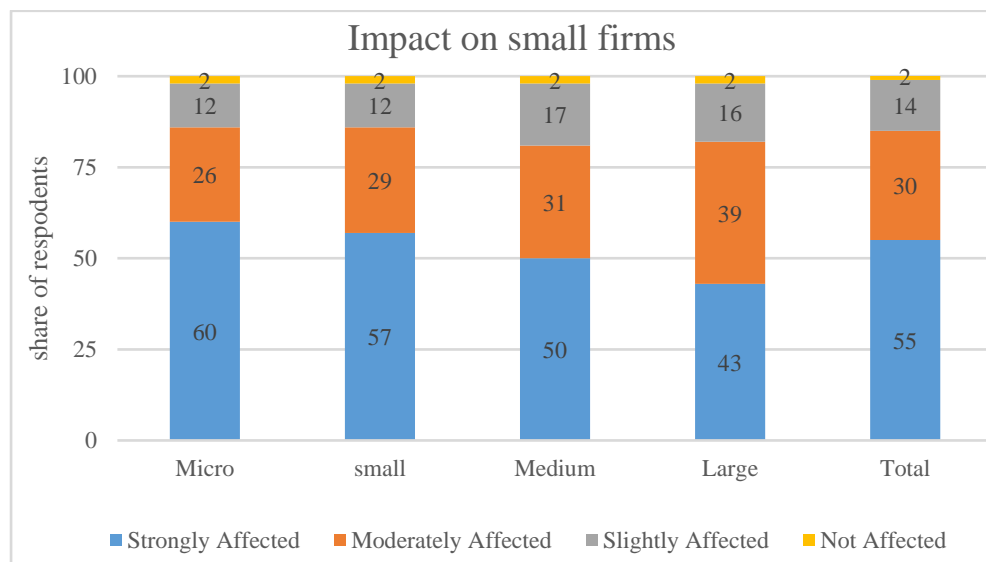
Impacts of COVID-19 pandemic on MSMEs

Surviving the COVID crisis has been daunting for MSMEs with their scarce resources. By the end of 2020, COVID-19 had caused more than 1.5 million deaths and \$28 trillion in economic losses. Lockdowns, curfews, shutdowns, etc. impaired business operations. Shortage of supply lines halted production, reduction in labour availability, reduced demand were the major impacts of the pandemic for the MSMEs.

Small and Medium Enterprises (SMEs) were cash strapped, with less inventory and limited supplies, absorbed price increase and input shortage. This led to the risk of permanent shutdown to 26% of micro firms.

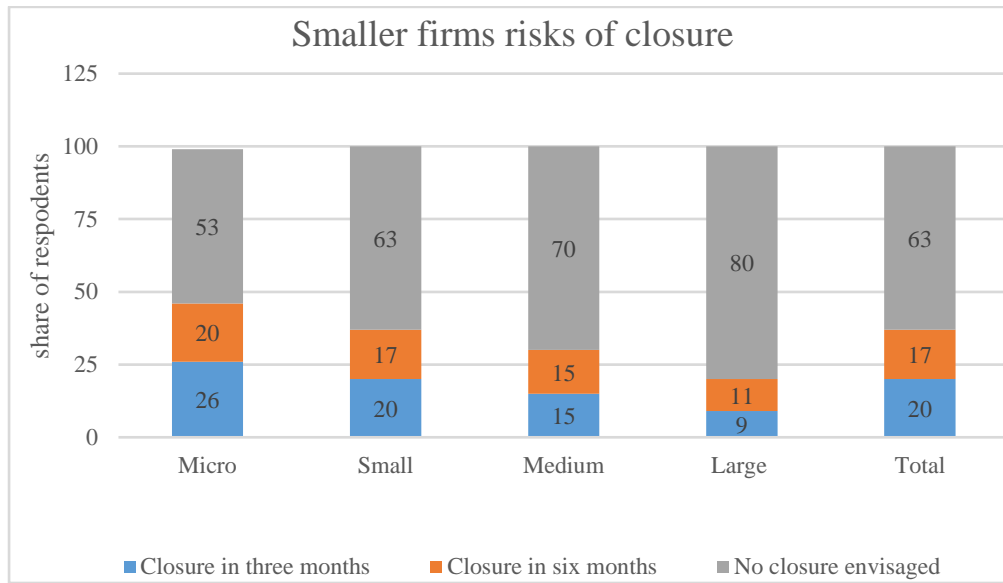
Smaller companies were more exposed in pandemic than the larger ones. International Trade Centre (ITC) COVID-19 Business Impact Survey shows that the pandemic affected virtually all companies (98%), with a majority (55%) stating they were strongly affected (ITC 2021). Impact of COVID-19 on smaller firms is shown in Figure 1. Figure 2 shows the effect of pandemic on MSMEs, which were at the risk of closure.

Figure 1 COVID-19: Stronger impact on smaller firms



Source: ITC COVID-19 Business Impact Survey, April-August 2020, with 3,949 businesses in 123 countries

Figure 2 COVID-19: Smaller firms at higher risk of closure



Source: ITC COVID-19 Business Impact Survey, April-August 2020, with 4,694 businesses in 136 countries

1. ANALYSIS OF OPERATIONAL PRACTICES THAT ARE USED BY MSMEs DURING CONTINUING COVID-19 CRISIS IN 2020-2021

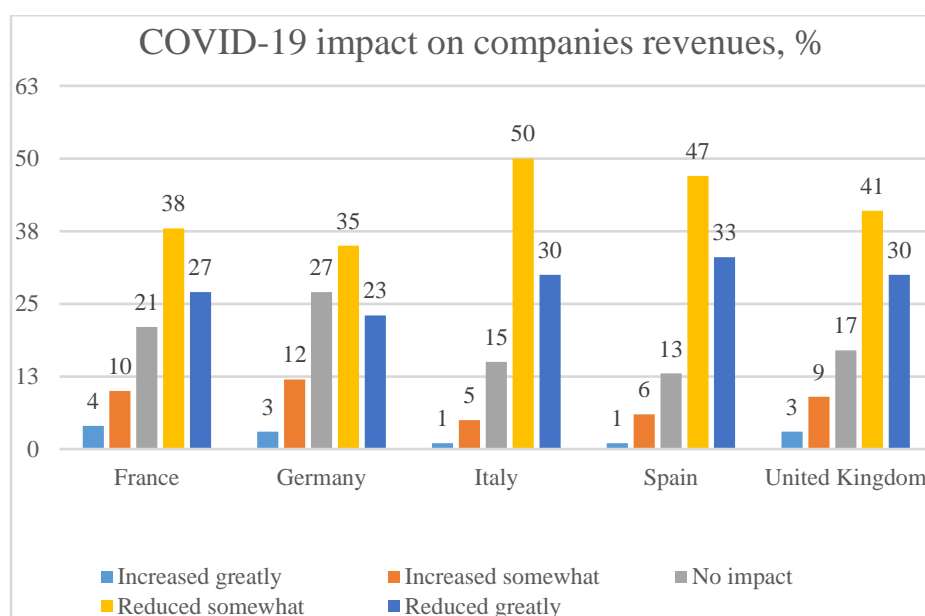
With the continuation of the COVID-19 pandemic in 2020-2021, MSMEs in the clean energy sector are affected by several issues covering the areas like production, sales, marketing and research & development. With the workforce being unable to contribute at the premises, the productivity of these industries has continued to reduce. The sections below detail out the impact of working environment on MSMEs as a result of the COVID-19 pandemic.

1.1. Impact of working environment on MSMEs as a result of the COVID-19 crisis

Impact on companies' revenues

The major impact on most of the MSMEs is the sharp fall in revenues, even in the developed economies across Europe. As these revenues fell, the working environment within the organizations has been affected severely. Results of Covid-19 impact on companies' revenues assessment conducted by McKinsey & Company in August 2020, are presented in Figure 3 below.

Figure 3 COVID-19 Impact on companies' revenues

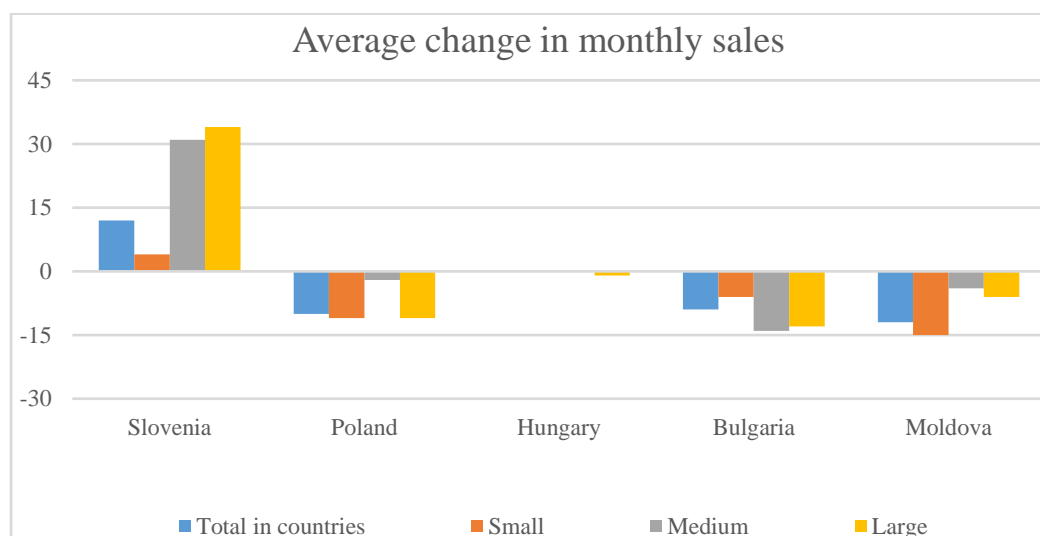


Source: McKinsey & Company survey of SMEs conducted in August 2020 (McKinsey, 2020)

Impact of sales and revenues in selected UNECE countries

The impact of COVID-19 on monthly sales of MSMEs in March/April 2021 compared to the same period last year in selected UNECE countries.

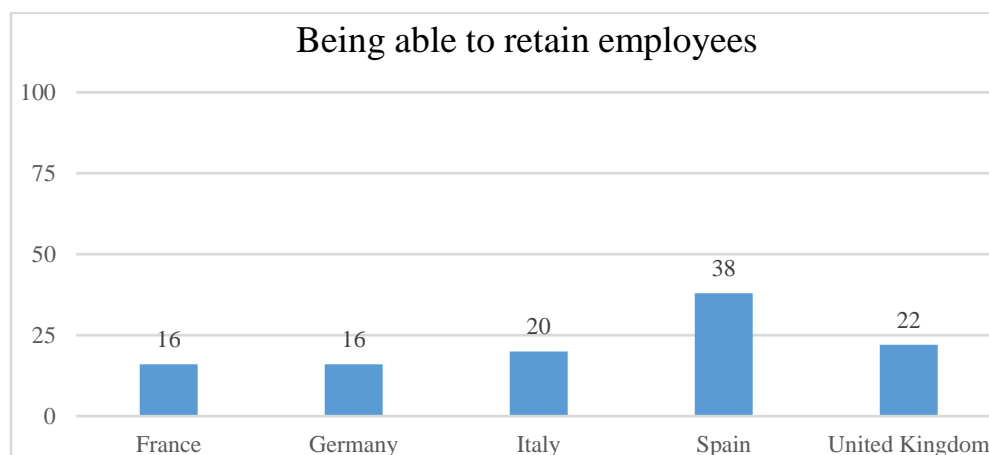
Figure 4 Average change in monthly sales in March/April 2021 compared to the same period in 2020



Source: The World Bank enterprises surveys on “COVID-19: Impact on firms” in Slovenia, Poland, Hungary, Bulgaria, and Moldova (World Bank, 2021).

Secondly, there was a stress on the MSMEs to retain or utilise their employees effectively, reasons being COVID-19 infections among employees, operational hurdles due to restrictions, and the decline in revenues. On average across countries of the UNECE Region, 14 per cent of MSMEs said they were struggling to staff their operations due in part to so many people being on sick leave or having to quarantine. Approximately one in five small and medium enterprises in Europe are concerned about retaining employees (see Figure 5 below).

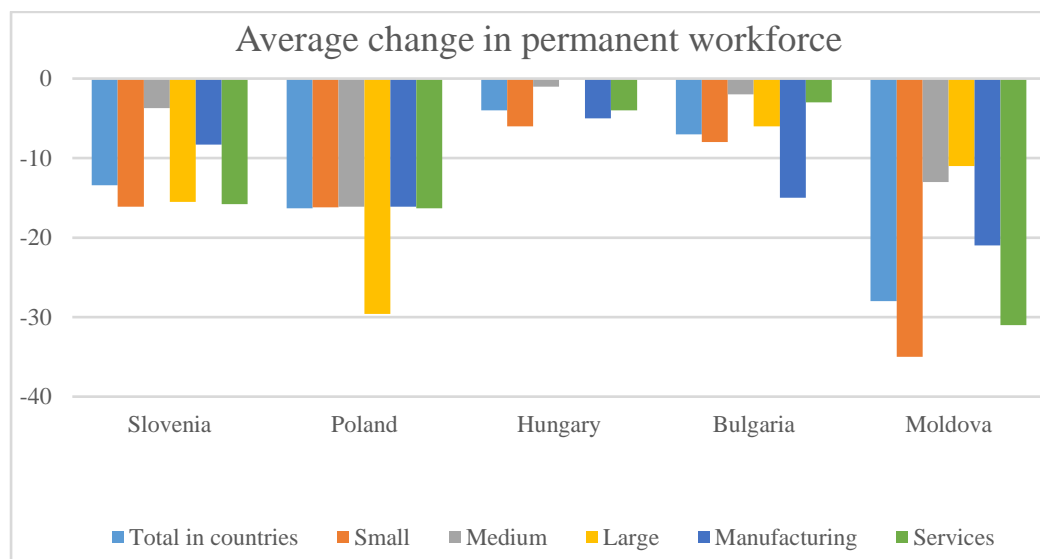
Figure 5 Retaining employees



Source: McKinsey & Company survey of SMEs conducted in August 2020; n=500 in United Kingdom, n=505 in Germany, n=502 in France, n=351 in Italy, and n=350 in Spain

Figure 6 displays a measure of the change in employment levels for the average firm compared to before the outbreak of COVID-19 in Slovenia, Poland, Hungary, Bulgaria, and the Republic of Moldova.

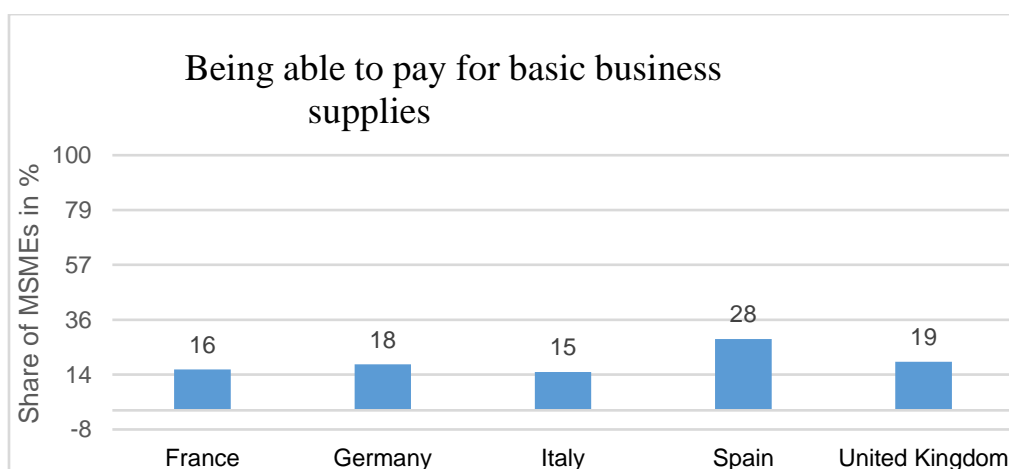
Figure 6 Average change in permanent workforce since December 2019.

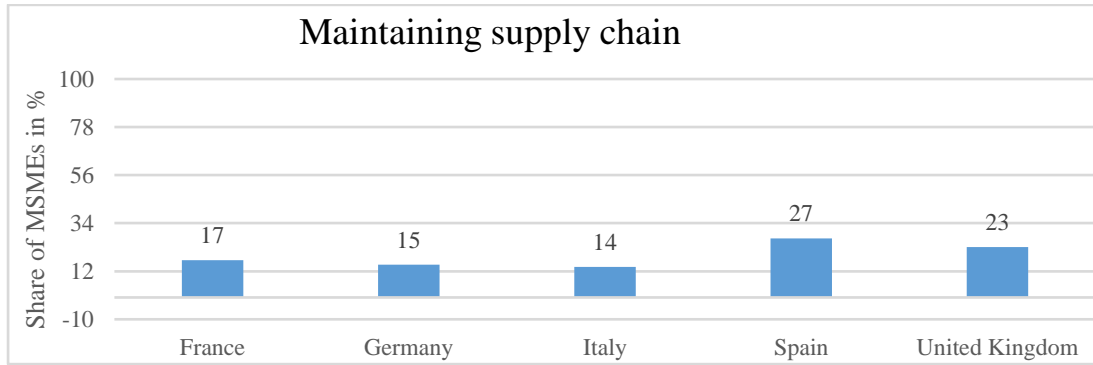


Source: The World Bank enterprises surveys on “COVID-19: Impact on firms” in Slovenia, Poland, Hungary, Bulgaria, and Moldova.

Both the revenue losses and operational hurdles lead to higher financial stress among the MSMEs. Approximately, one out of every five SMEs in Europe were concerned about meeting their payments obligations (see Figure 7 below).

Figure 7 Financial strain in MSMEs across Europe

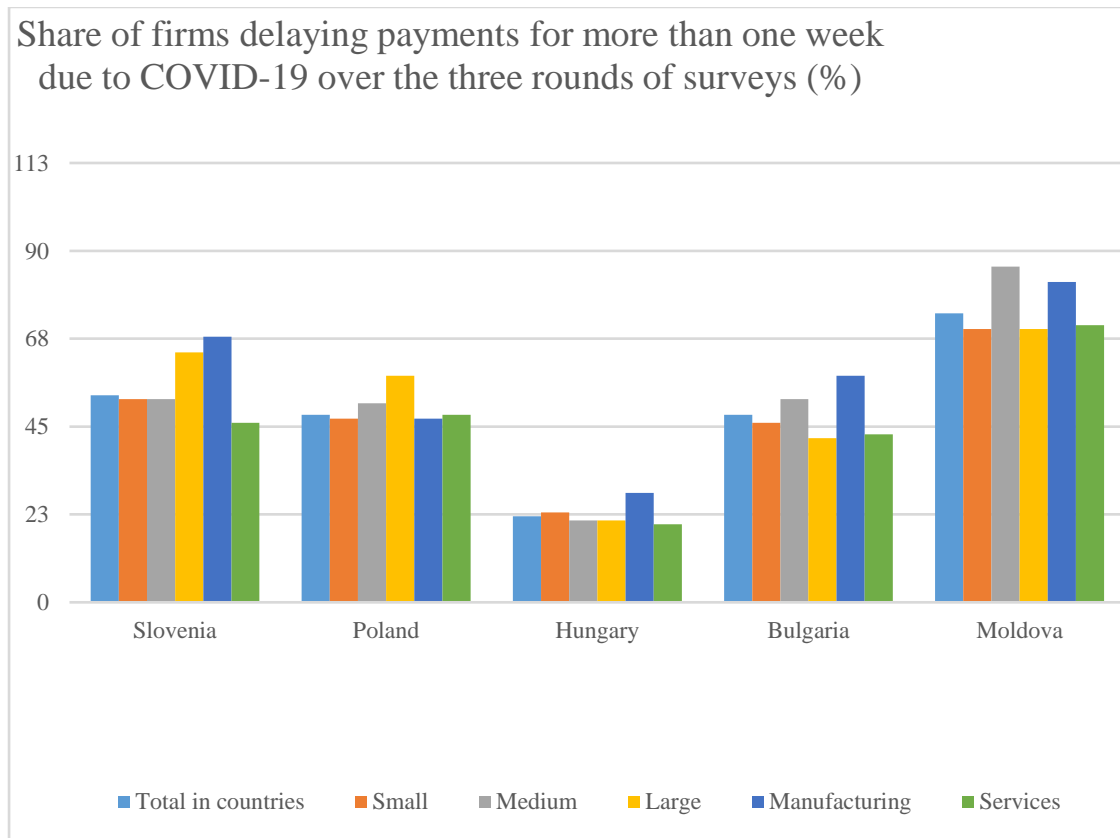




Source: McKinsey & Company survey of SMEs conducted in August 2020 (McKinsey, 2020)

As economies were increasingly affected by the COVID-19 pandemic, the private sector experienced growing financial distress. Figure 8 displays the share of firms delaying payments to suppliers, landlords, or tax authorities for more than one week due to the COVID-19 outbreak.

Figure 8 Share of firms delaying payments for more than one week due to COVID-19 over the three rounds of surveys (%)

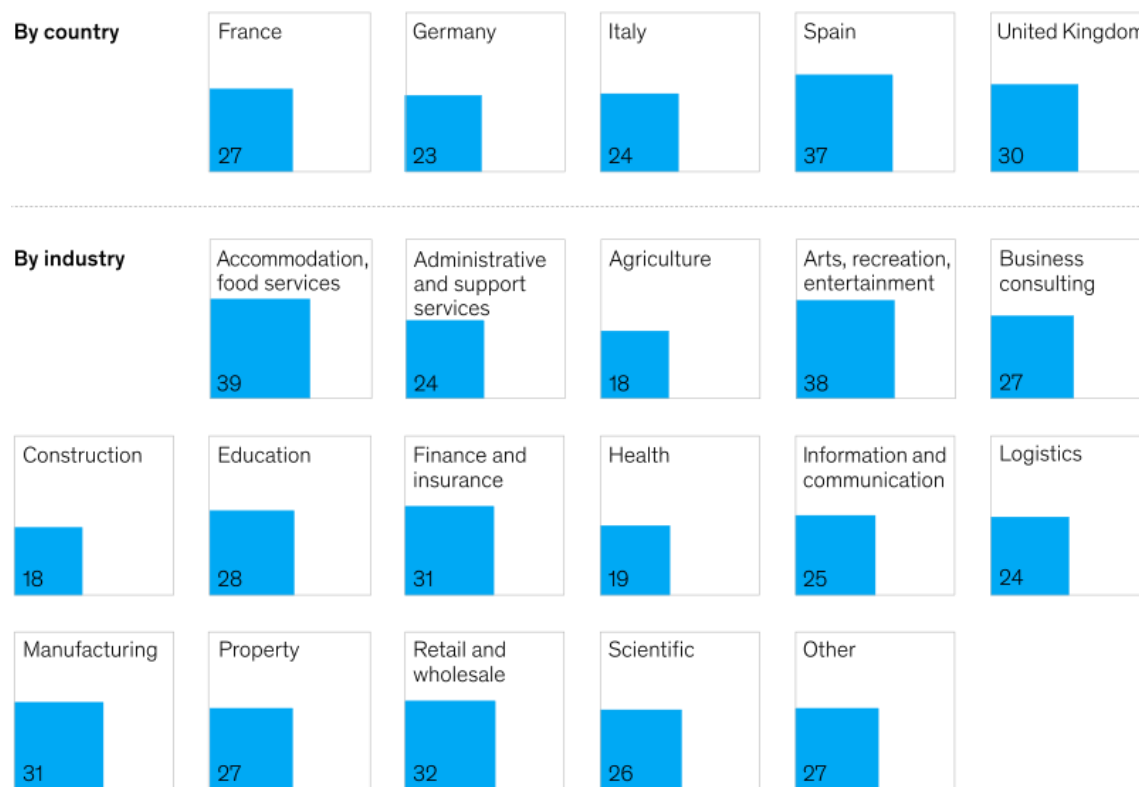


Source: The World Bank enterprises surveys on “COVID-19: Impact on firms” in Slovenia, Poland, Hungary, Bulgaria and Moldova.

With the financial and human resource problems continuing in 2021, MSMEs have faced problems with implementing their growth initiatives. On average, nearly 3 out of 10 SMEs across Europe fear they will have to postpone their growth initiatives (see Figure 9 below).

Figure 9 Share of SMEs concerned about postponement of growth projects

Respondents who are concerned about having to postpone growth projects, %

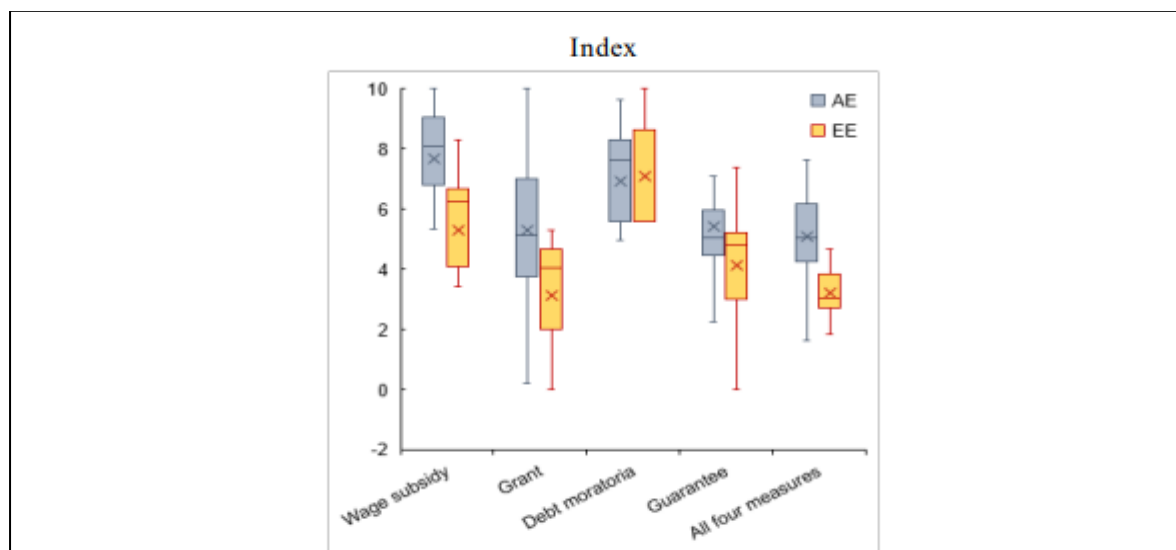


Source: McKinsey & Company survey of SMEs conducted in August 2020; n=500 in United Kingdom, n=505 in Germany, n=502 in France, n=351 in Italy, and n=350 in Spain

1.2. Policy Response

Governments of different countries provided a wide range of aid schemes to help SMEs weather the COVID-19 shock. For example, government-sponsored job retention programmes allowed firms to adjust working hours and reduce the wage bill, while maintaining employment. Government grants to firms were used to compensate firms for specific fixed costs such as rents or interest on loans. They often targeted smaller firms and the self-employed or firms with large revenue losses. Other measures granted temporary liquidity relief by providing legislative loan repayments moratoria. Figure 10 reveals substantial heterogeneity in the intensity of announced measures to support the corporate sector across different European countries.

Figure 10 Intensity of Policy Measures



Source: IMF Working Paper ‘Corporate Liquidity and Solvency in Europe during COVID-19: The Role of Policies’ by Christian Ebeke, Nemanja Jovanovic, Laura Valderrama, and Jing Zhou (IMF, 2021)

Note: AE=Advanced Europe; EE = Emerging Europe.

1.3. Effect on different industries

Different industries had significant impact during the time of COVID-19 pandemic. A number of studies were conducted in order to evaluate the effect, including the working paper published by International Monetary Fund on “Corporate Liquidity and Solvency in Europe during COVID-19: The Role of Policies” (IMF, 2021) in March 2021.

Following specific issues could be highlighted for food, manufacturing and construction industries.

Food Industries: During the second wave, the food industries have been impacted to a much lower extent than the first wave. Production of food and drink industry continued to recover in Q3 2020 with an 8.2% increase compared to Q2. On a year-on-year basis, the food and drink industries experienced only a low decline of 0.4% to Q3 of the previous year and hence nearly recovered to pre-crisis levels. Similarly, turnover for Q3 of the complete food and drink industry was only 1.1% below Q3 in 2019. .

Manufacturing: Manufacturing industries have been impacted by short-term supply shortages due to closed borders and factories in the whole UNECE region. The confinement measures during the first wave of the pandemic led to partial shutdowns of factories, as employees had to stay home or could attend the workplace in limited numbers.

Most manufacturing-based industries recovered relatively quickly during Q3 2020, as confinement measures in this large economic sector were increasingly lifted and as a result of various measures, such as the recognition of ‘essential’ sectors.

Construction: It was estimated construction industries in the euro area were operating at 25% to 30% below their normal capacity during the first wave. Until August 2020, production recovered from - 11.5% year-on-year growth to -9.1%. Continuation of the Covid-19 Pandemic could impact construction industries much less, as the industries had time to adjust to new security measures. The construction sector performance stabilised, with production in November 2020 levels recovering to 97.5% of the pre-crisis level of February 2020. Euroconstruct (an independent construction market forecasting network which brings research and consulting companies from 19 European countries together) forecasted growth of 4.1% for 2021, 3.4% in 2022, and 2.4% in 2023 (Murray P., 2020). Poland and Portugal have been forecasted with growth levels for the sector above 2019 levels from mid-2021. Netherlands, Ireland, Slovakia, France, or Sweden will experience a longer recovery period and will need more time to get back to pre-crisis levels.

The research “Impacts of the COVID-19 pandemic on EU industries” (European Parliament, 2021), conducted for European Parliament in March 2021, states following specific impacts on MSMEs in Europe:

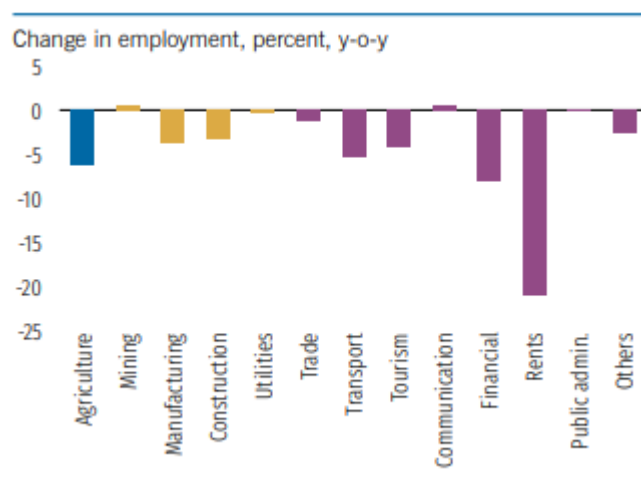
- About 90% of MSMEs reported that they are economically affected.
- 30% of total MSMEs reported that their turnover is suffering at least an 80% loss, with a European Union (EU) average of about 50%.
- Between the 4th quarter of 2019 and the 4th quarter of 2020, in EU, employment rate decreased by 1.7% (3.9 million less workers); working hours reduced by 5.3% (6.5 hours per day); unemployment rate stood at 7.3% (15.7 million more unemployed); inactive workers (not employed and not seeking for an employment) reached 17%. The pandemic pushed more than half million of self-employed to close their businesses between the 4th quarter of 2019 and the 4th quarter of 2020. Self-employed are reported across whole UNECE region to have experienced more financial difficulties, higher likelihood of get out of assignments, and larger reductions in working hours and in income than employees.

Following additional conditions could be outlined for MSMEs facing new working environment:

- Job retention schemes including short-time work schemes and wage subsidy schemes. These aimed to prevent sharp rises in unemployment as well as to lift consumer demand.
- Deferrals of payments including deferrals of income and corporate tax payments, value added tax, social security and pension payments, debt payment moratoria and waivers of rent and utility payments to preserve liquidity within SMEs by reducing operating expenses.
- Financial support via debt channels such as: extended and simplified loan guarantees, direct lending through public institutions and support for non-banking finance, through grants and subsidies, or via equity or quasi-equity, including convertible loans.

Loss of jobs in South-Eastern Europe was greatest in construction, manufacturing, hotels and restaurants, trade, and transport (Figure 11), but by the year end several of these sectors had almost recovered, especially construction, which saw more activity throughout the region except in Montenegro (UN, 2020).

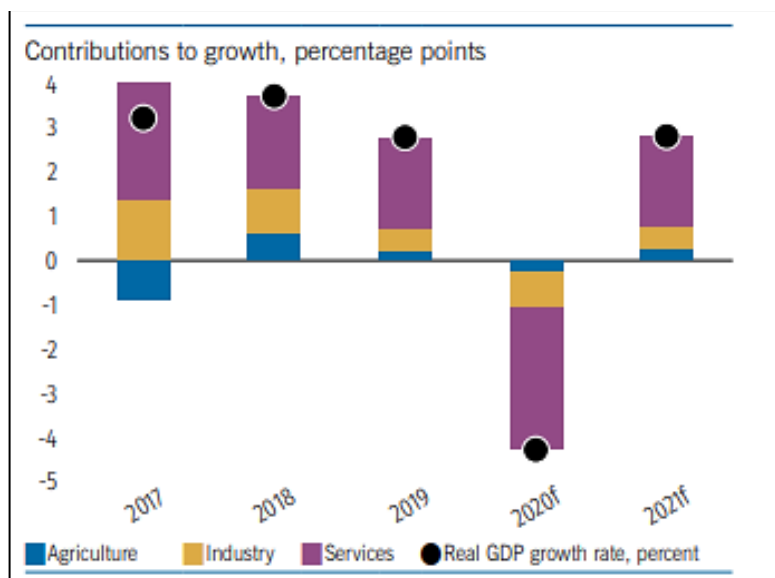
Figure 11 Job losses in different sectors in South-Eastern Europe region



Source: Western Balkans Regular Economic Report No.19 | Spring 2021 by World Bank Group (World Bank, 2021)

The Western Balkans Regular Economic Report No.19 (World Bank, 2021), prepared by World Bank Group in spring 2021, shows that for the mentioned region agriculture is most affected, particularly in Bosnia and Herzegovina, Serbia, and North Macedonia (UNECE, 2021). In Kosovo*, Albania, and Montenegro, informality is more common in the trade, services, manufacturing, and construction. Also affected in Albania are the fashion, footwear, and garment industries, and in Kosovo¹, call centers and construction companies (see Figure 12 below for more details).

Figure 12 COVID crises caused GDP variations in different sectors of Bosnia and Herzegovina



Source: Western Balkans Regular Economic Report No.19 | Spring 2021 by World Bank Group (World Bank,2021)

The contribution from the Industry sector has contracted heavily due to the COVID crises in Bosnia and Herzegovina in the financial year 2021, whereas all the industry, agriculture and services faced negative growth in financial year 2020, due to major lockdowns issued during the first wave of COVID-19.

1.4. Impact on women and their role in post-crisis recovery

There are several specific challenges related to the impact of the energy transition and post-COVID-19 socio-economic recovery on women and their role in these processes². Women’s own biases are holding them back from realizing their full potential to support society and the sustainable energy transition, especially in traditionally gender-conservative countries of the UNECE Region. Additional impact is coming from obstacles in access to finance and training to enter the formal labour market, lack of information regarding employment opportunities acts as a barrier to women’s employment in energy and other non-traditional sectors, as well as access to mentors and role models, including low representation of women in senior roles

Following opportunities for the empowering role of women in the post-COVID-19 crisis recovery could be highlighted in the framework of energy transition trends and developments across technologies, for example energy generation and storage, carbon capture, utilization, and storage, carbon circularity and material efficiency, as well as various type of consultancy and training support related to the issues of sustainable energy development.

¹ References to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999).

² Personal communication with Kankana Dubey, UNECE Consultant

During recovery from the COVID-19 pandemic, governments and businesses could incorporate an intentional focus on gender equality. The energy transition has the potential to create employment opportunities for people from a diverse array of backgrounds, skillsets, and interests.

From the perspective of the labour market it is important to ensure that labour policy frameworks support flexible working approaches for women entrepreneurs and their businesses. Additional support by local and national level policy makers should be done to empower women by helping them develop skills to build confidence to address cultural norms that may discourage women to explore opportunities in non-traditional economic sectors, like energy efficiency and renewable technologies implementation.

Women also have a special role in the sustainable energy development networking and mentoring process, by finding ways to support connections among female and male entrepreneurs, and among female members of the energy sector workforce. One option may be entrepreneurial networking including through small business initiatives and connecting large and small business.

Access to quality affordable childcare and healthcare is critical for promoting women participation in all sectors of economy, including natural resources management and energy. Local and regional governments should provide opportunities for women to access training and education programmes that improve entrepreneurship and technical skills to increase chances for success for women in the choice of their career.

1.5. Summary of activities for development of recovery strategies of MSMEs in the UNECE region during continuing COVID-19 crisis

The summary of measures taken by the selected UNECE member States to support MSMEs during the COVID-19 pandemic is presented in Annex 1. Table 1 presents progress of the activities conducted in 2021 and activities suggested in the “Guidelines and best practices for micro, small and medium enterprises in delivering energy-efficient products and in providing renewable energy equipment” (UNECE, 2020).

Table 1: Measures taken by MSME during the lockdown, by subregion

Measure	Subregion	W Europe		E Europe, SE Europe		RF, CA, C	
		2020	2021	2020	2021	2020	2021
UNECE research year		2020	2021	2020	2021	2020	2021
Communication over internet and social media		(+)	(+)	(+)	(+)	(-)	(+)
Online sales		(+)	(+)	(+)	(+)	(+)	(+)
Provision of more value-added services		(+)	(+)	(+)	(+)	(+)	(+)
Fixed growth strategy		(+)	(+)	(-)	(+)	(-)	(-)
Accessing ‘easy’ markets		(+)	(+)	(-)	(-)	(-)	(-)
IPO		(-)	(+)	(-)	(-)	(+)	(-)
Work from home		(+)	(+)	(+)	(+)	(-)	(+)

Provision of paid online trainings	(+)	(+)	(+)	(+)	(+)	(+)
Strengthening R&D portfolio	(-)	(+)	(-)	(+)	(-)	(-)
Applying for international funding	(+)	(+)	(+)	(+)	(+)	(+)
Focus on alignment with pandemic-related activities	(+)	(+)	(+)	(+)	(-)	(+)

Abbreviations: W Europe - Western Europe; E Europe - Eastern Europe; SE Europe - South-Eastern Europe; RF - the Russian Federation; CA - Central Asia; C - the Caucasus.

2. BEST PRACTICES RELEVANT FOR RESPONSE OF MSME TO COVID-19 AND POST-PANDEMIC RECOVERY

This chapter contains case studies and identifies some practical measures in place to help MSME working in the energy efficiency sector and in the area of renewable energy to access markets, financing, and advanced technologies.

2.1. Best practices in the energy efficiency sector relevant for MSMEs response to the COVID-19 crisis and post-crisis recovery

France, PowerUp. Speeding up company growth³.

French clean-tech startup PowerUp, founded in 2017, is the creator of a breakthrough technology designed to make management of lithium-ion batteries more reliable while at the same time extending battery lifetimes. PowerUp's solution is currently aimed at all manufacturers and operators who use batteries under power-cycle conditions or for backup power applications.

The company faced difficulties in initiating its commercial production due to COVID-19 related restrictions and financial hurdles during the ongoing pandemic. The company received a clean-tech start-up funding of €5 million, with plans for speeding up its growth by recruiting 25 new employees, and strengthen its leadership position in the French market, and eventually Europe and North America.

North Macedonia, HAS Engineering. Creation of an engineering systems management tool for hotels.⁴

Established in 2014, provides complete solutions for automation systems and visualization of all kinds of industrial processes and production machines, automation, and visualization of heating, cooling and ventilation systems, home automation.

The tourism sector was one of the most impacted sectors during the pandemic. Even though the accommodation capacities were reopening, there is uncertainty and a low level of trust due to the possible health dangers.

HAS Engineering focused its effort on the creation of a management tool for hotels, which will allow:

- Minimise the human contact between the guests and the personnel.
- Increased comfort for costumers.
- Hotels will reach energy savings by elimination of the unwanted energy consumption.

Sweden, Northvolt. Construction of first stage of battery production of 16 gigawatt hours⁵.

Founded in 2016, Northvolt is a Swedish battery developer and manufacturer, specializing in lithium-ion technology for electric vehicles. During COVID-19, Northvolt was impacted by the disruptions in workforce for manufacturing and the supply chain for raw materials and end product delivery.

As a recovery funding, Northvolt received a loan of SEK 3.7 billion (€370 million) from the European Investment Bank as recently as May 2021 to start a construction of the first stage of battery production of

³ <https://www.eu-startups.com/2020/11/french-cleantech-startup-powerup-nabs-e5-million-to-grow-across-france-and-europe/>

⁴ <https://www.has.mk/mk/>

⁵ <https://techcrunch.com/2021/06/09/swedish-company-northvolt-raises-2-75b-to-accelerate-european-battery-production/>

16 GWh, equivalent to a production sufficient for 200,000-300,000 cars which was halted due to COVID-19 pandemic.

The Netherlands, SymPower. Enhancing market access across Europe.⁶

SymPower, founded in 2015, is a demand response solution provider for energy efficiency and helps maintain a stable electricity system by balancing supply and demand in the face of increasingly unstable supply from solar and wind sources and demand from e-mobility and electric heating. The company is active in Finland, Sweden, and the Netherlands, counting transmission system operators Fingrid, Svenska Kraftnät and TenneT as current customers. It also partners with a leading European energy company Vattenfall in Sweden.

SymPower received €5.2 million from early investors for enhancing its market access across Europe, as the renewable energy market is expanding rapidly. The company has set up remote working models for its employees with cloud-based computing solutions used in its main product application, which helped it thrive during this ongoing pandemic, as the company's assets, operations, sales and customer support systems are all digitalized.

2.2. Best practices in the area of renewable energy relevant for MSMEs response to the COVID-19 crisis and post-crisis recovery

Belgium, Parkwind N.V. Implementation of renewable energy project outside the country.⁷

Parkwind N.V., founded in 2012, is committed to making green energy available and affordable to everyone through its integrated approach and global partnerships. Parkwind finances, develops, and operates its wind energy farms in Belgium and across Europe with its current projects being initiated in Ireland and Germany.

The company's operations suffered from COVID-19 restrictions, as installation of the wind farms were affected due to both logistics and enforced lockdowns at the locations. The company adopted digitalization measures like using IOT based monitoring and control systems at the site to conduct operations and maintenance, and videoconferencing solutions for communication system with both the workforce and the clients to engage them in the recovery process.

In March 2021, Parkwind has secured funding from multiple financial institutions to implement its first renewable energy project outside the country. The company will use a €150 million loan from the European Investment Bank (EIB) to construct its €675.9 million Arcadis Ost 1 wind farm. Offshore installation work is due to begin in 2022, and the wind farm, which will generate power for the equivalent of 290,000 households, is expected to be fully operational in 2023. The project is set for rollout once Parkwind secures regulatory approval from the government of the federal state Mecklenburg- Western Pomerania in Germany in March 2021.

North Macedonia, Eco Solar. New solar dryer for fruits and vegetables.⁸

Eco Solar is a company established in 1995. The main activities of the company are the production of solar dryers for agriculture, air solar collectors (for obtaining hot air), installation of solar hot water systems, and installation of photovoltaics.

Due to the crisis, the company focused its effort on the development of a solar dryer with a bigger capacity than it was available before 2020 in its product portfolio. With the help of solar energy dries

⁶ <https://www.eu-startups.com/2021/03/dutch-cleantech-startup-sympower-raises-e5-2-million-to-boost-the-european-energy-transition/>

⁷ <https://parkwind.eu>

⁸ <https://ecosolar.mk>

fruits, vegetables, teas, herbs, mushrooms, etc. New product became in high demand from customers and increased income of the company.

Sweden, Exeger. Flexible solar cells for self-powered gadgets.⁹

Founded in 2009, Exeger has developed flexible solar cell technology, which can be used to power gadgets. So far, the company has used its technology to power a self-charging bike helmet with a safety light and a pair of wireless headphones.

The company raised \$38 million to expand back in May 2020 to ramp up production of its flexible solar cells for self-powered gadgets. Exeger says its planned second factory in Stockholm will allow it to increase its manufacturing capacity tenfold by 2023, helping it target a broader array of markets sooner and accelerating its goal of mass adoption of its tech.

2.3. Case studies on practical measures for MSMEs in getting access to markets, financing

Central Asia, EBRD. Green recovery and climate action in Central Asia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.¹⁰

The European Union and European Bank for Reconstruction and Development (EBRD) are joining forces to provide more financial support to the municipal, infrastructure and industrial sectors affected by the economic crisis caused by the coronavirus pandemic in Eastern Europe and the Caucasus. The loans will be used for sustainable investments in green city infrastructure, greener logistics chains, energy efficiency and green technology transfers in industrial processes, commercial operations and buildings. Climate Action Network of Eastern Europe, Caucasus and Central Asia addressed governments of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan in their “Green recovery and climate action in Central Asia” to propose measures for green recovery from the COVID-19 crisis.¹

Germany, Lumenaza. Multi-stakeholder cooperation for fundraising for establishing green utilities to launch customer-centered energy services.¹¹

Lumenaza, founded in 2013, a green-energy-as-a-service platform company which connects producers and consumers of green distributed energy, providing everyone access to the energy market. The comprehensive platform covers the full end-customer life cycle for electricity products and comes with a suite of powerful software applications, such as advanced billing, a product catalog and a virtual power plant (VPP). While the product catalog enables the simple and fast configuration of green energy offerings and pricing models, the virtual power plant maximizes the value from even the smallest renewable assets.

Since the company offers digitalization services, it was able to adopt to the remote working since the pandemic began in March 2020. The company expanded its marketing through digital marketing tools and partnered with other companies to recover effectively.

In June 2021, Lumenaza has raised €6.5 million in its Series B funding and will use the funding to expand across Europe and to empower both new and established green utilities to launch customer-centred energy services. Other than availing the funding, Lumenaza, as a part of its COVID-19 recovery, has established partnerships with other MSMEs to expand the scope of work. The partnership with”

⁹ <https://techcrunch.com/2021/05/11/exeger-takes-38m-to-ramp-up-production-of-its-flexible-solar-cells-for-self-powered-gadgets/>

¹⁰ <https://www.ebrd.com/news/2020/ebrd-and-eu-to-further-support-coronavirus-response-and-recovery-in-eu-neighbourhood.html>

¹¹ <https://www.eu-startups.com/2021/06/berlin-based-lumenaza-raises-e6-5-million-to-expand-its-green-energy-as-a-service-platform-across-europe/>

Kiwigrid Ltd”, signed in November 2020, is envisaged to offer manufacturer-independent home energy management solutions with tailored green electricity flat rate for the users. The partnership with “Phoenix Corporate Services GmbH” during August 2021, was set up for providing clean energy access through a non-profit organization named “Wattvolt e.V.” to the end users having affordability concerns.

Russian Federation, Fund for Innovation Assistance. Support of development and COVID-19 recovery for MSME in science and technology sectors.¹²

The Fund for Innovation Assistance was established in the form of a federal state budgetary institution. The Fund implements innovative development programmes aimed at creating new and developing existing high-tech companies, commercializing the results of scientific and technical activities. There is a possibility to submit applications from small and medium-sized enterprises to finance projects up to 25 million rubles. Experts of the Fund conducts professional examination of business projects, prepared by entrepreneurs. Financial recourses are granted for the development of the enterprise in case of approval. The focus of the Fund is to support research and development activities in science and technology sectors, including energy-oriented companies, especially during the COVID-19 outbreak.

Ukraine, COVID-19 Business Clinics.¹³

An EU initiative EU4Business (EU4Business, 2021), helps SMEs in the six countries of the Eastern Partnership region to realize their full potential and boost economic growth. It launched COVID-19 Business Clinics to help Ukrainian small and medium-sized enterprises (SMEs) respond to the strained economic conditions resulting from the COVID-19 pandemic. The project is jointly financed by the EU and the German government and implemented by German Agency for International Cooperation (GIZ).

COVID-19 Business Clinics are aimed to satisfy the needs of Ukrainian SMEs to survive the crisis. The Business Clinics are offering a range of free of charge online services that include: short individual and group consultancy, webinars, trainings and forums, vouchers for in-depth business consultancy.

The consultancy is focused on business strategy, marketing, innovation, digitalization, export and available support instruments from the government and other organizations. In addition, selected applicants are provided with a voucher of UAH 30,000 (approximately \$ 1,100) for in-depth counselling. This means experts will work with a particular company to individually solve its specific tasks and increase productivity. The first COVID-19 Business Clinics in Ivano-Frankivsk, Kharkiv, Vinnytsia, Dnipro, Chernihiv, and Mykolaiv already offer support to Ukrainian entrepreneurs.

¹² <https://fasie.ru>

¹³ <https://eu4business.eu/news/covid-19-business-clinics-open-for-smes-with-eu-support/>

3. UPDATED GUIDELINES FOR MSME IN THE UNECE REGION

Specific COVID-19 impact compensation measures were analyzed and presented in the “Guidelines and best practices for micro-, small and medium enterprises in delivering energy-efficient products and in providing renewable energy equipment” (UNECE, 2020). Current research was focused on assessment of relevance of the earlier proposed measures in UNECE member States, during the continuing COVID-19 pandemic outbreak. Key findings are presented below in a format of updated Guidelines for MSMEs in the UNECE region, focused on COVID-19 recovery.

Following action steps could be taken by MSMEs in the UNECE region as well as the status across the sub-region are presented in the Table 5 below.

Table 2. Updated COVID-19 recovery action steps for MSME in the UNECE region

No.	Action step	Description	W Europe	E Europe, SE Europe	RF, CA, C
1	Supporting visibility of the recovery actions for to the existing and new investors and clients	It is important to continue communication and outreach to investors, clients, and partners by disclosure of technical capacity and financial status of the company during the continuing COVID-19 pandemic. Supporting visibility of the recovery actions for the existing and new investors and clients will show the responsibility of the company and potentially could help to involve new consumers of company’s products and services.	Action started. Dissemination support required.	Required promotion for the start.	Required promotion for the start.
2	Social media activity	Good results in terms of social media activity have been already achieved by MSMEs across the UNECE region using a number of available platforms to disseminate information about their products. Further development should be focused on elaboration of more user-friendly interfaces for distribution and service maintenance of the products, as well continuous on-line consultancy support in case of need, that should be conducted in parallel with common social media promotion.	Action started. Dissemination support required.	Action started. Dissemination support required.	Action started. Dissemination support required.

3	Getting additional funding	Getting additional funding became a big challenge for the MSMEs during the long lasting COVID-19 pandemic lockdowns. Due to limitations of personal contacts and travel restrictions - existing promotion measures were not working at the same level of efficiency. It is important to maintain the key service and manufacturing priorities in accordance to the requirements existing MSME support programs, that are available at the local or national level, as well as international funds. It is also recommended to conduct focused capacity building trainings for technical and procurement MSME specialists, in order to present key procedures and possibilities of the available financing mechanisms.	Action started. Dissemination support required.	Action started. Dissemination support required.	Action started. Dissemination support required.
4	Getting access to the “easy” markets	There is still an issue with getting access to the “easy” markets, which requires sometimes additional changes in the final product or service, including price reduction, which requires sometimes extra investments for the startup or R&D work. MSMEs should follow a clear action plan, focused on optimization of production expenses and prioritizing access to the profitable markets.	Required promotion for the start.	Required promotion for the start.	Required promotion for the start.
5	Embrace new technologies while relying on the existing human resources	MSMEs could continue to temporarily embrace new technologies while relying on the existing human resources, to keep businesses running without losing employees, especially in projects where remote assistance can be provided. This is still considered among the most cost-effective ways of the functioning during the continuing pandemic.	Action started. Dissemination support required.	Action started. Dissemination support required.	Required promotion for the start.

6	Introduction of COVID-19 protection products and consultancy services	The market of COVID-19-related products shows constant growth during last year and still has room for extension. Positive experience of companies, which introduced COVID-19 protection products and consultancy services, could become a good example for MSMEs of finding new markets and potential cooperation partners.	Action started. Dissemination support required.	Action started. Dissemination support required.	Action started. Dissemination support required.
7	Conduct and participate in online trainings	It is still strongly recommended for MSMEs with expertise in their sectors to provide online trainings and participate in relevant ones. These could be commercial or conducted for free (or at a nominal fee) or discussions in a format of knowledge sharing, that will support engagement of the employees, promote companies in their respective sectors and facilitate per-to-peer best practices exchange, in order to support rapid recovery after the pandemic.	Action started. Dissemination support required.	Required promotion for the start.	Required promotion for the start.

Abbreviations: W Europe - Western Europe; E Europe - Eastern Europe; SE Europe - South-Eastern Europe; RF - the Russian Federation; CA - Central Asia; C - the Caucasus.

CONCLUSIONS AND RECOMMENDATIONS

Most of the countries in the UNECE region have adopted various economic and operational tools for recovery from the COVID-19 crisis, helping MSMEs in the energy efficiency and renewable energy equipment sector to boost their growth and to bring the clean energy transition across the region. Intervention measures like low interest financing, innovation grants and funds, operational relief funds, provision of subsidized/common manufacturing units and workplaces, etc. are being issued for supporting MSMEs during the COVID-19 crisis.

Following conclusions according to COVID-19 recovery actions taken in 2020-2021 by MSMEs in the UNECE region and possible further supporting activities could be highlighted based on the results of conducted analysis (presented in Chapter 2 and Annex 1):

- **Communication over internet and social media.** In 2020-2021 most of the UNECE Member States showed strong progress in development and increase of participation level in various relevant online-based platforms and databases.
- **Online sales.** Rapid increase of the online sales was shown for all MSMEs, including the Energy Efficiency and Renewable Energy oriented, including relevant changes in the supply and delivery chains.
- **Provision of more value-added services.** A number of different collaboration programmes were established across the UNECE member States between MSMEs and national stakeholders, international agencies, universities and companies from different industries.
- **Support growth strategy.** For most of the European countries there were established number of technical and financial advisory support activities. Regional and/or national programmes for MSME to get advice and technical support in application for funds are still not so well implemented in the Central Asian and the Caucasus regions.
- **Accessing ‘easy’ markets.** Due to remaining COVID-19 travel and transport restrictions there is a limit of possible ways to increase access to the “easy” markets, or even just increase the sales geography of the proposed product or service. These issues are still relevant for most of the countries from Eastern and South Eastern Europe, Russian Federation, Central Asia and Caucasus.
- **Work from home.** In 2020-2021 the remote work modality became a “new normal” for most of the MSME across the UNECE Member States.
- **Provision of paid online trainings.** A number of training programmes were set up by business associations, national and international stakeholders and private companies in order to share experience and success stories in running a business during the pandemic.
- **Strengthening R&D portfolio.** The research and development portfolio of the MSME increased due to improved communications and work from home modalities, which resulted in extra time for using of R&D capacities for improvement of the production or service provided. Additional mentoring and capacity building support is required for the companies from the Central Asian and the Caucasus regions.
- **Applying for international funding.** Many MSMEs from the UNECE region have access to local and international financing. There are established mechanisms for communication with relevant national and international stakeholders to initiate capacity-building consultations, or to browse through available platforms of regional, national and international funding programmes.
- **Focus on alignment with pandemic-related activities.** MSMEs from all UNECE member States showed their alignment with pandemic-related activities by accepting relevant sanitary rules, social distancing and employees’ vaccination requirements in accordance with national health and safety protocols.

Further additional support of initiated activities is required for most of the identified action steps outlined in Chapter 3 in accordance with initial suggestions prepared in the “Guidelines and best practices for micro-, small and medium enterprises in delivering energy-efficient products and in providing renewable energy equipment” (UNECE, 2020).

The following recommendations are derived from the findings of this study:

- **Supporting visibility of the recovery actions for the existing and new investors and clients.** It is important to continue communication and outreach to investors, clients, and partners by disclosure of technical capacity and financial status of the company during the continuing COVID-19 pandemic.
- **Social media activity.** Further development should be focused on elaboration of more user-friendly interfaces for distribution and service maintenance of the products, as well continuous on-line consultancy support in case of need, that should be conducted in parallel with common social media promotion.
- **Getting additional funding.** It is important to maintain the key service and manufacturing priorities in accordance to the requirements existing MSME support programs, that are available at the local or national level, as well as international funds. It is also recommended to conduct focused capacity building trainings for technical and procurement MSME specialists, in order to present key procedures and possibilities of the available financing mechanisms.
- **Getting access to the “easy” markets.** MSMEs should follow a clear action plan, focused on optimization of production expenses and prioritizing access to the profitable markets.
- **Embrace new technologies while relying on the existing human resources.** MSMEs could continue to temporarily embrace new technologies while relying on the existing human resources, to keep businesses running without losing employees, especially in projects where remote assistance can be provided
- **Introduction of COVID-19 protection products and consultancy services.** Positive experience of companies, which introduced COVID-19 protection products and consultancy services, could become a good example for MSMEs of finding new markets and potential cooperation partners.
- **Empower and support women during the post-crisis recovery.** From the perspective of the labour market it is important to ensure that labour policy frameworks support flexible working approaches for women entrepreneurs and their businesses. Additional support by local and national level policy makers should be done to empower women by helping them develop skills to build confidence to address cultural norms that may discourage women to explore opportunities in non-traditional economic sectors, like energy efficiency and renewable technologies implementation.
- **Conduct and participate in online trainings.** It is strongly recommended for MSMEs with expertise in their sectors to provide online trainings and participate in relevant once.

REFERENCES

EU4Business (2021). COVID-19 Business Clinics open for SMEs with EU support. Germany, Berlin: GIZ. Available at <https://eu4business.eu/news/COVID-19-business-clinics-open-for-smes-with-eu-support/>

European Parliament (2021). Impacts of the COVID-19 pandemic on EU industries. Brussels, Belgium: European Parliament. Available at [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662903IPOL_STU\(2021\)662903_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662903IPOL_STU(2021)662903_EN.pdf)

IMF (2021). Corporate Liquidity and Solvency in Europe during COVID-19: The Role of Policies. European Department. Available at <https://www.imf.org/-/media/Files/Publications/WP/2021/English/wpica2021056.ashx>

ITC (2021). Empowering the Green Recovery. Geneva, Switzerland: International Trade Centre. Available at https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/ITC_SMECO-2021.pdf

McKinsey (2020). COVID-19 and European small and medium-size enterprises. Available <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-european-small-and-medium-size-enterprises-how-they-are-weathering-the-storm>

OECD (2020a). Coronavirus (COVID-19): SME policy responses. Paris, France: Organisation for Economic Co-operation and Development. Available at <https://www.oecd.org/coronavirus/policy-responses/coronavirus-COVID-19-sme-policy-responses-04440101/>

OECD (2020b). Financing SMEs and Entrepreneurs 2020 : An OECD Scoreboard. Paris, France: Organisation for Economic Co-operation and Development. Available at <https://www.oecd-ilibrary.org/sites/986e4c82-en/index.html?itemId=/content/component/986e4c82-en>

OECD (2021). COVID-19 and greening the economies of Eastern Europe, the Caucasus and Central Asia. Paris, France: Organisation for Economic Co-operation and Development. Available at https://read.oecd-ilibrary.org/view/?ref=1060_1060510-5trfx14lll&title=COVID-19-and-greening-the-economies-in-EECCA&_ga=2.132407886.1568281044.1627290705-1278230606.1627290704

SME United (2021). Implications of COVID-19. Brussels, Belgium: SME United. Available at <https://www.smeunited.eu/admin/storage/smeunited/210409-socialimpact-covid.pdf>

Southernwood J., Papagiannis G.K., Güemes E.L. (2021). Energy Efficiency Solutions for Small and Medium-Sized Enterprises. Presented at the Sustainable Places 2020, Online, 28–30 October 2020. Available at <https://www.mdpi.com/2504-3900/65/1/19>

World Bank (2021). Subdued Recovery. Washington DC, USA: World Bank, Western Balkans, Regular Economic Report No.19. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/35509/Subdued-Recovery.pdf?sequence=1&isAllowed=y>

CEVES (2020). The COVID-crisis and Serbia's SMEs: Assessment of Impact and Outline of Future Scenarios. Belgrade: Centre for Advanced Economic Studies. Available at https://ceves.org.rs/wp-content/uploads/2020/11/WB-COVID-19_-Report-final.pdf

UN (2020). Assessment of the impact of COVID-19 on the business sector and the growth prospects of the Montenegrin economy. Podgorica, Montenegro: United Nations. Available at <https://montenegro.un.org/en/54399-assessment-impact-COVID-19-business-sector-and-growth-prospects-montenegrin-economy>

UNECE (2020). Guidelines and best practices for micro, small and medium enterprises in delivering energy-efficient products and in providing renewable energy equipment. Geneva, Switzerland: United Nations Economic Commission for Europe. Available at <https://unece.org/sustainable-energy/publications/guidelines-and-best-practices-micro-small-and-medium-enterprises>

UNECE (2021a). Guidelines and best practices for micro-, small and medium enterprises in North Macedonia in delivering energy-efficient products and in providing renewable energy equipment. Geneva, Switzerland: United Nations Economic Commission for Europe. Available at <https://unece.org/sites/default/files/2021-01/Guidelines%20Best%20Practices%20EE%20RE%20N%20Macedonia.pdf>

UNECE (2021b). Guidelines and best practices for micro-, small and medium enterprises in Georgia in delivering energy-efficient products and in providing renewable energy equipment. Geneva, Switzerland: United Nations Economic Commission for Europe. Available at https://unece.org/sites/default/files/2021-03/Georgia_MSME_EE_RE_Report.pdf

ANNEX 1 – MEASURES TAKEN BY THE SELECTED UNECE MEMBER STATES TO SUPPORT MSME DURING THE COVID-19 PANDEMIC

Albania

SMEs created 80.3 % of all employment, corresponding to almost four out of five Albanian jobs, and generated more than two thirds (68.3 %) of total value added.

Despite being the backbone of the Albanian economy, micro, small and medium sized enterprises (MSMEs) face difficulties in accessing finance which impedes their growth. MSMEs

- In overall, 47% of companies totally stopped work during COVID-19, while the other 53% have continued to work totally or partly.
- Among all economic sectors, tourism is the most affected with a 75% activity closure. At contrary, agriculture continued to work partly or totally at 81.
- 80% of companies estimate more than 20% decline of their annual turnover.
- Accommodation, food service activities, and travel agency/tour operators, associated with tourism sector are the most affected by the COVID-19 situation, as expected due to government restrictions to their activities.
- 4% of tourism activity has totally or partly stopped working.
- To ensure business continuity, in overall 34% of companies declare that will use previous accumulated revenue, while 32% will cut costs, mainly lay off employees, decline productions etc

- US\$100 million appropriated for companies struggling to pay salaries to their employees.
- US\$65 million appropriated for most immediate needs: destitute individuals, small businesses, possible unemployment.
- Rescheduling of tax liabilities on the basis of corporate income tax for all business entities whose total turnover ranges between US\$2 million and US\$14 million

Armenia

MSMEs accounted for 99 per cent of active enterprises in 2017, with micro enterprises representing the largest segment (94 per cent of total MSMEs).

MSMEs accounted for 66 per cent of total employment, 62 per cent of total turnover and 60 per cent of total value added generated by the enterprise sector during 2017.

The outbreak of the COVID-19 pandemic caused Armenian GDP to plummet by 5.3 percent on average year-over year, in January-August 2020.

- The difficulties surrounding transport and cross-border trade inflated transport costs.
- Shortage of supply was faced by maximum MSMEs.
- The majority of the MSMEs reduced production activities under the weight of dwindling demand and supply shortages.
The MSMEs were in debt, as they postponed business expenditures and loan repayments to cope with falling revenues

Tax: -Exemption of advance tax payments for the second quarter of 2020. Further, advance tax payments for the third quarter of 2020.

Custom Duties: - As of 21 April 2020, the penalties for non-payment of customs duties were reduced to 0.04 per cent for each overdue day, instead of the previous 0.075 per cent.

Enterprise support: -

- Subsidized loans for SMEs involved in 1) manufacturing; 2) accommodation and catering; 3) transportation and storage; 4) tourism services; 5) other customer services; 6) healthcare.
- Subsidized loans for micro, small and medium enterprises.
- Grants for supporting the tourism sector

Employment: -

- One-time cash payments to employee, at least the amount of minimum wage.
- Temporary employment in the agricultural sector
Assistance provided in a lump-sum amount in the amount of minimum wage in 13 Coronavirus-affected sectors of economies

Bulgaria

SMEs accounted for 65.2 % of value added and 75.4 % of employment. The largest SME sectors are wholesale and retail trade and manufacturing

	<ul style="list-style-type: none"><input type="checkbox"/> The pandemic dragged the Bulgarian economy into a recession in 2020.<input type="checkbox"/> GDP contracted by 4.2 percent, as private consumption.<input type="checkbox"/> The hardest hit sectors were tourism and related activities. <p>Moderate increase in unemployment.</p>	<p>Enterprise support</p> <ul style="list-style-type: none"><input type="checkbox"/> Unsecured working capital facility of up to BGN 300,000.<input type="checkbox"/> Bulgarian micro- and small-sized enterprises registered prior to 1 January 2019 as per the Bulgarian Commercial Act or Cooperatives Act could receive a grant in the range of BGN 3,000 (approximately EUR 1,534) to BGN 10,000 (approximately EUR 5,113) but not more than 10% of the company's net turnover for 2019. <p>Employment</p> <p>Salary subsidies and pension supplements for the employees</p>
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Czech Republic

In the Czech Republic 'non-financial business economy', SMEs play a particularly important role. In the Czech Republic, SMEs accounted for 56.0% of total value added and 66.4% of employment. SMEs employ an average of 2.4 people. The most important SME sectors, both in terms of employment and value added, are manufacturing and wholesale and retail trade.

	<p>Covid-19 weighed on fundamentals of the Czech economy that had supported growth until 2020 - domestic demand, tax revenues and exports.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Decline in domestic demand, tax revenues and exports resulted in the contraction Czech economy by a projected 5.6% in 2020. <input type="checkbox"/> An increase in food prices, leading to a higher inflation rate of 3.2% in 2020. <input type="checkbox"/> Czech exports continued to fall as the automotive industry - accounting for the largest share of exports - first had to halt activity for at least a month at the height of the pandemic and has struggled adapting new regulatory challenges and technologies. <p>Rise in unemployment by 3.4%.</p>	<p>Tax relief: -</p> <ul style="list-style-type: none"> <input type="checkbox"/> Waiver of income tax advance payments due on between 15 October and 15 December 2020. <input type="checkbox"/> Waiver of advance payments for the road tax due on 15 April 2020, 15 July 2020, 15 October 2020, and 15 December 2020. <input type="checkbox"/> Waiver of interest for a late payment of Value added tax (VAT) or September, October, and November 2020 and third quarter 2020 under the condition that the due VAT was paid by 31 December 2020. <p>Enterprise support</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compensation bonus for the self-employed and small limited liability companies. <input type="checkbox"/> Loan guarantees by Export Guarantee and Insurance Company (EGAP) to large companies with more than 250 employees. <input type="checkbox"/> Government opened other subsidy programmes to compensate subjects in sport, culture, transport etc. <p>Employment</p> <p>The employee received compensation of 80%-100% calculated from the average reduced income. (The cause of the problem is on the employee's side or employer's side) during quarantine</p>
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Georgia

Georgia supports Georgian companies against the coronavirus. In May 2021, The World Bank approved the financial support of EUR 85 to micro-, small and medium sized enterprises in Georgia impacted by the COVID-19 pandemic.

<p>The coronavirus pandemic affects the economy, especially SMEs, on both the supply and demand sides.</p> <p>Due to the lack of means for most of the MSMEs to fight the pandemic, the Government introduced the anti-crisis plan aiming at improving the social status of citizens and certain measures for business sector that would help businesses to maintain the economic stability during the pandemic and assist in the recovery</p>	<p>The coronavirus pandemic affects the economy, especially SMEs, on both the supply and demand sides.</p> <p>On the supply side: companies experience a reduction in the supply of labour, as workers were unwell or needed to look after children or other dependents while schools are closed, and movements of people are restricted.</p> <p>On the demand side: a dramatic and sudden loss of demand and revenue for SMEs severely affects their ability to function, and/or causes severe liquidity shortages. Furthermore, consumers experience loss of income, fear of contagion and heightened uncertainty, which in turn reduces spending and consumption.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Many companies were forced to shut down after running out of stock/reserves. <input type="checkbox"/> Raw material shortages due to restrictions and delays in delivery of supplies caused by COVID-19 crisis in exporting countries. <input type="checkbox"/> Transportation costs increased, due to reduction of transport operations. <p>Increased operational costs.</p>	<p>On 24 April 2020, the Prime Minister of Georgia presented the Anti-crisis Economic Plan, covering already implemented activities, as well as the future measures, which in some instances required several legal changes.</p> <p>Under the programme, the Government was financing consumption of electricity up to 200 kWh and natural gas up to 200 m³ per month.</p> <ul style="list-style-type: none"> <input type="checkbox"/> From 1 March to 31 August 2020, Enterprise Georgia co-financed up to 80 per cent of the annual interest rate on loans issued to small and medium-sized hotels. <input type="checkbox"/> Employed persons who lost their job or were placed on an unpaid leave following the spread of the coronavirus pandemic received 1,200 GEL over the course of 6 months. <input type="checkbox"/> Additional GEL 500 million was allocated to support businesses, including a credit-guarantee scheme. <input type="checkbox"/> Exempt from personal income tax. <input type="checkbox"/> Property tax for employees in the tourism sector abolished by 2021. <input type="checkbox"/> Income tax for employees in tourism sector written off in full.
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Hungary

The European Commission reports 7 percent contraction in 2020, followed by 6.3 percent growth in 2021.

According to the preliminary data of the Hungarian Central Statistical Office, at the end of 2017, 724 000 enterprises operated in Hungary, 99.86% of which — i.e., 723 000 enterprises — qualified as SMEs.

Budapest Chamber of Industry and Commerce (BKIK) noted that one-third of the companies have their employees working from home, 19 percent have sent them on unpaid leave and 12 percent on paid leave.

BKIK said 60 percent of the companies have experienced a decline in orders and 40 percent a drop in the number of guests, customers, consumers and clients

- The Hungarian Government announced strategy the Economy protection action plan. Where it has allocated EUR 1.1 bn on tax measures.
- The Economic Development and Innovation Operational Programme (EDIOP) is one of the main sources of financing the Economy protection action plan their first calls for proposals were focused on wage support
- Besides job protection the technological development of SMEs came also into focus.

SMEs were supported from equipment, technologies — especially if they are using renewable energy — through purchasing licences, know-how and different kinds of consultations and trainings to real estate rent and working capital.

Montenegro

Prior to the COVID-19 pandemic, Montenegro had already faced economic slowdown in 2019, driven by the lower domestic demand.

Montenegro entered the COVID-19 crisis with the continued trend of the number of unemployed hovering slightly above 15% (35,429 people or 15.34% based on the data from the National Employment Office).

- The World Bank estimates an economic downturn in 2020 in the range of -5.6% to -8.9%.
- Businesses suffered severe liquidity issues.
- More than half of the service-oriented businesses recorded 75% lower sales.

Two out of five employees were put on paid leave, one-fifth worked short hours, with an additional one-fifth continuing to work without any changes

Financial Support:

- Deferred repayment of loans to individuals and businesses with all banks, microcredit institutions for 90 days.
- Subsidies for closed sectors; for the tourist industry; for affected industries.

Taxes, custom duties

- Postpone payment of taxes and contributions on salaries for 90 days
- Reduction of the VAT refund deadline and extension of the customs guarantee exposure limit period for deferred payment of customs debt.

Employees: -

- Subsidies for earnings of employees on paid leave, isolation or in quarantine.

One-off financial assistance of €50 for registered unemployed persons

Russian Federation		
<p>In 2021, Russian small and medium-sized enterprises face similar problems as at the peak of the pandemic. In 2021, many small and medium-sized businesses are very pessimistic about their position. At the beginning of the year, the turnover of a third of small and medium-sized businesses (33.1%) continued to decline, while for 27.1% it remained at the level of 2020. Approximately 19.1% of companies report a gradual recovery in 2020 losses. Approximately every tenth Russian company (9.7%) is preparing to close</p>	<p>The main difficulty faced by small and medium-sized enterprise is weak demand remains same at the beginning of 2021. This is partly due to the coronavirus restrictions - antivirus measures that affect the flow of customers in one form or another persist. Also one of the main problems is the inability to pay property tax and pay rent, as well as the lack of funds to pay salaries to employees and insurance premiums from the payroll labor. A significant part of the business (22.3%) complains about non-payments from counterparties for already delivered goods and services. Also, the lack of funds for utility bills and difficulties with the uninterrupted supply of materials and goods to enterprises turned out to be very common (this is indicated by about every fifth owner or head of the company)</p>	<p>Types of government support for MSME in 2021:</p> <ul style="list-style-type: none"> • Subsidy for start-up entrepreneurs <p>Funding from the Ministry of Economy and Development provides for the allocation of a gratuitous subsidy for the owners of companies operating on the market for less than 2 years. The maximum size is 500,000 rubles.</p> <ul style="list-style-type: none"> • Subsidy from the Employment Center <p>Within the framework of gratuitous financing of small businesses, the state in 2020 allocates 60,000 rubles for the opening of an individual entrepreneur.</p> <ul style="list-style-type: none"> • Concessional lending <ul style="list-style-type: none"> - Registration of a loan in a bank, and then receiving a subsidy in the amount of an interest rate. - Registration for a short term of a microloan in the amount of 10-100 thousand rubles. at 5-10% per annum. - Registration of a preferential loan by applying for a guarantee in the guarantee fund.
Serbia		
SMEs in Serbia account for 66.3 % of employment and 55.6 % of value added.		
<p>Serbia's economy has relatively few large – mostly public or foreign owned – enterprises, whereas most of the landscape is characterized by micro, small and medium enterprises, mostly held by domestic capital. Serbia's MSMEs tend to be somewhat less export-oriented than the large companies.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Nearly a quarter of microenterprises and 5-12% of those employing more than 10 people were essentially unable to operate. <input type="checkbox"/> Around a half of enterprises in each size category operated at a significantly reduced capacity. <p>Looking at the loss of revenues, three quarters of enterprises had a revenue shortfall.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Chamber of Economy ensured direct assistance to MSMEs amounting to three monthly minimum wages with no obligation for repayment. <input type="checkbox"/> Moratorium on loan repayment and leasing <input type="checkbox"/> Loans for liquidity and working capital for sole traders, SMEs, farms, and cooperatives properly registered, provided through Serbia's Development Fund <input type="checkbox"/> Deferral of deadlines for tax returns, tax payment, including advance payment, free of default interest <p>Reduced monthly tax advance payments (corporate income tax; local taxes)</p>

Slovenia

Slovenian SMEs were badly affected in 2020 by the COVID-19 pandemic and the policy actions were put in place to tackle it (OECD, 2020b).

<p>Slovenian SMEs employ 72% of the workforce in the business economy (436,000 persons employed), and produce 64% of the value added (EUR 13 billion).</p>	<p>The accommodation and food services sector experienced a particularly sharp contraction, with SME value added declining by 28.8% and SME employment falling by 3.8%.</p> <ul style="list-style-type: none"> □ Western Slovenia is the most vulnerable region, with about 24% of jobs at risk due to the high regional concentration of wholesale & retail trade services. 	<ul style="list-style-type: none"> □ Loan repayment moratorium □ €6 million for affected businesses □ State subsidies for employee earnings: 40% of labour costs are covered by the state for employees sent home on “stand-by”, and 100% for quarantined employees. In both cases, the employees are entitled to 80% of their salary. □ Key measures to support SMEs and entrepreneurs' liquidity include: EUR 2 billion Liquidity Aid of loan guarantees for micro firms and SMEs (up to 80% guarantee); a EUR 378 million Support Scheme for self-employed in the form of grants; or EUR 115 million Slovenian Enterprise Fund for SMEs where the Slovenian Regional Development Fund offers companies to roll over debt.
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