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Education and youth in post-COVID-19 Europe – crisis effects and policy recommendations

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Education and youth in post-COVID-19 Europe – crisis effects and policy recommendations

Abstract

This paper demonstrates that the COVID-19 pandemic posed unprecedented and multidimensional challenges to the education systems and youth sector, revealing the lack of preparedness in terms of crisis management and digital education responses, as well as reinforcing structural weaknesses of education delivery. Given that various sectors of education and the youth sector faced distinct challenges, there are valuable lessons to be learnt from policy responses and best practices across Europe. The common goal should be to build more resilient education systems, which are responsive and adaptive to future crises.

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LIST OF ABBREVIATIONS AND GLOSSARY

Abbreviations

AI	Artificial Inteligence
CEDEFOP	European Centre for the Development of Vocational Training
COVID-19	SARS-CoV-2 infection, known as Coronavirus disease
CVET	Continuing Vocational Education and Training
DG EAC	The European Commission's Directorate-General for Education and Culture
EACEA	The Education, Audiovisual and Culture Agency of the European Commission
EC	European Commission
ECEC	Early Childhood Education and Care
EdTEch	Educational Technology
EEA	European Economic Area
EiE	Education in emergencies
EQPR	European Qualifications Passport for Refugees project
ESC	European Solidarity Corps
ESN	European Student Network
ETUCE	European Trade Union Committee for Education
EU	European Union
GDP	Gross Domestic Product
HE	Higher Education
HEI	Higher Education Institution
IAU	International Association of Universites
ICT	Information and communications technology

IDPs	Internally displaced persons
ILO	International Labour Organization
IT	Information Technology
ITU	Internatioonal Telecommunication Union
KA1	Erasmus+ Key Action 1
KA2	Erasmus+ Key Action 2
KA3	Erasmus+ Key action 3
MOOC	Massive Online Open Sources
MS	Member State
NA	Erasmus+ and European Solidarity Corps National Agency
NEET	Not in Education, Employment, or Training
NGO	Non-governmental organisation
OECD	Organisation for Economic Cooperation and Developmeny
SEL	Social and emotional learning
SME	Small and Medium Enterprises
PCK	Pedagogigal content knowledge
PISA	Programme for International Student Assessment
PSS programming	Psychosocial programming
RAY	Reasearch-based analysis of European youth programmes
RCPH	The Royal College of Paediatrics and Child Health
ROI-orienter career choices	Return on Investment oriented career choices

UK   The United Kingdom

UN   The United Nations

UNESCO   The United Nations Educational, Scientific and Cultural Organisation

UNHCR   United Nations High Commissioner for Refugees

UNICEF   The United Nations International Children's Emergency Fund

VET   Vocational Education and Training

WPAY   The World Programme of Action for Youth

GLOSSARY

Apprenticeship	Systematic, long-term training alternating periods at the workplace and in an educational institution or training centre. The apprentice is contractually linked to the employer and receives remuneration (wage or allowance). *(Cedefop)*
Digital infrastructure	The comprehensive ICT infrastructure that is needed to enable the complex, multi-disciplinary and globalised practice of modern science. It capitalises on advances in ICT and integrates hardware for computing, data and networks, observatories and experimental facilities, and an interoperable suite of software and middleware services and tools. *(EC, Digital Single Market glossary)*
Early Childhood Education and Care (ECEC)	Early childhood education and care refers to any regulated arrangement that provides education and care for children from birth to compulsory primary school age, which may vary across the EU. It includes centre and family-day care, privately and publicly funded provision, pre-school and pre-primary provision. *(European Commission)*
Education system	An education system comprises everything that goes into educating public-school students at the federal, state, or community levels, including: laws and regulations; funding; staffing and resources; administration; books, furniture and material resources; etc. *(EdGlossary.org)*
EdTech	Short for Education Technology: The utilization of apps and tech devices for the purpose of teaching and learning. Edtech can happen inside or outside of classrooms, at any time, and in any place. *(TheTechEdvocate)*
First wave	The period from roughly March to June in Europe, when cases of COVID-19 increased for the first time and various strict lockdown measures were introduced. The first wave ended in summer when a clear decrease in COVID-19 cases was visible and strict lockdown measures were lifted.
Higher Education	Post-secondary education provided by universities and colleges at the academic levels. Higher education covers the ISCED 6, 7 and 8 levels. *(ISCED, 2011)*
Key/essential workers	Workers that exercise critical occupations for the fight against COVID. Examples include employees in the health and food sector, as well as childcare, elderly care, and critical staff for utilities. The exact list of essential workers differs by country. *(DG EMPL)*
National Agency	National Agencies are offices in EU programme countries that support the implementation of the programmes. *(DG EAC)*

Non-formal education	Learning which is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support), but which contain an important learning element. Non-formal learning is intentional from the learner's point of view. *(Cedefop)*
Online learning	*Please see Table 2 in the report for a description of different forms of online, blended, distance, and e-learning*
Resilience	The ability of a system to "anticipate, absorb, recover from, and adapt to a wide array of systemic threats" *(Linkov & Trump)*
School education	The level of education often divided between primary (ISCED 1), lower secondary (ISCED 2) and upper secondary (ISCED 3). While the age ranges differ, school education is in most EU countries compulsory between the ages of 6 and 16. *(ISCED, EACEA)*
Second wave	The second period, starting in early autumn, when cases of COVID-19 started to increase, and lockdown measures were introduced again. The second wave is considerably longer as it continued into the first months of 2021.
Student / learning mobility	Moving physically to a country other than the country of residence, in order to undertake study, training or non-formal or informal learning; it may take the form of traineeships, apprenticeships, youth exchanges, teaching or participation in a professional development activity, and may include preparatory activities, such as training in the host language, as well as sending, receiving and follow-up activities. *(DG EAC)*
Vocational Education and Training	The training in skills and teaching of knowledge related to a specific trade, occupation or vocation in which the student or employee wishes to participate. Vocational education may be undertaken at an educational institution, as part of secondary or tertiary education, or may be part of initial training during employment, for example as an apprentice, or as a combination of formal education and workplace learning. *(Eurostat)*
Work-based learning	Acquisition of knowledge and skills through carrying out – and reflecting on – tasks in a vocational context, either at the workplace (such as alternance training) or in a VET institution. *(Cedefop)*
Youth	Young people aged between 15 and 29 years. *(Eurostat)*

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EXECUTIVE SUMMARY

Purpose

The present study makes a first assessment of the resilience of education systems of EU Member States (MS), and of EU education and youth programmes, in the context of the COVID-19 crisis. The study analyses policy responses and best practices in education and youth work throughout the first and second waves of the pandemic, and provides knowledge that will help to build more resilient education systems and youth sectors in the future.

Key findings and recommendations

Learning from the crisis and building resilient national systems

A resilient education system is one that can adapt and transform itself in the face of adversity. This is crucial to its recovery from crises such as the COVID-19 pandemic. Enhancing resilience requires careful assessment of the impact of the current crisis, as well as the prediction of future crises, to inform policymaking.

a. Support collaborative decision making and crisis management

No EU Member State had in place disaster mitigation strategies for education. Throughout the pandemic, crisis management and decision-making processes rarely involved consultation with youth, or with representatives of the educational sector. Gathering knowledge at EU level may prove particularly valuable for the sharing of experiences. Consultation should also be sensitive to local needs, and reflect lessons learnt from bottom-up initiatives.

Challenge	Recommended EU action
Insufficient cooperation with stakeholders during the pandemic	The EU should work towards a coordinated system that enhances collaboration and cooperation between relevant stakeholders. The European Commission should support collaborative spaces and platforms that enable better synergies and partnerships between different levels of education and between different sectors.
Lack of longer-term thinking for resilience	The EU should support the smooth and accessible flow of knowledge, practices and peer-learning with regard to the continuity of education in times of crisis.

b. Improving the quality and accessibility of education

Educational and legal systems in EU MS have proved sufficiently flexible to allow for *ad hoc* adaptations of education. Of greater concern are their capacities to ensure **quality and accessibility**. Key challenges to the provision of practical and interactive education that emerged during the first wave remained unaddressed during the second wave. Educational content delivery was often contingent on students having appropriate technology and internet connectivity available at home, as well as the necessary independent learning skills to work remotely.

To address these challenges, it is imperative to adopt a different approach to learning that allows a more holistic understanding of education, and emphasises the wellbeing of both students and teachers.

Challenge	Recommended EU action
Lack of available tools for online learning, and lack of skills regarding the use of digital technologies	The EU should further support national education stakeholders in advancing EU strategies on education and digitalisation to promote high-quality, inclusive, forward-looking education and training systems that harness technology and support all learners, irrespective of gender, age or background. Investments in technological infrastructure and innovation should support the closing of the digital divide and ensure access to education for all families.
Lack of solutions for situations in which online learning is not an option	The planned European Digital Education Hub (presented in the Digital Education Action Plan) could serve as a platform for collaboratively developing new solutions and approaches that effectively combine online and offline education.
Lack of common standards, interoperability, accessibility and quality assurance of digital learning content	The EU should facilitate the creation of spaces, both online and offline, for cooperation and exchange beyond national and beyond European contexts to allow education communities of practice to learn beyond their national contexts and even beyond the European context. At the same time, it is important to identify, support and enlarge existing networks and platforms to promote the development of consistent quality standards. The EU could assist Member States in developing frameworks to measure and assure the quality of virtual education, as part of a coherent, EU-wide strategy.

c. Ensuring support to students, young people and families

Many teachers were unprepared for digital education, and lacked appropriate pedagogical and digital skills. Similarly, some institutions, such as those within the Vocational Education and Training (VET) sector, possessed a lower capacity to transform and innovate in the event of adversity or unforeseen events. Remote learning also necessitated the active participation of families. Overall, no uniform or consistent formal support was provided to youth workers, teachers or parents; the support that was provided often consisted of informal, self-organised or impromptu training arranged on a bottom-up basis. It is time to reconsider our approach to learning, which must go beyond academic progress to holistically include support networks, as well as children and youth's **social and emotional wellbeing**.

Challenge	Recommended EU action
Limited focus on socio-emotional wellbeing, and on safe learning spaces in the digital context	At EU level, the promotion of mental health should be seen as a crucial element in advancing the quality and resilience of education. The EU could facilitate the exchange of good practices and resources to promote and maintain the mental health of young people, particularly those facing inequalities.
Lack of efficient school–community/family partnerships	The EU should continue to promote the exchange of good practices through the School Education Gateway, as well as facilitating family–

school partnerships and promoting relevant practices to implement such partnerships.

d. Ensuring smart funding and digitalisation

Funding needs to be reconsidered and reprioritised. This is particularly important, given that funding for education is likely to decrease in the EU and worldwide after the pandemic, due to likely cuts in government subsidies, the inability of students to afford fees, and lower numbers of international students. The technological capabilities of countries must also be improved. Accordingly, funding should be extended to ensure the development of appropriate technology infrastructure. An ambitious vision has emerged towards a stronger public education system that can build on public–private coalitions, involving in particular the EdTech sector.

Challenge	Recommended EU action
Digital divide	The EU should ambitiously address the opportunities and challenges of digital transformation in education and training, and should foster the development of a high-performing digital education ecosystem.
Insufficient digital literacy of students and digital competence of educators and training staff	The EU should better support MS by facilitating networking between national stakeholders with regard to the process of digitalising education (e.g. through the European Digital Education Hub and the DigCompEdu framework).

Improving EU funding programmes in the field of education and youth, and their responsiveness to the crisis

DG EAC provided significant autonomy and flexibility to national agencies to handle extensions and unforeseen costs due to COVID-19. However, to modernise and improve EU education and youth programmes and enhance their resilience and sustainability, Erasmus+ and the ESC should be made more inclusive, innovative, digital and green.

Challenge	Recommended EU actions
Slow decision-making processes and the inflexibility of funding programmes at EU level intended to enable swift responses at national level	EU institutions and bodies should critically assess their internal efficiency and crisis management teams. EU legislation on education should provide flexibility in the event of unforeseen crises.
	EU institutions should develop strategies to guide their responses to future crises. Risk mitigation strategies should be put in place to ensure that the EU can act quickly and effectively in the event of a future crisis.
	EU institutions should continue to collaborate effectively with and build the capacity of national agencies, which will play a leading role in the post-COVID-19 recovery.
	EU institutions should promote the use of Erasmus cooperation projects to support the digital transformation plans of primary, secondary, VET, higher and adult education institutions.
	Support should be given to existing platforms to advance the discussion of sector-specific challenges and struggles, as well as negotiating the delicate balance between a coherent strategy at EU level, and national-level flexibility.

1. INTRODUCTION

1.1.   Context and aims of the study

The outbreak of COVID-19 in the European Union in March 2020 caused governments to take ad hoc and invasive measures to prevent the spread of the disease, including closures of educational institutions. The sudden and rapid occurrence and spread precluded careful in-depth policy planning. Due to the urgency of containing the virus, policies were implemented *before* their effects – both positive and negative – were assessed or modelled. It is only recently that policymakers have started inquiring into the consequences of various forms of school and university closures to be better prepared to tackle a similar crisis in the future. While this "unprecedented multidimensional crisis… demands coherent policy responses," admittedly not all countries have developed such comprehensive plans in place (OECD, 2020a).

Most forms of face-to-face education had to be discontinued. The switch to distance learning has had consequences for the accessibility, quality, and equity of education, and revealed gaps in the preparedness of both formal and non-formal education providers. Some institutions were unable to adjust well or fast enough and, as a result, some students were entirely shut out of education. Students from disadvantaged backgrounds were particularly affected, while others, the more privileged and affluent, continued their studies through alternative learning methods, predominantly distance and/or online learning (Schleichter, 2020a). It soon became clear that online educational activities were often not inclusive, and of lesser quality without uniform access. These shortcomings generated learning gaps, of which the consequences are yet to be assessed.

Countries and education sectors were affected differently due to a variety of factors, for instance the age of learners, and therefore their ability to learn independently, and the nature of pedagogies used at each particular level, as well as the extent of the integration of distance and online learning into usual education provision. In addition, no uniform or consistent formal support was provided to teachers and parents; the support that emerged was non-formal, self-organised or impromptu trainings arranged as a bottom-up support network.

By and large none of the countries were prepared for a swift transition of their educational system and youth work, eliminating all engagements that required personal presence and yet maintaining the programmes. Despite various examples of inspirational quick solutions, the COVID-19 crisis generally highlighted the lack of preparedness of countries in terms of digital education infrastructure. Furthermore, only 58 % of EU citizens in 2019 possessed basic digital skills, ranging from almost 80 % in Finland to just over 30 % in Italy. Within countries, similar discrepancies exist based mainly on geographical location (rural areas and regions with lower socioeconomic development being less connected) (European Commission, 2019a). Therefore, the switch to distance education and reliance on ICT during the COVID-19 outbreak exacerbated the existing digital divide in European societies.

Additionally, various other challenges faced by children and youth as a result of the crisis have been documented by recent research. For instance, deteriorating effects on mental wellbeing of youth were assessed by the European Commission, which concluded that young people were less likely to perceive themselves as resilient in crises, and they felt lonelier and more depressed than older age groups (European Commission, 2019a). The United Nations also warned that "young people are particularly vulnerable to the disruptions the pandemic has caused, and many are now at risk of being left behind in education, economic opportunities, and health and wellbeing during a crucial stage of their life development" (United Nations, 2020a).

Globally, the UN programme of World Programme of Action for Youth (WPAY) called on governments to ensure that their services meet the needs of young people, particularly under the current circumstances (United Nations, 2020a). The Advisory Council on Youth of the Council of Europe called on its Member States to pay special attention to the needs and vulnerabilities of European youth and to protect young people's human rights during the COVID-19 pandemic (Council of Europe, 2020a). The Statement of the Advisory Council on Youth on responses to the COVID-19 crisis highlighted the need to pay attention to "young people's needs and perspectives" (Council of Europe Advisory Council on Youth, 2020).

The COVID-19 crisis has demonstrated several core weaknesses of education systems and youth sector across the European Union that pre-dated the outbreak of the virus. The current situation and emergency education responses offer a unique opportunity for governments to evaluate their education systems and address the gaps that were revealed over the year 2020.

The diagram below summarises the main sequence of events and consequent reactions, or the lack thereof, and outcomes.

Very sudden and rapid crisis

Swift response	Lack of knowlegde

Institutional response

Education organisations and youth institutions respond without much planning	Some education organisations and youth institutions were unable to sufficiently respond	Some institutions moved to online learning

Online learning

Access was not always uniform, inclusive or of suitable quality	Limited formal support to teachers and parents

Source: Developed by PPMI based on the literature review.

1.2.   Rationale and scope of the study

Increased globalisation, violence and vulnerability to infectious diseases had previously led to school closures, for example, during the SARS outbreak in 2002–2014 in Asia and the 2014–2015 Ebola outbreak in African countries. In war-torn countries such as Afghanistan, school closures were commonplace; "Nearly half of war-torn Afghanistan's 18,000 schools lack proper buildings and an estimated 3.7 million school-aged children are still out of school" (Faiez, 2020). Therefore, shutting down schools due to the outbreak of a virus is not a completely unprecedented occurrence, and it is possible that there might be circumstances in the future that will necessitate a similar situation.

However, long-term, ad hoc, and nationwide school closures are a new and unforeseen phenomenon in the European Union. It is wrong to assume that such a situation will not occur again, either due to another pandemic or due to other causes. Therefore, it is crucial that education systems and actors

have sufficient capacity and strategies to effectively adjust to unforeseen circumstances, meaning that they are resilient in the face of adversity.

To support the recovery of education systems from the current crisis and build resilience in the face of future crises, the current study reviews the trends in policy responses adopted by Member State (MS) governments to ensure the continuity of education during the physical closure of education institutions, covering Early Childhood Education and Care (ECEC), school, Vocational Education and Training (VET), higher education, and youth sectors. Additionally, the study includes a review of measures and responses adopted by the EU institutions to ensure the adaptation and continuity of its programmes in education and youth (namely, the Erasmus+ and the EU Solidarity Corps).

The analysis of the national and European responses, and identification of their main challenges and gaps, will provide key recommendations for education stakeholders to build more resilient education systems which are responsive and adaptive to future crises.

1.3.   Methodological and analytical approach

Analytically, the study takes a "resilience-building" approach to understanding the impact of the crisis and lessons that Member States and the EU can learn from it to improve their education and youth policies. The concept of "**resilience**" includes the ability of a system to "anticipate, absorb, recover from, and adapt to a wide array of systemic threats" (Linkov & Trump, 2019). Therefore, resilience indicates that a system can return to its original stability, while also introducing innovations and capabilities developed in response to the crisis. This applies to education systems and the youth sector as well.

The World Bank's approach to education resilience defines education system resilience as reliant on 1) meaningful and relevant strategic direction for education in contexts of adversity, 2) innovative education programmes for learning, socio-emotional wellbeing and protection, and 3) available and equitable human, material and financial resources (World Bank, 2016a). Resources are then key for innovation and resilience, which should be the guiding principles of change and development of education provision.

it is important to recognise that in general, formal education systems are very slow to change and their reorientation to include principles of sustainability may take a long time, in contrast with non-formal education, which "is capable of delivering new information, approaches and methods for teaching and learning more easily in a shorter period" (Martins, Mata, & Costa, 2006). In addition, since the pandemic further withdrew or reoriented resources from education to healthcare, the "investment and the promotion of change and reform [of education and training] is difficult in a climate of austerity and political uncertainty," as a study by European Education and Training Expert Panel concluded already in 2019 (European Commission, 2019b).

Furthermore, institutions and experts have long advocated for online learning approaches as fully integrated into all parts of education and implemented as a cohesive component of learning, teaching and assessment. It would then be myopic or outright misleading to treat online learning solely as a response to crisis. Instead, it is an integrated approach to learning, which may provide a more "flexible and scalable route" to learning (Hameed, Badii, & Cullen, 2008), creating "dynamic learning communities" (McDaniels, Pfund, & Barnicle, 2016) that are more capable of adapting to sudden changes.

This report highlights the lessons learnt from the crisis that are pertinent for the education programmes of the EU and the education systems of the Member States, to develop recommendations for designing **education systems that are prepared for future crises**. The study also aims to highlight **how the**

crisis and initial policy responses have revealed fundamental flaws in education systems across the EU and to what extent follow-up policy measures throughout the crisis have aimed to address these challenges. We look at the extent to which potential solutions, such as technology or smart investment, might result not only in the mitigation of the crisis, but also lead to a more resilient education system. This would demonstrate the resilience of a system by its ability to transform and learn from the crisis, as well as drawing lessons for a robust action to strengthen the resilience of the system in the context of future crises.

The figure below presents the analytical framework used as a basis for the development of the study and the data collection tools.

Figure 1: Analytical framework
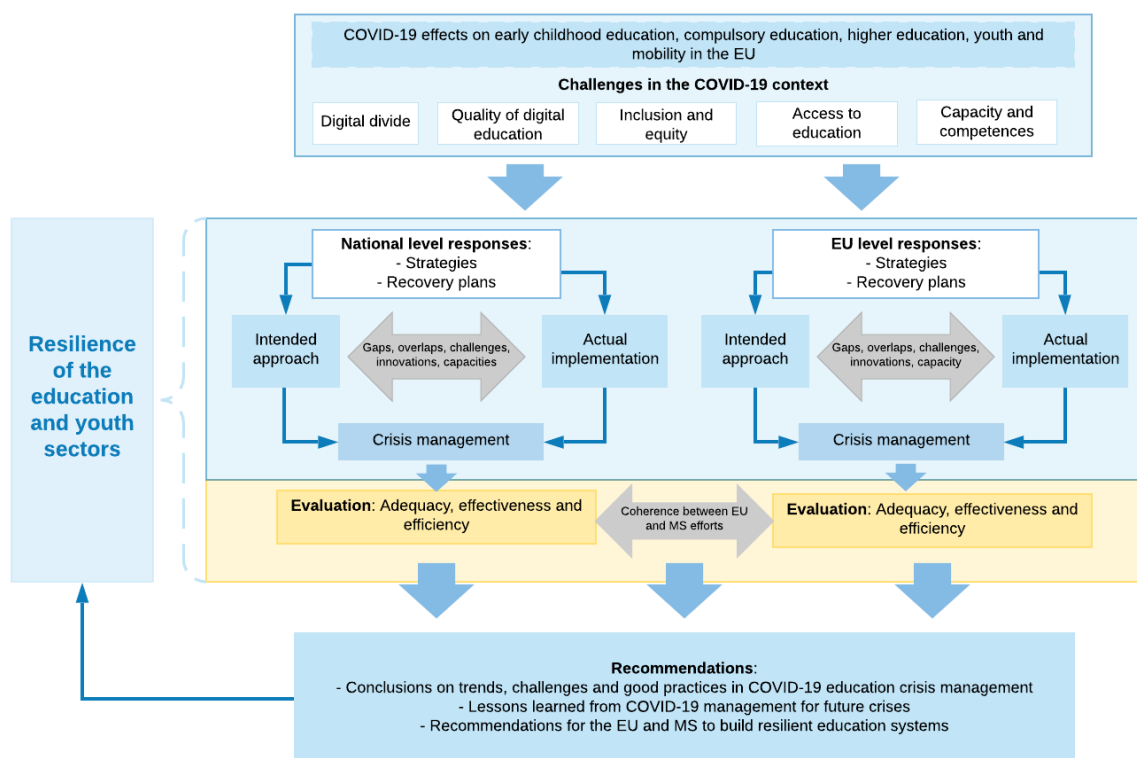
Source: PPMI

The main source of information for this report was secondary data, supported by semi-structured interviews. Through desk research, the research team assessed the following documents:

-   academic sources (limited due to the novelty of the situation),
-   policy reports,
-   blog posts,
-   reflections and news articles,
-   and other information available online, both at the EU level and national levels.

The review began in November 2020 and lasted until January 2021 and focused on different trends visible across the EU in terms of closures of education institutions, shifts to distance learning and mitigation measures, as well as country examples to demonstrate the approaches that proved more efficient and adequate. The research team also attempted to map crisis management responses at the EU level in relation to its funded programmes for education and youth. Importantly, it is important to

highlight that we are still experiencing the crisis at the time of concluding this report, and the impact of COVID-19 on education and the youth sector does not appear to be well studied or researched as of this date.

To better understand the effectiveness and adequacy of policy responses, the research team conducted **semi-structured interviews** with representatives of education ministries of selected countries, EU representatives, National Agency representatives and EU-level stakeholders (see table below).

Table 1: List of interviews

Country	Institution	Date of an Interview/correspondence
Ministries of Education		
Bulgaria	Ministry of Education	20 November 2020
Estonia	Ministry of Education	12 November 2020
Germany	Ministry of Education	24 November 2020
Latvia	Ministry of Education	20 November 2020
Poland	Ministry of Higher Education	9 December 2020
Poland	Ministry of National Education	31 December 2020
Spain	Ministry of Education	19 November 2020
Sweden	Ministry of Education	9 November 2020
National Agencies		
Belgium	JINT, National Agency	17 November 2020
Belgium	Bureau International Jeunesse, National Agency	20 November 2020
Czechia	Dům zahraniční spolupráce (DZS) Centre for International Cooperation in Education (NAEP), National Agency	20 November 2020
France	Agence Erasmus+ France/Education Formation - 2E2F, National Agency	20 November 2020
Germany	JUGEND für Europa, National Agency	16 November 2020
Portugal	Agência Nacional para a gestão do programa Juventude em Acção, National Agency	25 November 2020
Romania	Agentia Nationala pentru Programe Comunitare in Domeniul Educatiei si Formarii Profesionale (ANPCDEFP), National Agency	19 November 2020
EU-level stakeholders		
EU-wide	DG EAC, Representatives of the Units B1, B3, B4	9 December 2020
EU-wide	DG EAC Unit B2	14 December 2020
EU-wide	European University Association (EUA)	16 December 2020
EU-wide	European Vocational Training Association	12 January 2021
EU-wide	European Youth Forum, World Organization of the Scout Movement, AFS Intercultural Programmes, Erasmus Student Network, YEU International, YMCA Europe	2 February 2021
EU-wide	International Step by Step Association (ISSA)	17 December 2020

Having completed the first draft of this report, the research team hosted an **Expert Validation Workshop** during which the initial findings, conclusions and recommendations were discussed. We wish to express our gratitude to the education experts, for their invaluable suggestions and constructive criticism. We are also grateful to the two anonymous reviewers for their recommendations on how to improve the study.

1.4.   Limitations

The COVID-19 crisis and response measures are still ongoing in most EU countries, and no conclusive studies on the effects of COVID-19 on education have been conducted yet. Although the research team has already identified various sources and literature that were drafted in the first period of the outbreak, the team relies on government sources and policy documents for most of its information, as well as on interim results of the studies that are still being conducted while this report is being written. We also rely on the first research reports already published, such as conference papers and academic articles from leading journals.

Countries' responses varied not only in terms of the extent of closure, but also the duration of distance education. While there are no conclusive studies and robust evidence for the effects of both waves of the pandemic, nevertheless with existing information it is feasible to draw conclusions and develop recommendations. Our most important task, as many observers have suggested, is to learn from the experience of countries, even though comparisons might be limited by cultural factors, and to (re-)design education systems so that they become more resilient and able to deliver effective and equitable learning even in times of crisis. Besides, the knowledge we do have "changes almost daily" in the race to understand the virus and the effects of policies recently implemented to mitigate its spread, causing more confusion than clarity.

The study focused mainly on education systems as a whole and on national authorities' measures to minimise disruptions in learning and support formal and non-formal education process. While public–private partnerships and the private sector of education are occasionally touched upon, they are not a particular focus of the analysis. Adult education as such is also not addressed as a stand-alone topic.

2. TACKLING THE COVID-19 CRISIS: POLICY RESPONSES IN MEMBER STATES IN THE FIELD OF EDUCATION AND YOUTH

2.1. Education systems and youth sector during the pandemic

The COVID-19 pandemic posed unprecedented challenges for all education systems and youth sectors globally, leading to what some experts call "global learning crisis" (EdTech Hub, 2020). The most immediate response across Europe and the world in education was the shutting down of schools – some shifted from face-to-face to distance education to ensure the continuity of education, while others failed to provide viable options for students to continue their studies. Students were not equally served, and educational opportunities were not equally provided, as a result. Already vulnerable and disadvantaged children were hit hardest by these sudden changes:

"But the shift to remote learning has been uneven. Some systems were able to train teachers, roll out remote learning, and put in place student-support services in less than a week. Others are still struggling, constrained by lack of access to technology or expertise. The disparity is obvious among countries; it is also noticeable within them." (Bryant, Chen, Dorn, & Hall, 2020)

In Europe, this was mostly implemented through online classes. Hodges, et.al. (2020) emphasise that "online education" should not be confused with "emergency remote teaching" which has been implemented upon COVID-19 school closures. The concept of online education implies the existence of an infrastructure that facilitates online education in terms of pedagogies, content, tools, etc., while emergency remote teaching refers to the unprepared and ad hoc shift to distance learning without considering the relevance and adequacy of existing education materials and tools for this purpose (Hodges, Moore, Barb, Trust, & Bond, 2020). It is also important to make a distinction between online learning ("e-learning") and distance learning, as these terms are increasingly used interchangeably. Distance learning relies on e-learning as a style of learning, but the two are not the same (see Table 2 below). Another term increasingly used is "Blended Learning", which some observers argue may become the "future of education" after the pandemic (ACER for Education, 2020).

Table 2: Definitions related to online and blended forms of learning

	Digital learning	E-learning	Distance learning	Blended Learning
Purpose	Inclusion of digital technology in any form – online courses or using digital tools in class	Complement the learning that is carried out in the classroom Connection between student and teacher Use of Virtual Learning Environment (VLE)	Receive a degree or complete a course by attending through the internet Traditionally used in higher education	Combine online and face-to-face learning Mixing traditional face-to-face education with technology
Benefits	Expanded learning opportunities	Easy assessment Interactive learning	Accessibility Convenience	Enables EdTech Personalisation
Challenges	Teachers often lack proper training	Inequality due to lacking technology and broadband services may not be reliably available Younger students increasingly rely on working parents for assistance		

Source: Stafford Global, 2020 and Digital Marketing Institute, 2018

Digital learning may cover a great variety of situations, and digital tools can be used to a different extent within classrooms and outside of those. Several typologies have been proposed differentiating types of digital learning, which still fall short to cover the entire spectrum of digital learning methods. For example, in terms of Blended Learning, four models were proposed: Rotation—with four sub-

models: Station Rotation, Lab Rotation, Flipped Classroom, and Individual Rotation—Flex, A La Carte, and Enriched Virtual (Horn & Staker, 2014). Each of these models differ in terms of how and to what extent online education is built into the learning practice – whether online tasks are only reserved for homework or cover most of the learning, enriched by individual face-to-face support; whether students use in-school computer labs for online assignments, or complete those at home; whether online assignments complement face-to-face learning or replace it entirely. These variations may differ among and even within schools, depending on the subject taught as well as teachers' skills and preferences.

Several studies have inquired into the variation in adopting digital education models within schools or among teachers. For instance, Goele and Tandon (Goele & Tandon, 2020) found that beyond teachers' skills and appropriate conditions for online learning, peer support and motivation, or teachers motivating their colleagues also played a role in how teachers incorporated online education into their teaching. Another study showed that even early career teachers, who were expected to have more robust digital skills, nevertheless struggled with incorporating digital education into everyday teaching and learning processes; consequently, teachers professional development accounted for the variation in the extent of digital education that they were able to adopt during Covid-19 (König, Jäger-Biela, & Glutsch, 2020). In other words, at the outset of the pandemic, face-to-face education was discontinued in favour of digital learning, but how digital learning was realized varied among countries, school and even among teachers.

Put differently, given the unexpected spread and the relatively unknown nature of the virus, European countries tended to place severe restrictions on every form of socialisation, including closing or partially closing educational institutions during the first wave. With no time to properly assess the consequences, halting the pandemic was the most important priority. The approach to education was markedly different during the two waves of COVID-19 (spring and fall/winter of 2020). After the initial responses of Member States to shut down schools, most opted for a shift towards distance/online learning when possible. To that end, mostly ad hoc measures were introduced due to the need to act rapidly, at times mitigating the lack of necessary infrastructure. During the second wave, however, countries were more hesitant to shut down schools (Hodges, Moore, Barb, Trust, & Bond, 2020).

Distance learning that took place during the first months of COVID-19 school closures in the spring of 2020 was characterised more as emergency remote learning, or "coping phase" (World Bank, n.d.), without a well-organised online learning environment and infrastructure that successfully implemented remote learning methods must rely on. Scholars and experts have demonstrated that "online teaching and learning imply a certain pedagogical content knowledge (PCK), mainly related to designing and organising for better learning experiences and creating distinctive learning environments, with the help of digital technologies" (Rapanta, Botturi, Goodyear, Guardia, & Koole, 2020). Most teachers, however, lacked not only the pedagogical knowledge, but also faced challenges with technological and digital expectations of online teaching.

Critically, the emergency of the first wave allowed for planning and designing for "transition during an emergency", as well as enabling a transition from emergency remote teaching to planned online education (e.g. Green, Burrow, & Carvalho, 2020; and Schultz & DeMers, 2020). Hence, the second wave of COVID-19 was treated decidedly differently: with more research about the virus, better understanding of the consequences of the lockdown, and better estimation of various costs of institutional closure, schools were not immediately closed. In fact, a decisive shift happened in how policymakers thought of education. In other words, the crises, with its unexpected and severe disruptions in education, has also

"stimulated innovation within the education sector. We have seen innovative approaches in support of education and training continuity: from radio and television to take-home packages. Distance learning solutions were developed thanks to quick responses by governments and partners all over the world supporting education continuity" (United Nations, 2020b).

Such innovative approaches in support of continuity in education have been put to practice in other parts of the world where disruptive crises interrupted learning (see the Box below).

Box 1: Examples of education continuity in crisis contexts

An example of scaling-up an education programme "Getting Ready for School" in Sierra Leone during the Ebola outbreak shows that effective collaboration can also facilitate the scaling-up of the already existing practices and ensure that investments are allocated to the activities that are the most effective. While most of the educational services in Kailahum paused their activities during the Ebola outbreak, the "Getting Ready for School" programme was redesigned as a radio education programme "Child to Child Talk" and scaled-up to the national level. A local NGO, which was the lead implementing partner of the programme, collaborated with government institutions, community representatives, radio producers, international child development experts, parents, and students to come up with the best approach for redesigning the programme. Its content was made available in three languages and radios were distributed to the facilitators, who created listening groups for students. This example shows that close cooperation between authorities, civil society organisations and NGOs can help identify already successfully operating initiatives and facilitate their scaling-up, and in that way improve the emergency response and ensure that available resources are invested efficiently.

Indicative of this change was how German ministers, who are responsible for coordinating education policy, discussed children's **right to education**, which "is best served among peers, in classrooms [and] this must take highest priority in making all decisions about restrictive measures that need to be taken" (Eddy, 2020). Another divergence from the first wave policies was the keen awareness of the various consequences of closing educational institutions – psychological, economic, educational, social, and mental. Policymakers, in anticipation of the second wave, were better able to balance costs and benefits when COVID-19 hit Europe again. Hence, for better analysis the two waves should be examined separately in order to draw conclusive policy recommendations to promote a more resilient educational system Europe-wide.

Another noteworthy initiative was the **evolving public–private partnership**. For instance, industry was quick to offer free access to communication tools like Zoom. At the time when "schools and universities [were] ramping up their ability to deliver teaching remotely as classrooms and campuses close[s],…business software and services companies [were] rolling out a growing number of free products and services, as well as free customer upgrades to more advanced tools" (Giles, 2020). In Romania, for example, for the first time a private program entered the official curriculum at the beginning of the 2020/21 academic year. This program, known as Digitaliada "online learning and testing platform" is "a free school management system that offers users free access to dedicated modules for tests, homework, video conferencing and activity reports" (Orange Foundation, 2020).

Most notable was the boom in the education technology (EdTech) industry. Education technology or EdTech – online education via various platforms that may include education apps, video conferencing tools, or online learning software – has been used to a varying degree by many educational institutions, yet the pandemic became a major catalyst for popularising the EdTech sector. Arguably, EdTech was

expected not only to provide an immediate education response to COVID-19, but also long-term system recovery:

"Since the onset of the pandemic, 186 countries and territories have used radio, television, or online platforms to provide children with learning continuity…Policymakers are currently exploring the option of using technology as part of a mixed or blended education model to support remedial learning and build resilience to future crises as schools reopen." (EdTech Hub, 2020)

Experts warned that the sector should not be treated as a hub of educational expertise, because it is built around a business model with customers and investors. For instance, the use of education technology made learning inaccessible for some segments of society and even exacerbated learning inequalities. A recent study by UNICEF confirms that globally, low-income countries and students in remote areas and deprived households were not able to benefit (or even access) online learning content (UNICEF, 2020a). Another study highlighted the disturbing extent of surveillance that some digital tools require, as well as the "market-based language of profits, privatization and commercial exchange" that is alien to the traditional public education system (Teräs, Suoranta, & Teräs, 2020).

Optimistically, EdTech resources, may also be mobilised in order to mitigate causes of learning inequalities, focusing on the resilience of education, rather than solely providing content (EdTech Hub, 2020). Some observers noted the "role of EdTech companies in developing artificial intelligence (AI) and machine-learning technologies in areas like e-classrooms, virtual reality or interactive modules," (Dolan, 2020) making tremendous progress in "personalization of learning" (OECD, 2020d). More specifically, a personalised approach to learning with the help of AI may be key to recognising and addressing various difficulties that students face. Stéphan Vincent-Lancrin, a Senior Analyst at OECD's Directorate for Education and Skills, indeed argues that incorporation of AI during the COVID-19 crises would have been most beneficial for children from disadvantaged backgrounds and with learning difficulties (OECD, 2020d). That, however, assumes that AI systems become accessible to everyone, which raises an important question: should funding of education reflect the transformational change that technology is representing for the way learning is reconceptualised?

However, not all are optimistic about the benefits of AI, which should make policy makers more cautious about relying on AI in education. For example, Ilkka Tuomi (2020) convincingly argued that while "AI has a great potential in compensating learning difficulties and supporting teachers," yet there needs to be more research and understanding regarding their impact on learning:

Many AIEd systems have been developed over the years, but few of these have shown clear scientific impact on learning. Evidence is lacking partly because the contexts of teaching and learning vary across classrooms, schools, educational systems, and countries. Local knowledge and capacity is critical for effective adoption and shaping of AIEd, and new scaling models are needed. Co-design of AIEd with teachers is a possible way to advance new scaling models (Tuomi, 2020).

Some estimate that technology will be more pervasive and an integral part of education; with that in mind, "EdTech's share of global education spending will [likely] rise from just 2.6 percent in 2018 to 4.4 percent in 2025" (Dolan, 2020). Considering that EU Member States are spending an increasingly smaller share of their budget on education and training (LLL Platform, 2020), disinvestment is likely going to accelerate as a result of the pandemic and the fall in government revenues. According to a recent report by the World Bank, among high- and medium-income countries, the vast majority of funding for education comes from governments, with a smaller share from households. Considering the uncertainties of the economic impact of the pandemic, the fall of GDP and re-prioritisation of government budgets, "There is evidence that some countries are already cutting their education budgets to make space for the required spending on health and social protection" (World Bank, 2020a).

It is then imperative to develop strategies to properly allocate the increasingly scarce funding provided for education, and, simultaneously, consider ways to transform education spending in a sustainable manner.

Overall, the COVID-19 crisis has affected institutions, students, and teachers in many ways. Although there was no uniform response to the pandemic across countries, the struggle of teachers and supporting staff at all levels of the education system – from preschools to universities – was similar. It has been a challenge to provide a resemblance of a learning routine for students, while also offering an appropriate support system for parents. Families, and especially parents of small children, also grappled with the unexpected circumstances, which often hit vulnerable communities, minorities, and low-income families the hardest.[1] An overview of the effects and consequences is summarised in Table 3 below:

Table 3: Effects and consequences of COVID-19 responses across Member States (MS)

Early childhood education	Compulsory education	Vocational Education and Training	Higher education	Youth sector and mobility
Effects				
Closure of nurseries and kindergartens	Partial or complete switch to forms of distance learning	Partial or complete switch to forms of distance learning.	Partial or complete switch to forms of distance learning	Temporary suspension or alteration of youth mobility programmes
Some child development services moved online	Structure and modes of testing and examination system change	Termination or postponement of apprenticeships and work-based learning	Temporary suspension or alteration of education exchange programmes (e.g. Erasmus+ and others)	Cut activities
In some places, nurseries for essential workers (re-) opened	Extracurricular activities cancelled	Structure and modes of testing and examination system changed	Structure and modes of testing and examination system changed	Job losses
Consequences				
Increase in childcare responsibilities at home	Almost complete loss of practical training, both in institutions and on-the-job	Lower number of (potential) international students and decreased student mobility across Europe		Stress and mental wellbeing deteriorated
Negotiated work hours and reduced income for households	Loss of income gained through apprenticeships	Less study abroad opportunities		Lower disposable income among youth
Children of low-income families lose their school meal programme	Social isolation and missing out on essential social contact			
Parental stress		Vulnerable, low-income and minority students with less access to digital tools		Less opportunities for international mobility
	Inadequate access to or knowledge of ICT tools (teachers and learners)			Economic insecurity

Source: Compiled by the research team based on the literature review

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[1] Multiple stakeholders, including ETUCE, warn that that educational institutions closing due to the pandemic further exacerbated societal inequalities. (ETUCE is the European Trade Union Federation for the education sector within the European Trade Union Confederation. Website: https://www.csee-etuce.org/en/about-us/about-etuce)

We are yet to see the exact consequences of the closures of educational institutions and to understand what effects various policies had on not only the educational outcomes, but also the national economy and public health. Indeed, "reliable evidence on the costs of school closures has been hard to come by," and without reliable, comparable data, it is excessively hard to arrive at conclusive recommendations (Engzell, Frey, & Verhagen, 2020). There seems to be a consensus on the most important **challenges associated with online learning, whether partial or complete are equity, accessibility and burden on parents**. It remains imperative to properly analyse the impact and consequences of both COVID-19 waves (spring and fall/winter 2020), as well as the changes and innovations implemented to mitigate the disruptions. The following sections aim to reflect in more detail on specific measures introduced in different education sectors (and at different education levels) and on the challenges associated with the chosen crisis-tackling approaches.

2.2.   Early Childhood Education and Care

KEY FINDINGS

- Maintaining ECEC services during times of crises is of critical importance for the wellbeing of children, families, and society
- ECEC current pedagogies and practices are the least digitally adaptable and improvement is needed in this area
- Various support – e.g., parental leave or support measures – must be significantly strengthened if ECEC institutions are closed.

Early Childhood Education and Care (ECEC) refers to "any regulated arrangement that provides education and care for children from birth to compulsory primary school age, which may vary across the EU" (European Commission, n.d.).

The ECEC sector is a unique level of education within the analysis of COVID-19 education responses due to 1) the nature of its objectives, curricula and pedagogies, and 2) the different governance of ECEC compared to other levels of education, especially in terms of its non-obligatory nature and the availability of places. ECEC is not mandatory in most countries and there are no guaranteed places for children in ECEC institutions. According to the recent Eurydice report, only eight European countries (Denmark, Estonia, Finland, Germany, Latvia, Norway Slovenia, and Sweden) guarantee a place for every child in ECEC after birth. A child has a legally guaranteed place in an ECEC institution from the age of three in 14 Member States, and in the rest of the countries, access to ECEC is not guaranteed (European Commission/EACEA/Eurydice, 2019). As a result, in many countries the legal framework does not oblige the government to ensure the continuity of ECEC during the physical closure of ECEC institutions. Yet, for working parents of young children, organised childcare services are the key precondition for returning to work or maintaining employment.

Additionally, education systems differ strongly in terms of the age groups covered by educational policies, programmes, curricula, guidelines, and frameworks for ECEC. Altogether 18 Member States have guidelines for all ECEC, while 9 do not have guidelines for children below the age of three. This also hinders the swift implementation of emergency (distance) learning programmes. In most countries, the guidelines serve as a basis for subsequent pedagogical plans developed by individual ECEC institutions or on a municipality level (European Commission/EACEA/Eurydice, 2019). The ability of an ECEC institution to provide emergency, quality ECEC therefore depends on the capacity and skills

of the institution. Given these particularities of the ECEC sector, both waves of COVID-19 posed serious challenges for policymakers and education providers in ensuring continuity of ECEC.

2.2.1. Policy responses, challenges, and good practices in the first wave

Across Europe, the initial responses to the first wave of COVID-19 were cautious; when the outbreak was declared a global pandemic in March 2020, most countries engaged in pre-emptive early school closures, including of ECEC institutions. Considering the timeline of ECEC closures, there is a clear progression of measures from March to April 2020, when the overwhelming majority of ECEC institutions have partially or completely closed (see Figure 2) (European Centre for Disease Prevention and Control, 2020). After the reduction of COVID-19 cases and hospitalisations, ECEC institutions began reopening, and by mid-June most institutions removed closure notices.

Figure 2: Timeline of ECEC institutions closure

March 9-15	→	April 20–26	→	Mid-May and mid-June
• ECEC closed in 42 % (13/31) of EU/EEA countries + UK		• ECEC fully or partially closed in 80 % (25/31) of EU/EEA countries + UK		• partial, then complete re-opening of ECEC institutions
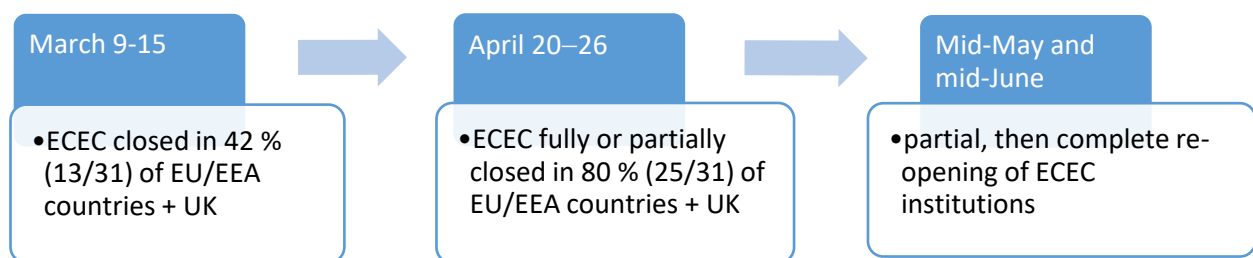
Source: European Centre for Disease Prevention and Control, 2020

Although partial or complete closure affected most ECEC institutions, approaches to closure differed. Table 4 provides a summary of countries that implemented mandatory, partial or no closures during the first wave of the COVID-19 pandemic in the spring of 2020. Some countries only kept ECEC open for children of essential workers, for example Belgium, Croatia, Denmark Hungary and the Netherlands (School Education Gateway, 2020). For instance, the government of the Netherlands issued an official statement that "Childcare will be provided exclusively to children whose parents or guardians are key workers, but only if the children do not have a fever, a cough or a cold", with an accompanying list of such "key workers" (Government of the Netherlands, 2020). This measure was aimed at keeping the society running and assuring that health care services were provided.

Table 4: Mandatory closure of ECEC across the EU, up to June 2020

Mandatory closure	Partial mandatory closure	No mandatory closure (but ECEC institutions can decide individually)
Bulgaria, Cyprus, Germany (varied by state), Greece, Ireland, Italy, Malta, Poland, Romania, Slovenia, Spain.	Belgium, Croatia, Denmark, France, Hungary, Lithuania, Luxembourg, the Netherlands, Portugal, Slovakia (open for children of essential workers). Finland (for children with specific needs and children of essential workers).	Austria, Czechia, Estonia, Latvia, Sweden

Source: Koslowski, Blum, Dobrotić, Kaufman, & Moss, 2020

In many countries providing alternatives to ECEC proved challenging or outright impossible. For instance, in Croatia policymakers responsible for ECEC on the national level were unable to swiftly provide alternatives to classroom ECEC, in part because children at this age have low digital skills, and partly because kindergartens do not possess digital credentials to access online content of the Ministry

of Science and Education. Indeed, a pioneering study by Stephane Chaudron (2015) on young children's digital competences demonstrated that for young children (0-8 years old), digital technology use should be balanced with and complementing non-digital activities. On other words, "Digital activities support their 'offline' life interests and use them as an enlargement of those activities" (Chaudron, 2015) and hence fully online education was hardly possible. In addition, "the scarce presence of technologies at the early childhood education level" is also a well-known fact (Romero-Tena, Sanchez, Llorente, & Palacios-Rodriguez, 2020).

A group of Croatian ECEC teachers recognised the need of ECEC children and of their families to connect and communicate with peers. The teachers were able to build on an existing virtual social network to create a model for their ECEC group that facilitated this connection – and introduced the idea of a "virtual kindergarten". The group agreed on a pedagogical approach to ECEC which involved guidance for parents by the ECEC teachers, implementation of activities by parents, and progress reporting by parents to the teacher. The ECEC teacher would try to understand children's learning process from the documentation collected and given by parents and children. The success of this unique initiative was likely due to the strong connection that was maintained online between the teachers, parents, and community (Tokic & Vukasinovic, 2020).

Virtual kindergartens are not a novelty; for example, in Saudi Arabia virtual kindergartens were initiated even before the COVID-19 crisis and were amplified during the pandemic (UNESCO, 2020a). These state-run virtual settings, where "children can learn by taking part in activities and watching videos on smartphone" will "pave the way to launch a virtual school for all levels of education in the near future," according to Saudi Arabia's Minister of Education (Rivzi, 2020). However, experts have also demonstrated and warned against the negative effects of technology on early childhood development, especially when not used in an age-appropriate manner:

"*Children's inappropriate use of such technological devices in terms of content, duration, frequency, and the posture they adopt while using them pose a variety of health risks, including developmental problems, musculoskeletal problems, physical inactivity, obesity, and inadequate sleep quality.*" (R., Zirek, Yasacı, & Özdinçler, 2018).

This dilemma was echoed during the interview with the International Step by Step Association (SSA), which has institutionally criticised exposure of small children to screen time and argued that technology was not an option at that age. The ECEC sector never relied on technology like other segments of education, yet young children's education was also expected to continue online, the interviewee suggested. In addition, a considerable burden fell on the parents as well to assist their young children in participating in online activities. In the meantime, there has been no guidance from the EU regarding ECEC services, the SSA expert on ECEC lamented (International Step by Step Association, 2020). This interview closely echoed the findings that "early years education is aimed at providing real-life sensory experiences, hands-on activities, and meaningful face-to-face interactions, which are hard to achieve virtually," and hence "online learning can be ineffective and stressful for young children" (Spiteri, 2021).

Sweden was a much-discussed case – all ECEC institutions remained open during the first wave of the pandemic, with the introduction of strict hygienic and social distancing conditions. Sweden's approach is noteworthy, considering that many countries opted for hybrid closing measures (keeping educational institutions for young children open) during the second wave. Having assessed the epidemiological data, Swedish authorities designed their policies with the assumption that small children have only a marginal role in the community transmission of the virus. According to their

estimations, "as of 28 May 2020, 0-9-year-olds represented 0.5 % of all cases" of COVID-19 (European Centre for Disease Prevention and Control, 2020).

Sweden has allegedly closely followed scientific evidence and developed its recommendations, which stated that "children and young people represent a small proportion of the overall number of COVID-19 cases in the country", and hence recommended that "all educational facilities remain open" (European Centre for Disease Prevention and Control, 2020). In the summer of 2020, the Swedish Public Health Agency's chief virologist was adamant that "the decision to keep Swedish schools and day-care centres open did not have much bearing on infection rates" (Warner, 2020).

However, scientific evidence about children – regarding their infection rate and the rate of children transmitting the virus – is largely inconclusive, due to limited testing done on children. For instance, a recent study showed that the "viral load" among children is higher and hence they transmit the virus at higher rates than adults (Yonker & et.al., 2020). Such findings have serious policy implications, suggesting that closure of educational institutions, including ECEC, may be indeed imperative for the fight against the spread of the virus.

Based on an overview of best practices in early childhood education and care during the pandemic, a global perspective through non-state initiatives is instructive for identifying particular methods and strategies that worked best during the crises (see box below).

Box 2: Intervention of Save the Children in providing early childhood education during the pandemic

Philippines: the country adapted materials to young children's different needs as "Early Literacy and Math at Home package" for children aged 3–5 years. In order to meet different needs, "each video or audio session offers modifications in performing the games and activities for children with sensory, physical/ motor and information processing difficulties." Importantly, the format of these packages does not assume an internet connection but ensures that household with no internet have access to content in the form of "posters and printed materials, phone texts and calls, audio, and video".

Nepal: since the country addressed the youngest children's rights to learn insufficiently, the Save the Children initiated interventions that supported "parent-focused learning opportunities for children of pre-school age": "One programme delivers distance learning activities to parents through phone calls, giving practical guidance on how to provide young children with a safe, loving and stimulating home environment that promotes their wellbeing. Parents are encouraged to practice activities with their children, using materials we provide, such as cards, shakers and balls. Second, interactive voice receivers are being used to build caregivers' knowledge and skills. Target caregivers can call a free number to hear recorded content in local languages about playful and positive parenting and activities to promote their own wellbeing, and to ask questions."

Kosovo: through a partnership between the Ministry of Education, Save the Children and UNICEF, as well as a private technology company, an online platform was developed "to support early and inclusive distance learning platforms" to assist children and caregivers with home learning. While more needs to be done to include marginalised children, this is a good example of partnership yielding to innovative solutions.

Source: Warren & Wagner, 2020

Table 5: Summary of key challenges of ECEC institutional closure

Key challenges	Children	Parents and Caregivers[2]	Care providers
Access	Mainly for children of frontline workers	Intermittent or interrupted work routine with no childcare	Challenges related to compensation of pay
Equity	Missed meals for children of low-income families	Loss of income due to childcare duties	N/A
Health	Least affected	Working parents who rely on grandparents for childcare jeopardise grandparents' health	ECEC institutions that remained open and catered to children of healthcare workers may have posed a high risk of care providers contracting the virus
Quality	Low digital competence	Online tasks and learning tools were accessible for children from better-off families	Insufficient training

Source: PPMI team based on desk research

2.2.2. Policy responses, challenges and good practices in the second wave

In recent months, Member States have adjusted policies on ECEC as the pandemic has progressed into the second wave. The relatively calm months between the two waves allowed for further scientific investigation on the virus and its effects, as well as some evaluation of educational policies, in anticipation of the ensuing second outbreak. Numerous studies were concerned with understanding the disease characteristics of COVID-19 in children, with important implications for closure of educational institutions. Based on extensive evidence and studies, the European Centre for Disease Prevention and Control concluded several important messages in relation to ECEC (European Centre for Disease Prevention and Control, 2020):

1. "A small proportion (<5 %) of overall COVID-19 cases reported in the EU/EEA and the UK are among children (those aged 18 years and under). When diagnosed with COVID-19, children are much less likely to be hospitalised or have fatal outcomes than adults."
2. "Investigations of cases identified in school settings suggest that child-to-child transmission in schools is uncommon and not the primary cause of SARS-CoV-2 infection in children whose onset of infection coincides with the period during which they are attending school, particularly in preschools and primary schools."
3. "Available evidence also indicates that closures of childcare and educational institutions are unlikely to be an effective single control measure for community transmission of COVID-19 and such closures would be unlikely to provide significant additional protection of children's health, since most develop a very mild form of COVID-19, if any."

Consequently, as closing ECEC institutions is considered to be ineffective in halting the spread of the virus and young children are the least effected population, many countries seem to have postponed or avoided the closure of ECEC institutions in October and November of 2020. Another likely reason is the realisation of a country's inability to provide a suitable, remote substitution for early childhood education, which is coupled with parents' inability to work and hence reliance on state benefits for income. The combination of the realisations and lessons from the first wave led to a different approach in the second wave, namely, to keep institutions for young children open.

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[2] Child Caregivers look after the basic needs of children and, in the context of online education, took on a role of assisting with online learning as well. In some cases, especially when both parents were working, caregivers were family members (e.g., grandparents) or paid caregivers.

According to the interview with the International Step by Step Association, other evident differences between the first and second waves were the reaction of professionals and parents:

"*In the first wave professionals just started learning what was happening. In the second wave they started mastering online tools better and mobilised technology to produce resources (videos for example). They were also more creative and collaborative. There were communities of professionals created ad hoc, organically growing groups that were creative in finding solutions… Overall, in the second wave professionals were better equipped, and parents were more at peace with the situation.*"

These communities of professionals also possess invaluable expertise; international practice shows that involvement of such communities is beneficial not only for the system of education, but also develop better responses to the crisis (see Box below).

Box 3: Examples of community participation in education during the Ebola crisis

Examples from the countries affected during the Ebola epidemic show the importance of active community participation in the education response. Such community involvement also facilitated coordination across different services (UNDP, 2015). Programmes such as "Reading for Breakfast", a community reading club, facilitated the provision of books in basic subjects for learning purposes (Foboi, 2014). Community-led health education programmes, which promote peer education, facilitated information sharing and promoted safer practices. During these programmes, trusted and respected community figures, such as religious leaders, promoted behaviour change and educated the community (Polygeia, 2016). Active community participation means that affected community members participate in the analysis, design, planning and implementation of education responses. It can help mobilise local resources, identify and address various learning needs and challenges that are specific to the local community and context. Through collaborative decision-making processes, which are inclusive and transparent, parents and community members can also better express their needs and play a more important role in the education response.

As the second wave of COVID-19 intensified, it was clear that European countries were more willing to impose strict measures to combat the pandemic, but "made it their mission" to keep early childcare services and schools open (Reynolds, 2020). For example, when France entered its lockdown on 28 October, all non-essential business closed, socialisation was limited to only fundamental activities that were work- or medical-related, as well as grocery shopping; nevertheless, educational institutions remained open (Reynolds, 2020). In Hungary, similar restrictions were introduced, and when the pandemic further deteriorated, selective educational institutions were moved to remote learning: those that cater to young children, namely nurseries and kindergartens (ages 0-6) were kept open, as well as elementary schools (6-14) (Government of Hungary, 2020).

In all cases reopening of ECEC institutions was done carefully, with particular attention to hygiene (e.g., frequent hand washing and temperature checks) and efforts to prevent crowded places. In some instances, as in the case of Hungary, rather than closing ECEC, parents were asked to keep their children home if possible.[3] Unambiguously, limited or no institutional care and education provided to young children during the first wave of the pandemic has proved to be the most challenging aspect of

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[3] The Democratic Union of Hungarian Teachers has issued a plea to parents not to take their children to daycare and kindergarten if they can. See more at: https://www.szabadeuropa.hu/a/pdsz-orban-viktorral-vegre-szembejott-a-valosag-covid-pandemia-virus/30938328.html. Similarly, during the second wave of the pandemic, municipalities and districts have issued similar pleas to parents to keep their children at home if possible; see for example https://ujpestmedia.hu/aki-teheti-vigye-haza-ebed-utan-gyermeket-az-ovibol/

restrictions and closures, so EU countries, having learnt from their past experience, kept ECEC institutions open. German Chancellor Angela Merkel has aptly pointed out that keeping ECEC institutions open is not only important as an "educational mission", but also highlighted the "dramatic social consequences of closing schools and day care centres during the lockdown in March and April", naming the example of "violent assaults against women and children" (Nierenberg & Pasick, Europe's Locked Down, but Schools Are Open, 2020).

As the second wave is ongoing, it is hard to know what practices will prove to be most successful. It is increasingly clear that measures implemented in order to fight the pandemic may have serious economic, social, psychological and mental consequences. Measures that affect young children must be particularly sensitive to the effects of these restrictions, as impacts will be felt by families and children alike. Even though it is too early to draw conclusions from the restrictive measures implemented in the second wave of COVID-19, nevertheless, some reflections and areas of improvement may already be identified based on the countries' experience and analysis conducted of ECEC institutions during pandemic.

2.2.3. Reflections and areas of improvement: capacity to adapt, adequacy and efficiency of measures

For the level of early childhood education and care, several structural challenges and critical areas for improvement emerged, based on countries' experience from the first and second wave of COVID-19 measures. Among the challenges, the pandemic revealed that some countries are vulnerable to "care gap" and experienced shortage of childcare workers. For instance, in Austria, where migrant workers regularly provide long-term care, many migrants were unable to travel back to Austria from their country of origin and attend to their childcare duties, thus resulting in a shortage of childcare providers (Koslowski, Leave Policies in the Time of Pandemic: an overview from the International Review on Leave Policies and Research 2020, 2020). Parental leave policies and changes to mitigate the challenges of closing ECEC institutions also had significant effects: countries such as Hungary, Latvia and Slovakia extended parental leave entitlements during lockdown to alleviate the burden of finding a work-family balance for young parents. A similar measure in the form of "emergency leave" was also possible in Bulgaria, Netherlands and Sweden (Koslowski, Leave Policies in the Time of Pandemic: an overview from the International Review on Leave Policies and Research 2020, 2020).

"While there are no reliable reports yet," the International Step by Step Association revealed in interview, there are "indications that unitary/public systems coped better and proved more resilient. On the contrary, split and private systems were less resilient." The reason for public systems' resilience was primarily due to its financial stability, whereas private systems were more fragile and faced significant falls in income when parents stopped bringing their children and paying for the services (International Step by Step Association, 2020).

Overall, the ECEC system proved to be vulnerable in some areas, and these are areas that may need improvement. The areas with scope for improvement are: 3) careful consideration of the effects on children and families in case of institutional closure of childcare institutions; 2) improvement of pedagogical approaches; and 3) strengthening parental support. These considerations may significantly contribute to the transformation and resilience of this sector to be able to meet similar challenges in the future.

First, **pedagogical approaches** in early childhood education may consider adopting **age-appropriate digital/virtual tools** of interaction and learning.

Integration of digital tools is perhaps the most challenging for this age group, and it is not without its critics. At this stage of a child's development, learning is mostly focused on skills, competences and socio-emotional development each of which face-to-face necessitates social interaction. Free and/or structured play and group-learning activities are the most common pedagogical approaches that facilitate early childhood learning (Koslowski, Leave Policies in the Time of Pandemic: an overview from the International Review on Leave Policies and Research 2020, 2020), and especially the following (European Commission/EACEA/Eurydice, 2019):

- emotional, personal and social development;
- physical development;
- artistic skills;
- language and communication skills;
- understanding of the world;
- cooperation skills;
- and health education.

Yet, the full or partial closure, or various restrictions of ECEC institutions in many EU Member States prevented children from fully participating in such structured and observed group-based learning activities. The example of Croatia is noteworthy in experimenting with the notion of "virtual kindergarten", initiated by a group of ECEC teachers. Video or conference calls were considered by teachers as an alternative way to foster friendship and communication between the ECEC learners (Tokic & Vukasinovic, 2020). However, experts have warned that the lack of independent learning skills, attention spans and emotional maturity of ECEC-aged pupils prevents them from engaging in online learning (unattended) for a longer period of time (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020). In addition, the World Health Organization has also cautioned against children under the age of 5 watching screens for an extended time, as it may impair their healthy development (WHO, 2019).

In addition to innovations in pedagogical approaches, **capacity building for ECEC staff** also needs to take priority, especially in the fields of leadership skills, crisis management and knowledge of online security (Peeters, forthcoming). In other words, **professional development in ECEC** can come in the form of short interactive online courses or through professional learning communities on social media (ibid.). As a result, with advanced digital skills, including digital communication skills, and a more appropriate professional approach, online meetings or digital engagements – such as digital story telling – may take place even at times of lockdown.

Another area of improvement must be **parental support**. It is evident that engagement of pupils in online ECEC activities strongly depends on the presence of parental support. The critical role of ECEC in laying the foundations for skills development requires the professional mediation of ECEC educators in the learning process. Researchers have pointed out the disadvantaged position of pupils whose parents have lower levels of cognitive and non-cognitive skills to support their children, and whose parents cannot dedicate time to their children's learning due to their (home-based) work. They warned that children of parents with lower socio-economic backgrounds are particularly vulnerable in this regard (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020). This contributes to the divide in educational equity already during the early stages of children's development.

In addition, **appropriate protection and support for ECEC staff** must also be assured, so that they do not have to compromise their own health while providing childcare services during the pandemic. In

his preliminary findings, Dr Jan Peeters[4] showed that ECEC practitioners not only faced an ethical struggle, having to choose between their own health and the wellbeing of children, but were also demotivated due to their low salaries and infection of colleagues.

Given that "fewer than 5 % of COVID-19 cases reported in EU/EEA countries and the UK have been in persons under 18 years of age, the role of children in SARS-CoV-2 transmission remains unclear, especially in the context of educational settings" (European Centre for Disease Prevention and Control, 2020). Thus, the **advantages and disadvantages of closing ECEC institutions** to combat the pandemic must be carefully weighed. We are yet to fully appreciate the full extent of consequences of ECEC closures on young children and their families, especially in terms of health, social and material wellbeing. While remote learning mitigated educational loss for older children, for those under the age of 6 the lack of socialisation may pose serious consequences, and thus any restrictions must be carefully implemented.

Finally, the pandemic provided an opportunity to rethink early childhood education and its societal significance. Building on the hopeful prospects for ECEC shared by the International Step by Step Association during their interview, "there was an opportunity to see ECEC as an essential service and we advocated for it… We called on countries to rethink their economies considering ECEC as essential… ECEC should qualify as essential services, but we need certain leadership to do that. It is an opportunity that the crisis has brought" (International Step by Step Association, 2020).

2.3.   School education

KEY FINDINGS

- Remote learning in schools exposed and deepened already existing societal inequalities.
- Digital education practices were not always well integrated into learning practices.
- Many teachers remain unprepared for digital education and disadvantaged students have poor access to devices and fast internet.
- A more holistic approach (that includes the private and public sector, as well as various support networks) may be needed to assure a resilient school system.

School education encompasses a variety of age groups and models of education. Separating school education into primary, lower secondary and upper secondary education gives a better perspective of the educational goals and programmes for the given age group. Although the EU countries set their own educational policy and there is no uniformity, the general characteristics of the three levels of education are summarised in Table 6 below. Change of schools may be required in some countries between some of these levels of education, and while for many countries compulsory education coincides with the end of lower secondary education, mandatory years of education may also vary between countries (OECD, 2011).

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[4] Dr Jan Peeters is the lead researcher of a forthcoming NESET report (2021) on ECEC during COVID-19, prepared for the European Commission.

Table 6: General characteristics of different levels of school education in Europe

Level of school education	Starting age	Cumulative duration
Primary education	5-7	4-7
Lower secondary education	10-13	8-11
Upper secondary education	14-16	12-13

Source: European Commission/EACEA/Eurydice, 2018

2.3.1. Policy responses, challenges and good practices in the first wave

By the 17 March 2020, almost all EU Member States had implemented mandatory closure of compulsory education institutions. In 16 Member States, complete and mandatory closures were implemented immediately, while other countries first resorted to regional closures or to partial closures with certain exceptions (e.g. children of working parents in Austria) (The Guardian, 2020). Sweden, as it did in the case of its ECEC institutions, was the only country that did not completely close its schools; in fact, Sweden only closed upper secondary school institutions (for children aged 16 and older) while other levels of compulsory education remained open (Cedefop, 2020a). Table 7 summarises the various approaches of EU countries to closing schools during the first wave of COVID-19.

Table 7: Approach to closures of compulsory education institutions during the first wave of COVID-19

Immediate nationwide closure of all schools	Regional / partial closure before complete closure	No complete closure
Belgium, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovenia	Austria, Croatia, Finland, France, Germany, Italy, Spain, Portugal, Slovakia	Sweden

Source: The Guardian, 2020

The main trend visible across the EU was the **introduction of distance learning** for the continuity of compulsory education. Tools for distance learning included, for example, video classes, online courses, learning platforms and electronic textbooks (European Data Portal, 2020). The OECD noted that most initial policy approaches may not have been accompanied with a clear vision or policy goal. As a result, teachers and schools had increased autonomy to implement the shift to distance learning (OECD, 2020e). Nevertheless, what is clear was the abrupt shift to online education and with that the hasty discovery and use of educational technologies to provide remote learning opportunities for all students, while schools were closed as a result of the COVID-19 pandemic. Countries mobilised various strategies to assist with this sudden transformation, with TV broadcasting of education television lessons for students, learning platforms like Moodle, comprehensive e-learning systems and websites (sometimes launched by the Ministry of Education, as in the case of Bulgaria, Czechia and Croatia) or the introduction of virtual learning environments (such as in Finland) (World Bank, n.d.).

The main challenge reported across the EU was the **abrupt school closure** and interrupted learning. In those cases where online education was offered instead, often it was implemented without the existence of a quality framework for distance education. Arguably, no European country was fully prepared for the sudden digital switch (Bogoslov & Lungu, 2020). The introduction of distance education provided an ad hoc alternative to the classroom environment, to prevent gaps in students' education. In addition, teachers themselves were mostly unprepared. A survey across the EU found that 67 % of teachers provided distance education for the first time during the COVID-19 school closures in the spring of 2020. Not all teachers possessed sufficient digital skills to provide distance education and

faced problems in accessing and managing different technologies (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020).

While the vast majority of EU households possessed a computer and were connected to the internet, access was still not universal, and some children – especially from vulnerable and minority groups or in rural areas – were less likely to have the necessary digital infrastructure to participate in distance learning. For example, only 60 % of students in primary and secondary education in Slovakia could access virtual learning environments outside of school premises, compared to more than 90 % of their peers in Denmark (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020).

Besides access to online materials, recent research has shown that **quarantined students spend less time learning** compared to when they are in the classroom. The lack of personal contact decreases the external motivation of students to engage in learning activities and COVID-19-related stress and anxiety as well as a reduced oversight from adults hindered students' ability to concentrate. In most countries, following the closure of schools, students experienced learning loss, which affected disadvantaged students more severely (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020). A survey among Austrian, German and Swiss students found a learning reduction of four to eight hours per week, with 20 % of students aged 10-19 responding that they studied less than nine hours per week (Huber & Helm, 2020).[5]

Overall, the first wave of COVID-19 exposed some of the already existing weaknesses in the school education system and highlighted key areas where improvement is needed. First, issues of equality surfaced in two realms: students from deprived backgrounds tended to have limited access to computers, internet and hence digital learning resources (Stelitano, et al., 2020); and students from households that were economically more affected by the pandemic will be less likely to return to school, raising the drop-out rates (Azevedo, Hasan, Goldemberg, Iqbal, & Geven, 2020). Second, education assessment, examination and even awarding grades were inconsistent and lacked transparency, also affecting disadvantaged students more severely (GEM Report, 2020).

UNESCO conducted a comprehensive assessment of coping strategies adopted by countries in terms of student assessment and examination during the first wave (Chang, Huong, Moumne, Bianchi, & Rondin, 2020). According to their findings, the dominant strategies were:

- maintaining exams as scheduled and announced, but with special arrangements in place,
- cancellation,
- postponement/rescheduling,
- going online (online assessment),
- introducing "alternative approaches to exams and validation of learning (e.g. reducing the number of exams" (UNESCO, 2020), modifying the test format, appraisal of student learning portfolio without exam results)"

France was among those countries that cancelled its exams – an unprecedented move since the introduction of the *baccalauréa*t exam programme in 1808 – while Italy cancelled only the written exam and students took the oral exam. In Germany exams took place as planned, although not without student protests, and in Spain, the yearly university entrance exams were reduced to exclude questions that covered content studied since lockdown (Henley, Giuffrida, & Burgen, 2020). Overall, it is not yet clear which approach to these high-stake exams is the right one, while questions and doubts were raised regarding validity, reliability, and fairness (Liberman, Levin, Luna-Bazaldua, & Harnisch, 2020).

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[5] The Schul-Barometer (School Barometer) survey took place between 25 March and 5 April 2020. A total of 2,152 students from Austria, Germany and Switzerland took part in the survey.

It is probable that due to interruptions in education during the pandemic, **vulnerable students** with limited access to education would experience long-lasting learning loss (Carvalho & Hares, 2020). The challenges countries faced also allowed for solutions to emerge: as countries were leveraging technology and remote learning tools to continue education during school closures due to COVID-19, their partnership with the EdTech sector grew stronger. The World Bank's Edtech team compiled an impressive list of resources, initiatives and programmes that countries worldwide offered to students and educators to facilitate the continuation of education during the pandemic (World Bank, n.d.). These coalitions may allow the education crisis to be addressed and to become part of future education strategy.

International examples summarized in the Box below show that creating supportive environments is imperative for vulnerable youth to continue their education in times of crises. More specifically, community and family involvement into education promoted not only learning, but also wellbeing and motivation, and constituted a holistic support mechanism needed for vulnerable youth to succeed in education during crisis.

Box 4: International examples of continued education during crises

In crisis situations in Syria (Deane, 2016) or North Iraq (Dickinson, 2017) communities and NGOs recognised the importance of recreating the sense of normalcy and have focused on social and emotional learning (SEL) by prioritising social activities and integrating storytelling, art, music, or sport to conventional classes. Such classes helped the students bond better, and deal with anxiety and stress. SEL, similarly to psychosocial (PSS) approach, focuses on community and family involvement for more holistic approach. The SEL approach focuses on the development of emotional self-awareness, self-management, motivation, empathy, and social skills (Your Therapy Source, 2020). Consequently, it can also enhance academic achievement, student engagement and motivation, benefit the mental health of both students and staff and reduce the negative effects of exposure to crises (INEE, 2016). SEL-promoted skills can also contribute to ensuring social cohesion and building resilience.

Both the PSS and SEL approaches, focusing on community involvement, also encourage having additional support mechanisms for the especially vulnerable students who may need more specialised assistance (INEE, 2016). While regular educational activities alone can provide a sense of stability and help students adjust to changing situations (Winthrop, 2020), some learners may need additional assistance and support. A great example of how such additional support can be provided is the programme implemented by development and humanitarian organisation PLAN International in Sierra Leone during the Ebola epidemic. The organisation established 29 study groups for the most affected students, namely pregnant teenagers, orphans, and survivors. The participants of the study groups received psychosocial support through counselling sessions, individual meetings, and home visits. The programme also focused on child protection and educational input, which resulted in high rates of school return and increased academic achievements among the students participating in the study groups (Platt & Kerley, 2016). Having in place an effective additional support system for the most vulnerable students aids the teachers in cases where they feel they lack the knowledge and qualification to address the psychosocial needs of some students. In that way it reduces the workload of teachers and ensures that the students receive specific support they need and increase their resilience.

Although the EdTech industry is undoubtedly booming, we need to be cautious in treating technology as the foremost solution with no potential backlash. For example, intensifying the use of EdTech for

education will likely exacerbate the already existent digital divide. Globally, a staggering two thirds of school-age children do not have an internet connection in their homes, based on a new joint report from UNICEF and the International Telecommunication Union (ITU) (UNICEF, 2020b). In comparison, "from 2009 to 2018, the proportion of 15-year-olds in OECD countries with home Internet access increased from 85 % to over 95 %", indicating an unprecedented rise in connectivity (OECD, 2019). Yet, research demonstrates that marginalized groups tend to have poorer internet connection than dominant groups within the same country (Chen, 2016), making access to online education challenging. Furthermore, experts warn of the long-term effects of privatisation and commercialisation of education as a result of EdTech becoming an integral part of education systems globally (Williamson & Hogan, 2020).

2.3.2. Policy responses, challenges and good practices in the second wave

Having learnt from the challenges of the first wave, EU countries did not rush to close schools during the initial phase of the second wave. In fact, the continent's leaders seemed to have unanimously "adopted the advice of experts who contend that the public health risks of keeping children in school are outweighed by educational and social benefits" (Nierenberg & Pasick, Europe's Locked Down, but Schools Are Open, 2020). After the first wave, it was clear that there were conflicting needs and challenges associated with the closure of schools, beyond the need for education; namely, these included socialisation, mental health, economic aspects and parents' ability to work.

Additionally, countries have developed regulations to mitigate the dangers of spreading COVID-19 by requiring, for example, masks, smaller class sizes, social distancing measures and others. Table 5 below details some of the measures implemented in schools of Europe in September 2020, after the first COVID-19 outbreak and in anticipation of a new wave in the autumn or winter of that year.

Table 8: Measures implemented in schools of selected European countries to mitigate the spread of COVID-19 in September 2020

Country	Measures
Germany	Each state within the federal system has a degree of autonomy to decide on masks, with some states not making it mandatory, while in others, masks will be compulsory outside classrooms (stairwells, corridors, canteens, etc.) or everywhere in the school.
Italy	Smaller classes, rules on social distancing in schools, single desks to maintain distance between students, students and teachers required to wear masks, outdoor classes when possible, increase of public transport to safely travel to schools.
France	Rules on social distancing and mixing of class groups, masks mandatory for older students (11 years old and older), rules on disinfecting and ventilating classrooms.
Greece	Teachers and students will be required to wear masks in class and other indoor spaces, with each being given one fabric mask.
The Netherlands	If a student is infected, everyone in his or her household must stay home for 10 days. Children aged above six years who show symptoms must stay home and get tested. Some schools introduced their own mask requirements.
Norway	Classmates stick together and do not mix at school with members of other cohorts. During breaks, each class is assigned a different area of the playground. Children with symptoms must stay home and be tested for COVID infection.
Poland	Headmasters decide on use of masks in common areas and on whether to stagger school hours. Primary and high schools in cities such as Warsaw are crowded, and some educators say it will be impossible to respect social distancing rules even with staggered hours.
Spain	Mandatory face masks in class for children aged six and over. Students must wash their hands at least five times a day. Social distancing must be observed, except among members of a "bubble", a small group of children who must distance from members of other bubbles. Temperature checks are carried out each morning, at school or at home.

Sweden	Local authorities decide how to handle possible outbreaks, including the option of closing individual schools. Each school is responsible for following guidelines on social distancing and hygiene. Masks are not mandatory. Some municipalities changed school schedules to avoid crowding on public transport.

Source: Meyer, 2020 and Reuters Staff, 2020

Although the official standpoint explicitly prioritised keeping schools open, as the pandemic intensified and hospital capacities reached their limit, schools began to close. For instance, Czechia closed schools in mid-October, when the country became one of the most infected places in Europe. Based on the experience from the first wave, this was evidently a measure highly unpopular, for which the Education Minister has apologised: "I apologise to school directors. I apologise to parents for the permanent uncertainty. But it is necessary to do it and to do it fast", Czechia's Education Minister, Robert Plaga said (Associated Press, 2020). Similarly, Slovakia decided to close down most of its schools at the end of October (Lopatka, 2020), after which Germany and the Netherlands followed suit (Cohen, 2020). Yet, there is some indication that rather than getting used to remote learning, it may be getting harder to keep students engaged: a recent survey conducted in the second week of January in Dutch schools showed that teachers were struggling to keep primary school children engaged digitally even more so than during the first wave (DUO onderwijsonderzoek & advies, 2021). This study found that 1 in 3 primary school teachers were very concerned about learning progress if primary schools have to stay closed until the spring holidays; 77 % of teachers reported that vulnerable children were particularly affected.

Focus on students' wellbeing and mental health was more in the focus during the second wave. On the one hand, it became clear after the first wave that "school routines are important coping mechanisms for young people with mental health issues" (Lee, 2020). On the other hand, a general trend of "vicious cycles of increasing distress" was discernible among children and their families (Ford, John, & Gunnell, 2021). As a result, researchers warned that "Policy makers must recognise the importance of education to social and mental health outcomes alongside an appropriate focus on employment and economic prospects" (ibid.). International examples may be instructive in how other countries integrated social and emotional wellbeing into their approach to educational (see Box below).

Box 5: Attention to students' mental wellbeing during Ebola

During the Ebola epidemic in Liberia, the community organisations, with financial support from UNICEF and guidance from Liberian government institutions and national and international NGOs, developed a large-scale psychosocial expressive arts programme, which focused on building healthy relationships, trauma coping skills, and creative activities, such as art and play. The programme provided a safe and supportive space for children where they could grow through creativity, peer support and mentorship. These activities improved the mental health of participating students, reduced their traumatic stress symptoms, and helped them develop better coping skills (Decosimo, Hanson, Quinn, Badu, & Smith, 2019). The psychosocial (PSS) programming approach, like the one applied in Liberia, focuses on creating a feeling of security through recreational and expressional activities or collective community actions. It also highlights the importance of parents and community involvement in psychosocial activities (INEE, 2016). Consequently, PSS programming facilitates the development of social ties, meaningful peer attachments and friendships. It can ensure a somewhat normal flow of children's development and growth in emergency situations and increase the resilience of children.

Some countries, where additional restrictions were recently implemented, opted for a hybrid solution: in Hungary, for instance, since November 2020 classes above 8th grade (students aged 14 and older)

switched to remote learning, while all children younger than 14 years old continued with face-to-face education (Kaszas, 2020). Similarly, at the end of October, Italian Premier Giuseppe Conte kept elementary and middle schools open, but required that 75 % of high school students must have remote classes (CBS News, 2020). At this time, when French President Emmanuel Macron announced a second national lockdown in the country, he, too, explicitly stated that schools would remain open (BBC, 2020). Germany's November lockdown plans similarly required schools to stay open (Moulson & Jordans, 2020).

Overall, the second wave has been characterised by a more gradual approach to closing schools, which, in some cases, were closed or partially closed only after several other measures were implemented. The first wave of lockdowns provided a valuable lesson for schools: during the first wave, when schools in Europe were closed "out of an abundance of caution", says Andreas Schleicher, who oversees the PISA international assessment programme at the OECD, "research has shown that if you put social distancing protocols in place, school is actually quite a safe environment, certainly safer than having children running around outside school" (Kamenetz, 2020). Karl Lauterbach, a German health policy expert who helped design Germany's "lockdown light" is of the same opinion: "the biggest difference from the spring [COVID-19 first wave] may be that schools remain open in most countries [during the second wave of COVID-19]", admitting that: "the harm of school shutdowns outweighed the risks" (Kupferschmidt, 2020). Relying on these conclusions, countries developed emergency measures in the realm of education with more caution.

As the spread of the virus intensified in November and December, even more countries moved to a full lockdown. For instance, Sweden decided to close high schools in early December for at least a month and switch to distance learning, hoping to halt the spread of the virus (VOA News, 2020). Italy closed down its secondary and middle schools in November, after which students began protesting with signs "Learning at school is our right" (Roberts, 2020). In the same month, Austria locked down, shutting down primary and middle schools; high school and universities had been closed earlier (Euronews, 2020). Hungary also closed high schools in November but allowed elementary schools to remain open (Than & Dunai, 2020). Overall, with intentions to keep schools open during the second wave, health concerns preceded educational needs and a growing number of countries announced decisions to shut down schools.

The student protest in Italy was also a sign of dissatisfaction with the treatment of students, teachers, and educational institutions. In France it was both, students and teachers who organised strikes and protests, calling for stricter safety and hygienic measures in schools (France 24, 2020). Another impressive mobilisation of teachers occurred in the Basque Autonomous Community, where teachers, with popular support, demanded implementation of safety measures in schools (ETUCE, 2020). Fears had risen as more cases of COVID-19 were reported in schools (TPN/Lusa, 2020); while some were ordered to close, countries like Ireland did not authorise schools to close in the period leading up to the December holidays, despite surging numbers of infected students (O'Brien, 2020).

Overall, with the rapid changes to the spread of the virus during the second wave, there had to be urgent responses and adaptation to the rapidly evolving situation. Meanwhile, according to a study conducted by the OECD, a third of teachers already felt undervalued and unsupported years before the pandemic (OECD, 2014), and this feeling only exacerbated by the pandemic. For example, a study conducted in the UK shows that as a result of the pandemic, half of the school teachers felt unappreciated and reported their mental health decline (Education Support, 2020). As a result, teachers' stress level and anxiety are high and their mental health is compromised (Beswick, 2020). In general, there was a mixed feeling of relief and risk already in September, when schools opened. There

is still a general sense of confusion on how schools should operate and how education should be carried out during the pandemic.

2.3.3. Reflection and areas of improvement: capacity to adapt, adequacy and efficiency of measures

For school education, invaluable lessons were learnt after implementing restrictive measures during the first wave of COVID-19. Consequently, European countries adopted a more cautious approach to school closure during the second, ongoing wave of the virus, with results yet to be seen. Nevertheless, some reflections can already be made, which may serve as the foundation for transforming school education into a more resilient, reliable, and efficient system.

First, it is important to recognise the **possibilities and limitations of remote learning for different age groups** within school education. Studies suggest that upper secondary education students often have more possibilities to study remotely compared to primary and lower secondary education, based on the distance learning environment that was available to them (European Commission, 2019c). Digital education provides various advantages for learners in higher grades who have already developed independent learning skills (Herold, 2017). In other words, while there is higher learning independence at the upper secondary education level, there is a higher need for teacher-led instruction at the lower levels. Consequently, continuation of in-person education for young school-age students is imperative, even in times of a pandemic.

Second, teachers must be given **support with developing digital materials** suitable for remote teaching. Currently, most compulsory education materials are designed for classroom use and classroom pedagogies. A major consequence of this approach is the increased theoretical nature of education and the absence of more practical (skills-based) assignments (Bogoslov & Lungu, 2020). Importantly, teachers need support in how to use the materials in a remote or virtual learning environment, including the various pedagogies, strategies, and tools available. These materials, in turn, integrated into the education system will strengthen resilience.

Third, like ECEC, the involvement and **support of parents** is crucial for the learning achievements of school-aged children during the distance-learning approaches. In prior studies, researchers found that better educated parents can be more efficient in supporting their children with their education, and that online education only improves learning when parents can serve as instructors (Holmlund, Lindahl, & Plug, 2008) (Vigdor, Ladd, & Martinez, 2014). Similarly, in a recent OECD study on education under COVID-19, the authors conclude that "Education systems should aim to strengthen engagement between schools and parents in order to improve information and guidance to parents on effective practices for supporting their children's learning" (OECD, 2020f). Parents from disadvantaged socioeconomic backgrounds more often lack the cognitive and non-cognitive skills to support their children effectively, and do not have the digital skills to support children with the distance learning infrastructure. This is particularly impactful for children at a younger age who are unlikely to possess digital skills themselves (Di Pietro, Biagi, Costa, Karpinski, & Mazza, 2020). Parents with a better education and socioeconomic status may also be better able to provide emotional support and create stress-free learning environments at home (e.g., due to lack of financial issues), as was demonstrated through a recent survey in France and by the PISA 2018 results (Helary, 2020). To improve resilience, these skills need to be integrated into the adult education system.

Support for teachers is also critical, in terms of professional development, improving digital skills or developing guidelines – assistance that was in part provided by the EU and national governments alike, and can be strengthened on the future. Learning from international examples, systematic review of

literature and best practices in the field of digital education with the purpose of developing recommendations for the national context may also support teachers in their work (see Box below).

Box 6: Support for teachers during emergency situations

The 'Disrupted Classes, Undisrupted Learning' programme (McAleavy & Gorgen, 2020), initiated by the Chinese Ministry of Education shows how important timely assessment of the emergency situation and potential effects of education responses are, considering that some educational interventions can have unexpected negative consequences, such as increased exclusion, or be ineffective (INEE, 2010). The 'Disrupted Classes, Undisrupted Learning' project team reviewed existing international literature on skilful remote teaching and identified some of the main challenges that should be addressed. The team proposed a set of carefully assessed pedagogical techniques and recommended various assessment techniques based on "fitness for purpose" criteria (McAleavy & Gorgen, 2020). The 'Disrupted Classes, Undisrupted Learning' programme was a support mechanism for teachers. It facilitated information sharing and provision of flexible online learning. Educators did not have to spend time analysing the efficiency of pedagogical techniques, or assessing teaching practices and tools, but instead were able to easily access recommendations for the most effective pedagogical and assessment techniques and online platforms. Consequently, they were able to spend more time and energy on teaching and ensuring quality of education.

In a recent study, OECD assessed the role of families and teachers in supporting students during the COVID-19 crisis (OECD, 2020f). The study also provides examples of strategies that some countries used to improve digital skills for teachers and parents, recognising that parents and educators, as the primary support network of students, need support to successfully adapt to the rapidly changing situation, and be able to assist school-age children (see "best practices" box below).

Box 7: Support to parents and teachers during COVID-19

France: France has capitalised on and mobilised its network of local digital education advisers, in order to ease the transition from face-to-face education to distance learning and assist teachers in the process. This network, in fact, was able to support not only teachers, but also school principals, who received online training about digital resources for pedagogical practice.

Latvia: Latvia's Educational TV Channel Tava Klase, delivers high-quality educational material and targets parents, as well as teachers and students. Moreover, curriculum content for broadcasting was developed in cooperation with parent associations and the National Centre for Education. This approach resulted in reconceptualising teaching as a team activity, leading to stronger school-parent links and more successful support of students.

Source: Phair, 2020; OECD, 2020f; and Van der Vlies, 2020

Fourth, equity and access remain critical areas, but improvements were also noticeable. For example, one school that teaches disadvantaged Roma students in Hungary, having learnt from the challenges of the first wave, assured that all households started the new academic year in September with computers and internet access, and adjusted the digital tools to be compatible with lower-quality devices. The school director stated that digital education in the second wave of COVID-19 was smooth and effective (Vilaggazdasag, 2020). **Adaptation is seen not only on a local level, but globally as well**: there is an ambitious vision emerging from this global pandemic towards a stronger public education system, which may build on public–private coalitions, especially involving the EdTech sector.

In fact, during the pandemic "commercial digital learning platform providers have rushed to provide their support and 'solutions', sometimes for free" in many countries (Teräs, Suoranta, & Teräs, 2020).

There are two remaining challenges: first, the conditions regarding collaboration of schools with the private sector must be negotiated, especially because the design of some digital learning solutions "might not always be driven by best pedagogical practices but their business model that leverages user data for profit-making" (Teräs, Suoranta, & Teräs, 2020). Second, the reformed education system will have to be more sensitive to the "schools' essential caretaking role in society", which greatly contributes to students' (and families') wellbeing, recognising that "strong and inclusive public education systems are essential to the short- and long-term recovery of society" (Vegas & Winthrop, 2020). Some also argue that a "business model" (Amitabh, 2020) to education may be the key, which implies:

- Traditional degree courses making way for companies offering focused training in soft skills, core skills, critical thinking, or an opportunity to network.
- Shorter courses, ROI-oriented career choices and a switch to lifelong learning will power new business models in education.
- Person-to-person contact as well as AI will be essential to the future of education.

This position, however, has many critics, who argue that the "business model" to education is not only destructive, but also diverts away from teaching students, which is the traditional mission of educational institutions (Katopes, 2009) (Carlson & Fleisher, 2002).

2.4. Vocational education and training

KEY FINDINGS

- During the first wave, most VET institutions closed, and work-based learning was cancelled or postponed. Classroom education was replaced by virtual learning. Exam regulations were adjusted to provide alternatives to or postponement of traditional exams.
- The main challenge identified for VET was the lack of practical training during lockdowns. In the absence of adequate alternatives, the quality of education significantly deteriorated during the school closures.
- VET institutions have less capacity to transform and innovate in the face of adversity or unforeseen events. They are also dependent on the decisions made by businesses hosting apprentices. This prevented institutions from adapting to suitable online methods or providing alternatives to work-based learning. Certain good practices involved the exchange of resources between institutions.

The vocational education and training (VET) sector is often considered the most diverse type of education as it can take place in numerous forms. VET can take place within the school setting or in separate education institutions, and generally includes some form of workplace learning. Different categorisations and classifications are used to define VET across Europe. Initial Vocational Education and Training (IVET) is carried out as part of the initial education system and takes place in preparation for the labour market. Continuing Vocational Education and Training (CVET) is a term used for VET for persons already active in the labour market who wish to upskill or acquire new skills.[6] The different approaches to defining and framing VET across the EU (e.g. Cedefop, 2017) pose a challenge to the

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[6] Definitions provided by EQAVET, accessible via https://www.eqavet.eu/EU-Quality-Assurance/Glossary

analysis of policy approaches to VET in the context of COVID-19 institutional closures. In addition, generally all types of VET rely on a strong practical training element and have a significant socialisation dimension as well, when networks developed may be fruitful in the later careers of the participating youth. These aspects were immediately threatened during both waves of COVID-19 and necessitated a solution (Stakeholder Workshop, 2020).

2.4.1.   Policy responses, challenges, and good practices in the first wave

During the first wave of COVID-19, most VET schools and institutions across Europe were closed, as was the case with compulsory general education. VET students faced a double disadvantage due to the COVID-19 restrictions, namely due to the closure of VET institutions, and due to the closure of many businesses where work-based learning takes place (United Nations, 2020b). Therefore, the VET sector has been uniquely affected by COVID-19. Education institutions needed to implement distance learning and social distancing measures, but also adapt to potential changes in the labour market in the upcoming years as a result of COVID (OECD, 2020g).

Across the EU, VET providers have shifted their classroom education programmes to distance learning in order to ensure continuity of education. Pedagogies for VET are mainly developed by the institutions themselves, allowing providers to adapt and transform content as they see fit (within the scope of professional quality standards). In some countries, this is taking place through online environments such as IT platforms, conference applications, messaging services and even national television (European Commission, 2020a). While online education mainly addresses the theoretical aspects of education, some providers have developed videos or step-by-step instructions to demonstrate the practical aspects of a VET profession (European Commission, 2020b).

The European Commission, as well as a VET institution representative noted that the choice of available distance materials is quite large and confusing, which makes it difficult for VET trainers to select and organise distance learning as well as to use tools to create their own distance learning programmes. For this purpose, the Croatian Agency for VET and Adult Education has set up a portal and invited VET teachers, employers and other stakeholders to develop and share digital education materials related to vocational subjects (European Commission, 2020a). However, the European Commission found in a survey of VET providers that "only in a few cases did the online teaching activities involve video demonstrations or the use of step-by-step instructions to show practical skills related to a specific VET profession" (Bogoslov & Lungu, 2020). A representative of the European Vocational Training Association (EVTA) warned that step-by-step videos and distance explanations cannot replace the practical experience gained by actually doing something and getting direct coaching and feedback from a trainer or mentor (European Vocational Training Association, 2021). Theory and practice are meant to complement each other: "I cannot bring a student's theoretical knowledge to a higher level until he/she has also learnt the corresponding practical skills" (European Vocational Training Association, 2021).

Aside from theoretical education, a crucial dimension of many VET programmes includes the practical training that takes place in work-based learning settings as well as in the classroom. As classroom education became prohibited, teachers were required to find online solutions for practical training. A European survey among VET stakeholders found that in most cases, online education focused solely on theoretical knowledge and on general subjects instead of vocational content (European Commission, 2020a). Similarly, VET exams rely to a large extent on practical examinations which were often cancelled. In some countries, students in the final year of programmes were allowed access to schools to prepare and take their final exams, which were required for graduation. Other countries

waived final exams and issued diplomas based on formative assessment, or postponed exams (Cedefop, 2020b).

Besides practical training in the classroom, COVID-19 has seriously disrupted work-based learning and apprenticeships, which have been suspended in most sectors (European Commission, 2020). As presented above, some elements of practical work have been replaced by videos, but they cannot account for the learning of skills through direct experience and stripped students of the opportunity to forge professional networks and socialize (United Nations, 2020b). Additionally, apprenticeships are more difficult to assess at a distance.

Employers are also likely to first cut back on internships and apprenticeships during economic crises (OECD, 2020g). The EVTA representative noted that during the pandemic, company investments in re- and upskilling is a last priority, particularly in the catering industry. Additionally, he expects that – depending on the sector – the recovery and reintroduction of apprenticeships may be a lengthy process (European Vocational Training Association, 2021).

However, the extent to which VET students have been affected also depends significantly on the sector they are trained for and the restrictions in individual countries. In countries with a complete lockdown, students who train for highly practical sectors such as construction or hairdressing are likely to face more detrimental effects on their education compared to sectors where work can be done online (e.g. secretarial work).

Besides clear challenges to the implementation of VET programmes, various VET providers across Europe have adjusted their programmes to ensure continuation of education and training. The following box highlights some examples that represent the main efforts made by countries and institutions to address the challenges created by COVID-19 and the mitigation measures.

Box 8: Examples of innovative solutions in VET

In terms of access, various governments and private providers ensured the continuity of education through digital media. The Greek government arranged with three big telecommunication companies in Greece to provide unlimited free access to the online platforms developed by the Ministry of Education to offer e-learning to all VET learners (Cedefop, 2020c). Similarly, the French Ministry of Labour provided online VET courses free of charge for a period of three months, including the core curriculum of vocational schools and main training courses for professional qualifications (OECD, 2020g).

In the Austrian construction sector, a digital training portal had already been developed in 2019 for apprenticeship occupations. This offer of the Bauakademien (construction academies), inter-company training institutions in the construction industry, with 70 online courses, 373 specialist topics, 90 instructional videos and 2,900 knowledge checks, has now been opened up to other educational institutions such as colleges of engineering and universities of applied sciences (Cedefop, 2020d).

In Sweden, to facilitate practical learning, work-based learning programmes and apprenticeships were still carried out if the workplace was willing to take on a student and was able to ensure his/her safety. However, companies offered significantly fewer opportunities for work-based learning programmes and apprenticeships due to the economic impact of the COVID-19 and the high risk of the infection. VET schools that were not able to find a suitable workplace for their students were allowed to organise vocational training activities for small groups of students in the school premises (Cedefop, 2020e). The Swedish universities and VET institutions were also able to organise their practical exams, which had to be taken in person. Exams in VET programmes had to be carried out

in person and were necessary for students to graduate. Consequently, exceptions to the rule were made and students were able to come in smaller groups keeping safety regulations and take the exams (Swedish Ministry of Education, 2020).

An example of a VET school in Czechia shows how it is possible to improve decision-making during crises and help not only the students and the staff of the school, but also the wider community (Smíchov Secondary Industrial School and Grammar School, n.d.). At the beginning of the crisis, the school management started actively communicating with the students on how to design and organise distance learning and teaching. As the students possessed extensive knowledge and skills on various digital tools and platforms, the school administration invited them to share their knowledge with the teachers and assist them with implementation of digital classes and use of digital tools in a creative and inclusive way. The VET school scaled up their initiative and the students helped not only the teachers in their school, but also other teachers in primary and secondary schools (Czech National Agency, 2020).

Collaboration between the government in Indonesia and the private sector on the VET response to crisis shows how collaborative decision-making can improve the emergency response and acknowledge the needs of the affected community. Due to the COVID-19 pandemic, the demand for skilled employees in the IT sector has increased significantly, but nearly all industries and VET institutions have suspended their face-to-face activities. The Ministry of Manpower in Indonesia, acknowledging the importance of skills development and the existing mismatch between the needs of the industry and the skills taught, has approached the private sector to continue providing the school-to-work transition programmes. It has also collaborated with various organisations, such as Jakarta Japan Club, to encourage their members to be a part of the skills development programme. The Ministry of Education has also developed some curriculum elements together with industry to include industry-based certification, lectures from industry practitioners, direct-learning-learning programme in the industry, and the absorption of graduates by industry (ILO, 2020c). This inclusion of the private sector in the decision-making process in education benefits not only the VET students, but also private sector companies and the economy. Such coordination mechanisms give the private sector an opportunity to share their expertise or take the lead on the implementation of measures with which they have more experience than the government or education institutions.

Similar to compulsory education, the pandemic increased inequality among VET students. Besides the common challenges on the digital divide, the pandemic caused additional barriers for children from poorer economic backgrounds and for migrant children.

The EVTA representative indicated that, compared to university students, VET students are a more vulnerable group of students during the pandemic. He believes that students often show lower motivation and independent learning skills to keep studying through distance learning, especially during the first year. In his experience, VET students also have less support at home, for example parents who encourage and support distance learning (European Vocational Training Association, 2021). For instance, migrant youth (an already vulnerable group in education and society) are often overrepresented in VET schemes and their disrupted job placement can have a significant impact on both their financial status and immigration status (Majumdar, Araiztegui, & Tknika, 2020). It would be useful to conduct a separate, in-depth study on the situation of migrant learners during the COVID-19 crisis.

In cases where apprenticeships are paid or remunerated, students from poorer backgrounds are affected more significantly by the company closures. The European Trade Union Confederation (ETUC)

informed that during the first wave, the rights of apprentices under collective agreements were sometimes not respected, apprentices were required to work as employees rather than receive their right to training (where businesses remained open or managed to arrange online work), and salaries remained (partially) unpaid (ETUC, 2020). Students who depend on this income to finance their education may drop out of their VET programme to find other employment. Cedefop also warned that disadvantaged students are more likely to drop out during distance learning when they do not have (sufficient) ICT equipment (Cedefop, 2020c).

The capacity of VET providers to continue VET during lockdown differed strongly by individual teachers and institutions. A key issue of VET in general, and exacerbated by the pandemic, is the lack of a quality control system for VET. An interviewed VET representative explained that the quality of VET distance education therefore strongly depends on the willingness and motivation of the individual teacher to train themselves to use new digital technologies. In his experience, he saw both teachers who reverted to merely one-sided "lecture style" education and teachers who trained themselves to use new, interactive teaching techniques suitable for the online context (European Vocational Training Association, 2021).

An OECD survey of teachers indicated that only 56 % received ICT training as part of their teacher education and only 43 % felt "well" or "very well" prepared to provide online education. For example, in Germany, schools were well-prepared in terms of equipment, but teachers were not used to creating digital content (Schleichter, TALIS 2018: Insights and Interpretations, 2020b). Similarly, devices and content are available to VET teachers in Romania, but they lack the skills to use them effectively (Cedefop, 2020c). Therefore, EU Member States (ministries, local authorities and other stakeholders) arranged various training activities for teachers, learners and enterprises on how to continue VET during lockdowns (Cedefop, 2020b).

However, a challenge to holistic support to the VET dimension in some countries is that this level of education falls in some countries under a different ministry from other levels of education. As a result, extra effort is needed to ensure that education response measures are coordinated to cover VET as well. For example, some of the platforms and materials that are used for general education can also be relevant for VET. The World Bank warned that VET institutions generally have less capacity to develop ad hoc and effective strategies for education continuity when compared to universities (Hoftijzer, Levin, Santos, & Weber, 2020). Additionally, interviews with education ministries showed that the autonomy of VET institutions in some countries can prevent the ministry from having clear insights and knowledge about what is going on in the sector, and this, in turn, prevents governments from providing immediate support (Swedish Ministry of Education, 2020) (Estonian Ministry of Education, 2020). However, a VET institution representative indicated that his institute is foremost a private enterprise and therefore does not rely directly on government support or intervention (European Vocational Training Association, 2021).

By May 2020, when the infection rates of COVID-19 had significantly subsided throughout Europe, countries worked on reopening and restarting VET programmes both in class and in work-based settings. Like other levels of education, the classroom settings required high hygiene standards and safety measures, while apprenticeships could continue only in companies where safety could be ensured (except for the sectors most affected by lockdown, such as hospitality, gastronomy, and the retail trade). In the Netherlands, for example, practical training in companies resumed for both school-based and dual VET, while schools remained closed and teachers supervised learners remotely (Cedefop, 2020b).

VET learners are clearly among those most affected by the first COVID wave due to the closure of both education and work institutions. VET learners experienced not only a gap in learning progress, but also in practical experience and – to some extent – in income. In the school year 2020/2021 (even before the second wave), VET learners are still affected by the impact of the first wave, due to a decrease in apprenticeship places (related to the economic crises), shortened and disrupted apprenticeships over the past year that cannot always be resumed. Overall, the UN considers that the challenges witnessed in VET during the first wave of COVID resulted from existing structural weaknesses in the VET system. These include the low extent of digitalisation, and low flexibility of work-based learning to adapt to different circumstances (United Nations, 2020b). The long-term effects of the first wave on VET learners are likely to linger on, closely linked to economic recovery and the ability of businesses to host apprentices again (Schleichter, 2020a).

2.4.2. Policy responses, challenges and good practices in the second wave

October and November 2020 were characterised by renewed lockdown measures and restrictions on social contact. In many countries across the EU, numerous non-essential businesses had to close again and education was shifted back online from December. VET learners at this stage were still suffering from the impact of the first wave: ETUC warned that drop-out rates from VET schools and apprenticeships have been considered the highest among all education levels, leaving vulnerable youth in NEET situations (ETUC, 2020). The VET institution representative also noted the delays in training and graduation caused by the terminated or postponed apprenticeships (European Vocational Training Association, 2021).

A review of the practices of Member States in autumn has shown that policymakers have considered the major impact of lockdown on VET during the first wave and tried to keep practical training possible as long as feasible. In fact, countries have formulated their lockdown measures in a way to allow for apprenticeship programmes to continue (see examples in Box 9) until at least mid-December when the second wave reached its peak.

Box 9: Examples of lockdown measures facilitating apprenticeships during autumn 2020

Slovenia: Apprentices who are already on practical training with work continue to carry it out according to the instructions and measures of the employer. The same applies to students who would start conducting practical on-the-job training during this time. If the employer does not accept the students, the practical training with work is postponed to a later date (The Chamber of Craft and Entrepreneurship of Slovenia, 2020).

Italy – Piedmont Region: ITS (Higher Technical Education) courses and professional training courses funded or recognised by the Piedmont Region, as well as their final exams, must be delivered remotely. All curricular and extra-curricular internships in production, industrial and commercial activities can continue, as long as they comply with the shared protocols for regulating measures to combat and contain the spread of the COVID-19 virus in the workplace signed between the Government and social partners (Regione Piemonte, 2021).

Finland: Workplace training and traineeships that are organised outside the educational institution will continue if the workplace can do so and the education provider and employer deem the working environment safe for the student. If there is a high risk of contracting the coronavirus in the workplace, it is recommended that workplace training be suspended and continue only after the risk no longer exists (Ministry of Education and Culture of Finland).

France: During the new lockdown period in autumn 2020, certain derogations from lockdown measures exist for VET programmes, namely training organisations receiving trainees for the needs

of vocational training, when it cannot be carried out remotely. Additional exceptions exist for training of public officials, for maritime VET, for ship operation VET, artistic training, and military training when the training cannot be done remotely (Centre Inffo, 2020).

Netherlands: Apprenticeship programmes are still allowed. The VET council (MBO raad) put into place strategies and recommendations to ensure that VET students can participate in apprenticeship programmes, e.g. through adjustments to the original learning programme; adjustments to the apprenticeship programme and active recruitment of new apprenticeship businesses. The various adjustments ensure that students can still participate in an apprenticeship without experiencing significant delays in learning (MBO Raad, 2020).

Belgium: Alternating apprenticeship contracts are authorised in all companies that can exercise their activity. Learners therefore continue their training in these companies. Sanitary rules are applied in business. However, adaptations of these rules can be made depending on the sector or the training company (IFAPME, 2020).

Adjustments to VET programmes in the COVID-19 context are increasing across the EU. In most cases, such as in the Netherlands, the adjustments are aimed at ensuring that apprenticeships can continue in a shortened or blended form with both in-person and online elements allowing for rotation of apprentices within a company. A reduction of mandatory apprenticeship hours is also a common approach. In Spain, for example, the mandatory requirement of 400 training hours was reduced by half (TeleMadrid, 2020). Austria introduced "short-term work" among the apprenticeship requirements while 50 % of the remaining time should be covered by training-related activities for which funding is provided. However, this training requirement was halted during the latest November lockdown (WKO, 2020). Short-term work in Germany was also introduced as a measure, but only as a last resort. Due to the federal states structure of Germany, each VET institution and state can determine whether they want to halt VET programmes during the second wave. However, the federal state guarantees that apprenticeship salaries will be paid even when the apprenticeship is (temporarily) cancelled due to COVID-19 (Ausbildung.de, 2020). The VET institution representative noted that although such shortened or adjusted work-based learning prevents significant delays and facilitates graduation, it does mean that students will graduate with less knowledge and experience (European Vocational Training Association, 2021).

However, an expert workshop participant noted that the second wave was characterised by less availability of work-based learning. Companies are more concerned with their financial stability and do not perceive an apprentice as contributing to their short-term recovery plans (Stakeholder Workshop, 2020). The Dutch VET council posted guidelines for institutions on how to recruit companies for apprenticeships and disseminated information on the benefits of having apprenticeships (MBO Raad, 2020). A VET representative mentioned that these efforts are unfortunately not very successful, since companies still prioritise their sustainability (European Vocational Training Association, 2021).

While practical training continues in most cases, the VET institution itself as a classroom education provider switched back to online education in most countries, for example in Lithuania (Ministry of Health of the Republic of Lithuania, 2020), Romania (schools closed and further education institutions decide themselves) (Romania Insider, 2020), Czechia (University of Ostrava) and Poland (Polish Ministry of Education and Science, 2020). This means that the theoretical part of VET, as well as practical education in the classroom were again switched to virtual education. By the start of the New Year, most of Europe experienced extensive lockdown measures, halting almost all face-to-face contact, including VET and apprenticeships.

Overall, educational measures and restrictions during the second wave have been considerably more lenient to the VET sector as the practical aspect of VET was allowed to continue in many countries. Policy documents indicated that practical and work-based training generally should not be disrupted until the health situation requires a complete lockdown. Additionally, VET institutions and policymakers have been adjusting graduation requirements to prevent significant study delays, but were also looking into methods to encourage and stimulate businesses to take apprentices.

One main challenge that remains in the VET sector is distance learning, especially for the practical dimension of VET. Although various stakeholders across the EU Member States have provided ICT and distance learning training and materials for VET teachers, there is no evidence of whether VET teachers have become better able to provide distance education. Additionally, it is still premature to assess how it has affected practical education. It is reasonable to expect that even with a less restrictive environment during the second wave of COVID-19, there were adverse consequences for VET students and their learning progress.

2.4.3. Reflections and areas for improvement: capacity to adapt and adequacy and efficiency of measures

The first wave of COVID-19 and measures taken by the education system in relation to VET showed a clear unpreparedness for crises which impacted face-to-face contact. The VET system relies to a large extent on practical education and practical workplace experiences and it is clear from the first wave that no alternatives existed. Even the impacts of the first wave have not been addressed and mitigated fully. Measures taken by VET institutions included virtual education, while on-the-job training was mostly cancelled. Due to the autonomy of VET institutions, governments were not able to provide appropriate support other than financial support for missed income. Therefore, the practical side of VET was severely disrupted.

It can be noted that "classroom" VET was less affected than work-based VET. Within schools or institutions, teachers still had the obligation or job to ensure continuation of the programme. Indeed, providing education is the main priority of the institution. Work-based VET is dependent on the attitudes and priorities of employers and companies, who do not perceive apprenticeships as a priority during a (financial) crisis. An important recommendation provided by a VET representative was to enhance training for workplace mentors to understand the value of apprentices in the company and to balance between financial stability of the company (which benefits from short-term, high productivity) and the learning process of the apprentice (which requires investment while the benefits are visible only in the longer term).

The OECD noted that VET institutions and policymakers across Europe have introduced various measures to mitigate the impact of VET school and business closures on learners; these measures include: wage support for apprentice retention to allow apprentices to maintain contact with employers; financing training breaks or extensions to avoid breaks in learning resulting in fees, repayments or other penalties; and leveraging links between work-based and school-based VET to provide alternative school-based VET in cases where upper secondary VET students are unable to secure an apprenticeship (Schleichter, 2020a). These measures may not compensate for learning loss and practical skills but may mitigate the loss of apprenticeships and income. However, one EU VET survey respondent was concerned that "because of the crisis, funds are moved from VET to unemployment benefits or other emergency measures" (European Commission, 2020a).

The second wave of COVID demonstrated both a positive and a negative trend. On the one hand, current measures of governments to keep practical training possible shows that governments learnt from the first wave about the severity of disruptions of practical training on learning progression in the

VET sector. However, it also demonstrates the limited capacity of VET institutions to develop alternatives to face-to-face training. The fact that training facilities need to remain open shows that no virtual learning materials are of sufficient content and quality to account for a lack of face-to-face training. There is a clear lack of innovative or transformative capacity and resilience within VET institutions – in the short term – to design virtual programmes, or even step-by-step videos, that can only replace practical experience to some extent in the context of a crisis. Additionally, a virtual environment can never fully replace the practical experience and the better the virtual experience, the higher the associated costs. Therefore, the VET sector remains highly vulnerable to future crises and requires highly innovative, immersive solutions for the inclusion of practical elements in virtual learning.

According to OECD, there is an urgent need for countries to improve their VET systems so that they emerge from the current crisis stronger, more resilient, and more responsive than before. One of the ways to do that is by engaging with employers and trade unions at national and local levels and ensuring that VET today is relevant for the labour market demands of tomorrow. Increased acceptance of digital communication tools due to the crisis may facilitate new communication channels with the employers that were not there before (OECD, 2020g).

For instance, Germany has implemented a project "connect2company", which was initiated before COVID-19, and became especially important during the pandemic. It aims to improve and intensify cooperation between VET institutions and companies that take apprentices from VET institutions. The "connect2company" platforms allow continuous exchange of training and teaching content and innovations. Various companies can be partners of the VET institutions and organise excursions, lectures and learning opportunities (Connect2Company). France allocated no less than EUR 2 billion within its COVID-19 recovery plan for the "recruitment of apprentices (IVET) and professionalisation contracts (CVET)" to enhance the connection between VET and the post-COVID-19 labour market developments (Cedefop, 2021a).

In conclusion, the OECD believes that "the lockdown may ultimately result in stronger and more resilient VET systems if the right choices are made today". A variety of transformations and innovations in the VET sectors are necessary to achieve this, namely crisis management plans for VET students that target both VET institutions and apprentice-hosting companies; derogation of crisis mitigation measures for VET (where possible); and wage support for apprentices where training is discontinued. Sufficient funding for VET to facilitate innovation is crucial in this regard (OECD, 2020g).

2.5.   Higher education

KEY FINDINGS

- Responses to the pandemic in the higher education sector vary significantly between and within countries.
- The COVID-19 crisis has exacerbated existing problems in the higher education sector.
- Most of the higher education institutions had some experience with digital remote education, but it was still challenging for them to switch to remote education on a large scale.
- Most of the higher education institutions implemented emergency remote teaching, which at the outset did not adopt the concept of online pedagogy but replicated contact teaching in remote education settings.
- Ensuring student engagement and equal access to education during the pandemic has been a serious challenge, mainly due to the existing digital gap; a lack of adequate responses to this challenge may result in increased dropout rates and more inequalities in higher education.
- Some higher education institutions have provided financial support and special loans for the students facing financial hardships due to the pandemic, but it was not done across all higher education institutions in the EU.
- Third-country nationals studying in the EU often faced significantly more uncertainty not only about the continuation of their studies, but also their ability to stay in the EU.
- The responses to the pandemic in the higher education sector did not change significantly from the first to the second wave – most of the higher education institutions operate remotely.
- The higher education institutions were able to partly address the lack of digital infrastructure and lack of digital skills during the second wave, but challenges related to access to education and growing inequalities still remain.

In the European Union, each country has its own system of higher education. However, these systems are all part of the European Higher Education Area, which helps ensure compatibility of the higher education systems across Europe. Higher education institutions across Europe offer three main qualifications – Bachelor's degree, Master's degree, and Doctorate (see the table below). These study programmes involve lectures and classes, for which attendance is either compulsory or optional, depending on the policies of the university or country (European Commission, n.d.). Students of higher education institutions (HEIs) are perceived as adults, responsible for their own learning and are relatively independent (Foley, 2020).

Academic years usually start between September and October and finish around June. In most of the universities in Europe the students can choose at least some of their modules according to their interests and preferences. Hence, students tend to have varying schedules and learning objectives (European Commission, n.d.). This variability in organisation of the study programmes has also affected the measures taken by HEIs during the COVID-19 pandemic. Moreover, universities often enjoy a greater level of autonomy than schools do. This further contributed to the variety of measures taken by HEIs. Even though it varies from country to country, the national government did not limit the autonomy of universities and some of them even acted differently from the national rules. For example, some HEIs decided to close their facilities and provide only remote education for the whole spring 2020 semester even though the national governments allowed the universities to carry out some face-to-face activities for certain periods of time during the semester (EUA, 2020). The measures have varied

not only across the universities, but also across the departments of the same university and even different disciplines. For example, the study fields that include practical experience, lab work, or external collaboration were more complicated to teach remotely (EUA, 2020a).

Table 9: General characteristics of higher education degrees in Europe

Higher education qualification	Years of study (full-time)	Requirements	Programme organisation
Bachelor's degree	3-4	School qualification	Involves lectures and classes; students assessed through coursework, exams and essays; may involve work-based learning.
Master's degree	1-2	Bachelor's degree or other undergraduate qualification	Involves lectures and classes; students assessed through coursework, exams and essays; may involve work-based learning; may focus on independent research and be concluded with the production of a thesis or dissertation.
Doctorate/PhD	3-4	Bachelor's degree and Master's degree	Involves independent study and research in one specific subject; may include some classes; the aim is to conduct original research and produce new information; the degree is concluded with a thesis.

Source: Compiled by PPMI

2.5.1. Policy responses, challenges, and good practices in the first wave

The cessation of face-to-face activities of higher education institutions across the EU has disrupted their operations. The responses to the pandemic by the higher education (HE) sector in different countries were often not properly coordinated on a national or even institutional level. Instead, faculties or departments often developed their own approaches to remote education. This has caused a high degree of confusion and uncertainty for both staff and students (EUA, 2020a).

While the most important aim of the universities has been to ensure the wellbeing and safety of all staff and students (Coimbra Group, 2020), the crisis has uncovered and magnified many of the challenges that existed in the HE sector prior to the pandemic, such as educational inequalities and the digital gap between students (EUA, 2020a). In addition, the pandemic has posed serious challenges for students, especially those from vulnerable backgrounds or studying abroad. Closures of university campuses affected students living on campuses, whether they were international or national students, and may have caused additional health and safety concerns.

Education provision during the pandemic

During the first wave of the COVID-19 pandemic, most of the universities in Europe closed their facilities in the middle of March 2020 (IAU, 2020). HEIs that used digital technology widely for education before the pandemic, for example in Estonia, switched to distance education rather smoothly (Estonian Ministry of Education, 2020). However, even the universities that used virtual learning tools often struggled to upscale their digital operations, as a lot of them were not designed to be used on such a wide scale (Swedish Ministry of Education, 2020). HEIs that rarely used virtual tools in daily education provision before the crisis faced the most challenges. Some universities have even postponed or suspended their educational activities due to the lack of necessary digital infrastructure (United Nations, 2020b).

Digital tools were available for the majority of universities and lecturers, but they were not always properly integrated in the education system before the pandemic (Hodges, Moore, Barb, Trust, & Bond, 2020). A survey on digitally enhanced learning, conducted by the European University Association

shows that most universities (more than 80 %) had some digital infrastructure and support services for teachers in place and offered lecturers digital training (EUA, 2020b). Yet, even though the virtual tools for teaching were available in most European countries (Gaebel, Kupriyanova, Morais, & Colucci, 2014), for some of the HEIs and their staff using virtual tools for education delivery was an unexplored territory before the COVID-19 pandemic (Recio & Colella, 2020). For example, the findings of the Irish National Digital Experience Survey conducted in December 2019, just before the pandemic, show that 70 % of teaching staff have never taught in an online environment, such as a webinar (National Forum for the Enhancement of Teaching and Learning in Higher Education, 2020). It is unlikely that the situation was any different across Europe.

As a result, online integration was abrupt and often forced. Due to the lack of time to prepare for the shift to distant education in many cases the HEIs were operating in "emergency remote teaching". Such teaching aimed to minimise the disruptions in education provision (Recio & Colella, 2020), but was improvised and not based on appropriate infrastructure and intrinsic values of online pedagogy. Intrinsic values of online pedagogy mean that digital technologies can be used to create distinctive learning environments, increase inclusion, and help improve learning experiences, making them more personalised and better tailored to the needs of individual learners. (Rapanta, Botturi, Goodyear, Guardia, & Koole, 2020). These opportunities that come with online education were often not realised by HEIs. Some universities also used outdated technology and digital platforms (World Bank, 2020c), and some lecturers were often not familiar with more innovative tools (EUA, 2020a).

Professional development, or rather a lack of it, for teaching academics is one of the main reasons why they struggled with distance teaching. The study by the European University Association revealed that university staff often lacked necessary resources and infrastructure, motivation, and support to be able to ensure high quality education provision (EUA, 2020b). Various digital tools for teaching and professional development opportunities for the lecturers were available prior and during the pandemic. However, it was hard for them to decide what resources or support was most useful and needed by them. Motivation to participate in available professional development activities that could help lecturers to improve their distance teaching techniques may also be an important challenge. Staff development schemes are rarely integrated or a systematic part of academic work and there is often little incentive for lecturers in academia to participate in available professional development activities. For many academics, teaching is only one part of their activities, their main focus being research. As a result, they may perceive pedagogical training, including training on digital learning and teaching tools, as unnecessary for their careers (EUA, 2020). However, teaching skills are becoming more and more important for academics, as academic positions combine research activities with teaching (European University Institute, n.d.).

Moving to distance education with limited interaction between students and lecturers also created challenges in ensuring whether the students were continuing their studies or not. The results of a survey conducted by Inside Higher Ed in June 2020, involving 97 university presidents and chancellors showed that ensuring student engagement and student access was very challenging in the first months of the pandemic (Inside Higher Ed & Hanover Research, 2020). For example, lecturers struggled to determine whether the students were following their courses properly. Students also had to find a balance between learning and personal struggles caused by the pandemic (Recio & Colella, 2020).

While the universities struggled with ensuring fluent provision of high-quality education, some good practices were seen during the first wave of the pandemic. Some universities provided professional assistance and professional development programmes to their lecturers, developed learning and teaching centres, and introduced innovative teaching practices. For example, Dublin City University moved some practical activities from laboratories to a virtual environment. The students appreciated

this change and some of the students even improved their learning because of this (Foley, 2020). More good practices are presented in Box 10 below.

Box 10: Examples of good practices in universities in Europe during the first wave

University of Geneva: The University of Geneva organised webinars on distance learning pedagogy and special virtual sessions on distance learning where the teachers can share examples of good practices (Coimbra Group, 2020).

Central European University: The Centre for Teaching and Learning in Central European University is committed to improving teaching and community engagement in knowledge acquisition. The Centre for Teaching and Learning has also actively supported the CEU staff, including teaching assistants and doctoral students, during the university closure. The Centre for Teaching and Learning organised sessions on online teaching and course design. It also developed various supportive resources for university staff, such as an online resource site on Moodle, accessibility guide and guide on online teaching, among others (Central European University, 2020). The online events are taking place during the academic year 2020/2021 as well.

University of Turku: The University of Turku in Finland, has a team of around 20 people in central administration, which is responsible for teaching and learning support for teachers. During the pandemic, this team has played a central role in helping teachers adapt to a new reality (Coimbra Group, 2020).

Latvia: Latvian universities specialising in medical sciences filmed surgeries and other procedures and shared the recordings with students. The students were then able to observe the surgeries and learn from them even without being in an operating room (Latvian Ministry of Education, 2020).

The University of Pavia: The University of Pavia in Italy has created virtual simulators for medical students to do their exercises online (Coimbra Group, 2020).

National University of Ireland, Galway (NUI Galway): NUI Galway has created a short online lesson on effective online learning. This course was created together with a student intern to provide the student perspective. This short online lesson explains what online learning is, introduces the students to the tools and technologies used for online learning in NUI Galway, and provides tips for successful online learning (NUI Galway, n.d.).

Assessments and examination during the first wave

For some universities and disciplines the pandemic did not pose significant challenges in terms of assessment procedures. These universities have been engaging with formative and continued assessment approaches and other alternatives to timed written examinations, such as open books exams, and used digital tools for examination for years prior to the pandemic (Coimbra Group, 2020). However, assessment procedures in most of the universities and fields of studies were still significantly affected by the current crisis. In general, with the constantly changing status quo of the COVID situation, universities had to allow some flexibility when conducting university exams (James, 2020). A global survey by the International Association of Universities showed that around 80 % of higher education institutions in Europe were planning to have exams during the pandemic, and more than half of them were planning to use new approaches to the student examination (Marinoni, van't Land, & Jensen, 2020).

Some universities in France, for example, decided to use all possible forms of continuous assessments (Verillaud, 2020). A lot of universities also conducted their exams using online tools (James, 2020).

Universities often used various remote proctoring platforms during the exams to prevent cheating (Steward, 2020). At the same time, some universities waived or postponed their examinations if that was possible. Others offered deferrals with several possibilities for the students to take an exam (EUA, 2020). Charles University in Prague, for example, automatically extended the maximum period of study for students whose maximum period of study should have expired between the beginning of pandemic and the end of 2020. These students should now complete their studies by the end of 2021 (Coimbra Group, 2020).

Most of the universities changed their assessment procedures to ensure that students are not penalised for study disruptions caused by the pandemic (European Migration Network / OECD, 2020). Measures to ensure that include allowing the students to take an exam more than once and in the records keep a higher grade for the exam, among others. The University Council of Trinity College Dublin, for example, has approved two additional contingency weeks for assessment. It also put in place a mitigation plan that covers various issues related to examinations, such as deferral, permission to retake passed modules, discretionary power for boards of examiners etc. (Coimbra Group, 2020).

The pandemic has also triggered wider discussions about examination processes and their benefits in HEIs, even though various concerns about the assessment processes were circulating in the higher education field well before COVID-19. Specifically, some examination processes have been perceived as unnecessary or not aligned with the teaching and learning outcomes of HE (EUA, 2020). Consequently, the pandemic has been an opportunity to reimagine assessment processes in the higher education sector. For example, there are debates about the need for making the assessments more authentic by, for example, allowing students to take an "open-book" exam or asking them to do more teamwork and presentations (Times Higher Education, 2020).

Ensuring equal access to education

The current crisis also highlighted already existing structural inequalities in several aspects of the socioeconomic, political, and civil fields, education being one of them (OHCHR, 2020). Like most people, many university students have been extremely anxious about the current pandemic and this has negatively affected their productivity, and, in some cases, even their ability to study. However, students from vulnerable backgrounds and those who were already struggling before the pandemic were affected the most. Some students, for instance, lost their jobs due to the crisis and faced a serious financial struggle, having to interrupt their education (EUA, 2020a). This has increased the risk of higher dropout rates.

The digital gap between students has also become more visible during the pandemic and is further exacerbating education inequalities. This divide may refer not only to the differences between those who have access to digital technology and the internet and those who do not, but also between individuals with different levels of digital skills, ability to contribute to knowledge production, and financial resources to optimise their internet use (Du Preez & Le Grange, 2020). The students who were mostly affected by the digital divide and struggled to connect to digital education are those from vulnerable socioeconomic backgrounds (O'Malley, 2020) or marginalised racial and ethnic groups (OHCHR, 2020).

Various affirmative measures that were in place in the universities often did not work during the pandemic as it was very hard to provide them at a distance (EUA, 2020). Nevertheless, there are some good practices. For example, students were provided with guidelines concerning online learning tools and online support meetings were organised for students. To reduce the digital gap, some universities provided grants or loans to enable students to buy a tablet or laptop or provided SIM cards for students who did not have access to the internet. Some universities extended deadlines for the payment of

tuition fees for students experiencing financial hardships, provided exemptions from tuition fees for other students, or created additional financial aid programmes or hardship funding schemes, which were, in some cases, supported by external organisations. Some universities organised additional support systems for students with special needs (Coimbra Group, 2020). Several initiatives have also emerged across Europe to ensure inclusion of students with refugee backgrounds in the higher education system (Malgina & Hovdhaugen, 2020). Specific examples are presented in Box 11 below.

Box 11: Examples of measures implemented during the first wave to support vulnerable students

Spain: The University of Granada offered special grants to students who did not have access to digital technology or an internet connection. The university also set up a loan service for students and staff to be used to purchase computers. SIM cards were given to those in financial difficulty and, as a result, may have disruption in their online connectivity. Moreover, tutors working with students with special educational needs engaged more with students (Coimbra Group, 2020).

Italy: Since May 2020, students whose annual family income is below EUR 20,000 are exempt from paying university fees. The normal family income limit is EUR 13,000 per year. This increase of the income limit for exemption from university fees aims to help more students in precarious situations (Kremo, 2020).

Germany: Due to the pandemic a great number of students were not able to continue working and finance their living costs and studies. In April the "Society for Friends and Patrons of the Friedrich Schiller University Jenna" stated a fundraising campaign for students of the University of Jena, to provide fast and easily accessible assistance to students to allow them to continue their studies regardless of their worsening financial situation. The fundraising campaign managed to collect more than EUR 172,000 and supported 375 students from 50 different nationalities. This fundraising campaign to assist students was created as an interim support mechanism in the emergency situation (Friedrich Schiller Universität Jena, n.d.). The University of Göttingen is also using various funds from its own resources, the student association and fundraising activities to help students, especially international students experiencing financial hardship resulting from the pandemic. The university has provided EUR 17,000 in total (Coimbra Group, 2020). Since June, the German government has been supporting students in financial difficulties due to the pandemic through a special grant and loan programme (Friedrich Schiller Universität Jena, n.d.).

European Qualifications Passport for Refugees project (EQPR): The EQPR project was launched in 2017 by the Council of Europe. The project provides an assessment scheme for countries to assess the qualifications of refugees even if they cannot be properly documented. The assessed individuals are able to continue their studies or look for a job relevant to their qualification. The project involves recognition centres in 11 countries, public authorities and the UNHCR (Council of Europe, n.d.). During the pandemic, a tailored initiative for refugees with health care backgrounds was launched through the framework of the EQPR project. At the beginning of the pandemic, 46 individuals assessed by EQRP project with health field-related qualifications were identified and were able to contribute to the efforts of national authorities in fighting the pandemic (Council of Europe, 2020b).

Immigrant students during the pandemic

The pandemic posed serious consequences for international students, specifically non-EU nationals, as it brought them a lot of uncertainty and confusion. Due to university closures, the student status of international students was in some cases suspended; this, in turn, can jeopardise their visas which

usually depend on their student status. National institutions and universities limited their activities during the pandemic, which often interrupted or postponed visa procedures and university admissions (European Migration Network / OECD, 2020).

International students also faced serious challenges as regards their accommodation. The survey by the Class of 2020 shows that only 40 % of the students, who returned home due to the pandemic, were able to cancel their accommodation contracts (The Class of 2020, 2020). Some of the students who remained in their host countries often struggled to pay rent because they had lost their jobs due to the pandemic and were not eligible for social benefits. Moreover, the universities that closed their campuses often evicted students from their campus accommodation, which resulted in a risk of some students becoming homeless (Nott, 2020).

Additionally, discrimination and racism have increased due to the pandemic, which affected international students as well. For example, an ESN survey on student exchange shows that 19 % of Asian student respondents and 24 % of Italian student respondents experienced discrimination due to their nationalities (Gabriels & Benke-Aberg, 2020).

The international students who decided to return home sometimes faced challenges in accessing remote education delivered by foreign universities. While students residing in European countries are usually able to access online education from universities in other European countries, students who went home to non-European countries, often face challenges in accessing online education from European countries. In some countries, specific licences are needed to deliver online education and not all universities in other countries have these licences. However, as only a small number of students face this issue, universities often overlook this problem (EUA, 2020).

Some Member States and universities implemented various measures to ensure the wellbeing of international students. Some countries extended visas for international students, who were stuck in the EU because of travel restrictions. In some countries, for example, in the Netherlands, the government provided some flexibility to universities to make temporary exceptions regarding the requirements for international students (European Migration Network / OECD, 2020). Moreover, some universities provided their international students with alternative temporary accommodation if they had to move out of the university accommodation (Nott, 2020). Specific examples are presented in Box 12 below.

Box 12: Examples of measures facilitating studies of university international students

Ireland: All residence permits, including residence permits issued for studies, which were to expire between 20 March and 20 July 2020, were automatically extended for an additional two months. The conditions of this extension were the same as the conditions of the original residence permit. The individuals whose permits were extended were required to register in the local registration office once it reopened. Moreover, students who lost their jobs due to the COVID-19 pandemic were able to apply for the COVID-19 Pandemic Unemployment Payment without breaching the conditions of their immigration. Under normal conditions, international students cannot receive public funds (European Migration Network / OECD, 2020).

Czechia: In April, Czechia passed new national legislation in response to the emergency situation that enables higher education institutions to amend their admission procedures for all students: entry exams were taking place online, exam dates were rescheduled, and university admission procedures were changed.[7]

The Netherlands: Higher education institutions in the Netherlands accepted the TOEFL IBT Special Home Edition Test taken online for the purposes of admission and visa applications. Higher education institutions, in line with the flexibility provided by the government, made temporary exceptions to some requirements for international students with the condition that they would be fulfilled within one year. For example, higher education institutions were able to admit students (both Dutch and international students) to Master's programmes without a bachelor's degree; students had an opportunity to conclude their bachelor studies while already enrolled in a Master's programme. Moreover, lower salary criteria for the status of highly skilled migrants were extended for all recent graduates and academic researchers, who stayed in the Netherlands after graduation with a job seeking visa (European Migration Network / OECD, 2020).

Luxembourg: From 18 March the entry of third-country nationals to Luxembourg was restricted due to the COVID-19 pandemic. This restriction applied to international students as well. The study regulations in the University of Luxembourg were changed to make sure that enrolled international students were not penalised due to the partial suspension of their study programme in the summer term of 2019/2020. The university delayed the examination dates from July to the beginning of September and temporarily suspended the maximum duration of studies. These changes applied not only to international students, but domestic students as well (European Migration Network / OECD, 2020).

Germany: In Germany, students from universities where temporary restrictions on teaching were implemented, did not lose their residence permits. In addition, the need for proof of subsistence to receive a residence permit was also waived in certain conditions, such as when students apply for student loans. The student loan programme was also modified, and the loan amounts were increased to EUR 650 per month. This loan is available to all international students until the end of March 2021 and is paid as a zero-interest loan each month (European Migration Network / OECD, 2020).

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[7] 2 Act No. 188/2020 Coll., on Special Rules for Education and Decision-Making at Higher Education Institutions in 2020 and on the Assessment of Study Period for the Purposes of Other Acts, was published in the Collection of Laws on 24 April 2020. The Act responds to the emergency situation in connection with the crisis measures which were adopted by the Government of Czechia due to the COVID-19 pandemic. https://www.msmt.cz/areas-of-work/tertiary-education/the-new-act-no-188-2020-coll-on-special-rulesfor-education-1?lang=2

Financial sustainability of the universities during the pandemic

The global pandemic has posed unprecedented challenges not only for private companies and various organisations across Europe, but also for higher education institutions. For example, early estimations by Eurostat found that the EU GDP fell by 6.4 % over 2020 (Eurostat, 2021). Due to the negative consequences of COVID-19 crisis, public funding is expected to decrease in the upcoming years and the competition for public funding will likely increase. As a result, many universities in Europe will see their funding altered in different ways depending on their funding models. However, decrease in funding is likely to become visible only after a few years (Estermann, Pruvot, Kupriyanova, & Stoyanova, 2020).

Travel restrictions, reduced family income and continued health risks will result in falling international enrolment, at least for the next academic year, and will have a massive impact on university finances and operations, especially for the universities that are highly dependent on tuition fees. With the decreased number of international students and effects of campus closures, higher education institutions are likely to face income deficits and their financial sustainability may be threatened (Recio & Colella, 2020). It is estimated that the potential loss of total income for EU universities caused by the lack of international students, will be 5.2 % of total income (Geulette, 2020).

It is important to bear in mind that contrary to popular belief, universities often have more expenses when providing education online. This is due to increased expenses on digital technology and software, the need for additional support for teaching staff, and other expenses (EUA, 2020). Consequently, lower funding for universities may hinder their daily operations and teaching quality.

Opportunities stemming from the current crisis

Despite the numerous challenges, there were some opportunities for HEIs. The pandemic presented an opportunity to change the way they operate by tailoring their activities towards the needs of the economy and their students and to increase their community engagement.

Firstly, the pandemic provides a great opportunity to advance the digital capacities of higher education systems, which will allow them to be more inclusive and resilient in the future. Most of the universities could examine the lessons learnt from universities that offered distance education on a large scale well before the pandemic. For example, The National Distance Education University in Spain offers distance learning, which combines the use of new technologies, such as virtual learning communities, and print and audiovisual media. The students are able to adapt the learning process to their needs and schedules, and the university offers various forms of assistance to students to ensure that the education is best tailored to them (UNED). The Open University, based in the United Kingdom, also has a student-oriented approach in their distance teaching practices. The university focuses on understanding the needs and goals of their students, offering them a wide range of support measures and flexible schedules (The Open University, n.d.).

Traditional universities should analyse this learner-oriented distance learning approach in more detail and consider possible ways they could implement it themselves. Furthermore, flexible schedules can allow students to combine their studies with their other responsibilities and ensure that students are not penalised for missing classes or not studying when various circumstances, such as a pandemic, prevent them from doing so. However, universities offering distance learning courses also face high levels of dropout rates, which may signal that they also struggle to keep their students engaged (Gregori, Martínez, & Moyano-Fernández, 2018). Hence, their experiences should be considered with caution.

Despite some of the challenges, the higher education sector proved itself able to react quickly to arising difficulties and to continue their educational activities (IAU & ESN, 2020). While the delivery of education in most higher education institutions cannot be sustained in the way it was offered during the first months of the pandemic, this crisis also presented opportunities to reflect on and improve the provision of education. Instead of offering online courses that were pedagogically designed to be carried out face-to-face, universities should aspire to learn from best practices of the first wave on how to integrate digital tools to their operations and create blended courses, that will benefit students (Coimbra Group, 2020).

The current context is also an opportunity for higher education institutions to explore micro-credential programmes in-depth as an approach to follow the labour market. For instance, The Coimbra Group universities have issued a collective outlook on the 2020/2021 academic year where they express support for more flexible and modular programmes and recognition by means of micro-credentials in the light of the current crisis (Coimbra Group, 2020).

The COVID-19 pandemic has also encouraged education providers to adjust their learning environments to provide flexible ways of learning. The EdTech industry has played an important role in this regard. Course enrolments on Massive Open Online Courses (MOOC) platforms have increased significantly. For example, the top three MOOC providers (Coursera, edX, and FutureLearn) registered as many new users in April 2020 as in the whole of 2019. Coursera added the largest number of new learners, receiving 35 million enrolments between mid-March and the end of July (Shah, 2020). Universities across Europe have also responded to this increasing demand for MOOCs and have been offering them more widely since the university closures. Most of the universities that have integrated MOOCs to their teaching during the pandemic had them available before but did not use them as widely.

For example, The University of Naples Federico II in Italy had a pre-existing MOOCs portfolio of 200 curricular courses in various disciplines. During the pandemic, around 100 lecturers from the university have been integrating available MOOCs into their lessons. As a result, educators can focus on clarification of the content, questions from students, and in-depth discussions during videoconferencing rather than focusing on transmission of materials (Kerr, 2020). MOOCs are also offered as an important part of studies in other European universities, including France (Verillaud, 2020), Hungary (Molnár, Námesztovszki, Glušac, Karuović, & Major, 2020), and Poland (Polish Ministry of Higher Education, 2020).

Availability of quality open-access resources is not only an important factor in an effective education response to the COVID-19 crisis but is also a way to bridge the school–university gap and help school-leavers (Kerr, 2020). While this is a great way to ensure quality education during the pandemic, including MOOCs as part of university education on a wider scale should be considered in the future as well, as it could significantly help school-leavers and provide HEIs with the flexibility needed to be more resilient to crises. However, while MOOCs can offer flexibility and personal touch to higher education experience, the studies show that MOOCs often have significantly higher drop-out rates (Rothkrantz, 2016). Hence, inclusion of MOOCs to education practices should be well thought out, as it is crucial to ensure that MOOCs are used complementary to other educational tools, engagement of students is ensured and risk of high drop-out rates is tackled.

In addition to academic activities, the COVID-19 crisis affected the community engagement activities of universities. According to the IAU global survey, almost half of the surveyed universities increased their community engagement activities (Marinoni, van't Land, & Jensen, 2020). More than half of surveyed universities carried out some COVID-19 related community engagement activities, such as

medical interventions, science communication activities, and community actions. For example, the Open Society University Network and the Talloires Network established a joint initiative entitled Communities of Virtual Alliance & Inter-Dependence (COV-AID), demonstrating how civically engaged universities worldwide are responding quickly and positively to the COVID-19 global pandemic.[8]

Examples from Europe, but also the US and Africa include research by universities to find a vaccine, supplying COVID-19 testing machines, providing physical space and facilities to local hospitals for the relocation of patients, or producing more personal protective equipment for medical staff (Jarvis, 2020). For example, an innovative initiative of the University of Namur in Belgium contributed to massive testing efforts in Belgium. At the beginning of the pandemic, when testing capacities in Belgium were not able to meet the needs due to lack of reagents, a virologist from the University of Namur set up an alternative diagnosis technique. Volunteer students and staff from the university then contributed to the organisation and delivery of the testing and scaling up of the initiative (Castiaux, 2020). Furthermore, an ESU reflection paper suggests that medical and health care students, as well as interns, have become increasingly important to the health system, especially public hospitals (ESU, 2020). Increased community engagement can be seen as an opportunity to show the added value of higher education institutions and position them as relevant social actors.

2.5.2.   Policy responses, challenges and good practices in the second wave

As noted by the European Parliament resolution of 22 October 2020 on the future of European education in the context of COVID-19 (European Parliament, 2020a), higher education institutions, in many instances, coped with the effects of the pandemic better than other education institutions due to their resources, experience with digital tools, and already existing digital infrastructure. Higher education students are also more capable of working independently, which facilitates distance education (Swedish Ministry of Education, 2020). Consequently, while early childhood education and compulsory education institutions in most countries operated face-to-face during the second wave, at least until November and December, when the spread of the virus intensified, higher education institutions continued focusing on remote education, even though it varies significantly from country to country.

During the summer it was still not clear whether some universities would open their campuses or not and this led to a lot of uncertainty. Nevertheless, there were some improvements in distance education in HEIs in the second wave and universities made significant efforts to improve the situation for their students and staff (EUA, 2020). Initial challenges for remote teaching and learning have been addressed to some extent, students and staff are developing new skills and learning to be more independent, and students are likely to receive higher quality education than in the first wave (Burke, 2020).

Some universities in Europe resumed face-to-face activities at the beginning of the 2020/21 academic year. However, this resulted in an increased number of COVID-19 cases and, consequently, large-scale quarantine measures in universities (Noack & Farzan, 2020). For example, French universities were eager to open their campuses and resume face-to-face education, mainly to address inequalities exacerbated by the pandemic and ensure that the gap between students from different backgrounds does not increase. However, even though universities followed safety regulations, resuming face-to-face activities resulted in an increase of COVID-19 cases (The Associated Press, 2020). In addition, since students in universities are mobile, visiting their families and friends, this age group has been portrayed as the main spreaders of the virus (Noack & Farzan, 2020). Consequently, universities soon introduced remote or hybrid education provision and expanded their online activities (The Associated Press, 2020).

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[8] For more information, see: https://talloiresnetwork.tufts.edu/osun-tn-partnership/

Full face-to-face teaching in higher education institutions has become the exception rather than the rule. Face-to-face activities tend to be organised only when they are necessary for students. For example, while most of the universities in Italy started the autumn semester remotely, first-year students are given priority for face-to-face activities to facilitate their transition (The Associated Press, 2020). Face-to-face activities in higher education institutions across Europe were suspended once the number of cases of COVID-19 spiked and access to university facilities has been restricted.[9]

As the transmission of COVID-19 in Europe is still widespread, most universities are planning to provide education in the same way it was provided during the autumn semester – either through blended education or fully online education (European Centre for Disease Prevention and Control, 2020). This means that some of the students will have more than a year's experience of online education. While remote education can be very beneficial for students who choose it (Burke, 2020), there is a consensus that the current situation of forced fully online education is not satisfactory (Hughes, 2020).

The protracted remote education is likely to have mental, emotional, and academic impacts on students. Firstly, there is a mismatch between the expectations that students had for their university experience and the reality, which is psychologically difficult for students (Burke, 2020). With the restrictions on the social life of students, the value that students attach to university education is becoming increasingly questionable, especially considering the high tuition fees in some countries, and the fact that a university degree brings less and less return on investment (The European Sting, 2020).

In addition, students and even staff struggle with social isolation and certain challenges from the spring are likely to remain even in 2021. Students in fields that focus on practical hands-on learning are often worried about not achieving their study objectives. Some students are still feeling overwhelmed, struggling to find a space in their homes to work and a way to combine their studies with other responsibilities they may have at home, such as home-schooling their siblings or their own children or taking care of older parents (Burke, 2020). The inequalities between students from different socioeconomic and ethnic backgrounds are still present, and many students are still facing financial struggles due to the pandemic (The European Sting, 2020). Access to education for the most vulnerable, including students from very low-income families, migrants and students with disabilities, is still often denied (Seneviratne, 2020). Furthermore, there is little discussion about the potential threats to security and privacy when using online tools for education. The unresolved security and privacy concerns may hinder the development of online learning and teaching (Vasileious & Crosier, 2020).

Some additional policy measures were implemented to support vulnerable and international students. For example, in Spain students who received the minimum vital income benefits or whose families received such benefits between June and December 2020, have been exempt from paying tuition fees at public higher education institutions for the current academic year. Even students who are not eligible for need-based grants based on their income have been exempt from paying tuition fees. Moreover, in some of the countries where the grants are linked to proof of achieving certain results, such as Germany, Spain, Austria and Sweden, students continued receiving the grant even if they did not acquire the required number of ECTS due to institutional closures, distance learning and reduced teaching (Kremo, 2020). In June the Council of the European Union has also published its recommendation to allow students from third countries to enter the EU (Council of the European Union, 2020). This facilitated the enrolment and studying of international students. However, measures

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[9] As found out during the interviews with the representatives of Education Ministries of several Member States.

that could tackle the potential long-term negative effects of the pandemic are still lacking. The need for better developed digital infrastructure and online pedagogy still remains and more effective measures to address widening inequalities are still missing.

The experiences from the first wave also affected policy planning on the EU level. Firstly, the European Commission has been providing information on available resources and tools for online learning (European Commission, n.d.). The experiences of the pandemic have also affected the Digital Education Action Plan, which calls for stronger cooperation at the European level to learn from the crisis and adapt education and training systems to better fit the digital age (European Commission, 2020c). To strengthen the cooperation and exchange at EU level, the plan proposes that the EU plays a more active role in identifying the good practices, sharing them and scaling them up, supporting Member States and their education sectors with guidance, research and technical expertise, and fostering cooperation between stakeholders. This close cooperation was missing during the first wave of the pandemic and the acknowledgement of the need for it is an improvement. However, the pandemic is still affecting education systems across Europe significantly and even though the need and desire for collaboration is visible, specific actions in this direction are still missing.

2.5.3. Reflections and areas for improvement: capacity to adapt and adequacy and efficiency of measures

The first wave of the COVID-19 pandemic caught HEIs, and indeed most other institutions and sectors, off-guard. Universities often had to act quickly to respond to decisions made by governments without any time to discuss the future steps and consider their impacts. Consequently, a deliberative decision-making process in HEIs was often missing and most of the students and instructors faced somewhat rushed decisions taken by the administration without the possibility of further discussions. It can be argued that the transition for HEIs to remote learning and teaching was somewhat easier than for institutions in other levels of education. Nevertheless, even though many universities already offered online courses prior to the pandemic, moving operations online on a large scale still presented a number of challenges, such as instructors' inadequate digital skills, and institutional weakness that existed before the COVID-19 crisis became even more apparent (EUA, 2020a). The crisis highlighted the digital gap between students from different socioeconomic backgrounds and further increased inequalities in access to education (Coimbra Group, 2020). The HE sector can be considered resilient in that most of the universities managed to continue to provide education. However, the quality of education provided at the beginning of the pandemic was questionable and some of the problems, such as ensuring equal access or addressing the challenges that are specific to the international students, were not considered.

During the second wave, education provision in the higher education sector did not differ significantly from that during the first wave of the pandemic. While most ECEC and compulsory education institutions provided face-to-face education until the situation worsened in November and December, many universities continued with remote education from the beginning of the 2020/2021 academic year and are planning to do so until the end of the academic year (Burke, 2020). Some of the initial challenges, such as lack of knowledge on how to use digital tools, have been addressed and the universities have had more time to plan and properly prepare for remote education this year (EUA, 2020). Consequently, students are likely to get a better-quality education and more clearly thought through online university experience than during the first wave (Burke, 2020). However, the current online education cannot be a long-term solution – student interest and engagement in such a form of education and, consequently, higher education in general, is slowly decaying, and many important challenges that were already visible during the first wave, such as increasing educational inequalities

and unequal access to remote education, still have not been effectively addressed. This threatens to have very serious long-term negative effects on the current generation of students and the longer it is not addressed, the more severe the effects will be and the more likely it is that they are going to be irreversible.

The HE sector should focus on improving the education provision in a way that is more inclusive, more flexible, and more rewarding for the students. The European Commission's Mariya Gabriel stated that it is evident that education has changed due to the pandemic and that the universities should be at the centre of building a healthier, more resilient, and safer Europe (Mitchell, 2020). However, HEIs still need to accept the fact that teaching and learning have changed and probably will not return to "normal" (Seneviratne, 2020), and universities need to become more resilient themselves before contributing to building a more resilient and healthier future Europe. To do that, universities have to consider and implement the new ways of teaching, learning and assessment.

Online education is often perceived as providing worse quality in academic terms compared to face-to-face education, despite research providing contrary results (Hodges, Moore, Barb, Trust, & Bond, 2020). This needs to change going forward. Fully online or blended education is likely to become the norm in the long term and universities should properly prepare for that. They could learn from the experience of the universities that have been providing distance education long before the pandemic, such as the above-mentioned National Distance Education University or Open University. These universities focus on the needs and goals of their students and aim to provide learning flexibility, which most of the universities fail to do. Flexible and learner-oriented education can be resilient to various crises and more inclusive, as it is a great choice for students who need to combine education with family responsibilities or a job. However, it is also important to keep in mind that face-to-face education also has a clear added value, especially considering socialising and possibility to network, and these valuable experiences provided by face-to-face education should also be considered going forward.

With regards to potentially increased reliance on online tools in education, it is of vital importance to address the potential data privacy and security risks and the role of EdTech industry in this new approach to education. As most of the best known available online education platforms are international, their risks could be discussed and addressed at the EU level. This would also facilitate exchange of good practices and knowledge. EU-level cooperation could also facilitate any prospective negotiations with the EdTech industry.

The current higher education system can be seen as a factory process, focusing on Key Performance Indicators, rankings and exams rather than on students and their needs (Seneviratne, 2020). This needs to change if the sector is to become more progressive, resilient, and inclusive. The current situation shows that assessments which focus on subjects rather than competences may be outdated, not in line with the objectives of higher education, and even counter-productive for the progress of the students. Assessments should become more flexible and more authentic, taking the form of continuous assessments or open-book exams (Times Higher Education, 2020). This would be in line with a learner-centred approach to education and could help students develop various competences. Even though such assessments are likely to require more effort from teachers, they would make it harder for students to cheat. Consequently, learning would be based more on the self-motivation of students and the need for surveillance of the students would decrease, restoring some of the lost mutual trust between students and teachers in HEIs.

It is clear that at this point in time, the higher education sector is not that much in emergency mode, but it needs to focus on adapting to this new reality and the necessary fundamental long-term changes (EADTU, 2020). Universities should put make a greater effort to becoming more inclusive and instead

of clinging to their old practices, they should embrace this new reality and their potential future role as a central actor in rebuilding a healthier, safer and more resilient Europe.

2.6. Youth policies and youth work

KEY FINDINGS

- The pandemic has had a range of implications and consequences for youth work and non-formal learning in Europe presenting significant threats to the predominant methodologies of youth work that involve physical proximity, group work and sometimes transnational travel.
- Lockdown, social distancing rules and other public health regulations have rendered many of the traditional contexts and methods of youth work either impossible or impractical.
- The emergence of "digital youth work" over the past decade has enabled youth work to accelerate, extend and diversify their activities. Digital work takes place both as a stand-alone element of youth work practice and in consultation and collaboration with other initiatives that have sought to support young people. Digital youth work allows the youth workers to reach more individuals and brings people closer together when used alone and when used as a part of larger youth work initiative.
- The crisis also revealed the key persisting challenges in the youth work sector (e.g., in terms of recognition, strategy, outreach, funding and available tools) that need to be tackled for it to be able to contribute to re-imagining European education and youth spaces.

Crises like the COVID-19 pandemic can have protracted and severe consequences for younger people, who are already starting to be termed the "lockdown generation" (ILO, 2020a). Recent studies highlighted the multi-dimensional challenge the pandemic posed for young people through the subsequent disruption to education and training, amplified vulnerabilities among young workers, and a longer and more arduous transition into decent work (ILO, 2020b). Impacts such as these exacerbate inequalities and risk reducing the productive potential of an entire generation.

Youth as a public policy field cuts across many different policy areas including employment, education, health, justice, and sports, among many others. National youth policies have emerged as guiding frameworks to shape a vision for youth, to develop youth policies and deliver youth services, including youth work, in a coherent manner across administrative boundaries (OECD, 2020c). Although youth work has greater recognition and visibility today, several structural challenges still persist and these have been further exacerbated by the COVID-19 pandemic.

First, there is no clarity across the EU on what youth work entails, and **many countries do not have formal definitions of youth work**, which further complicates the universal recognition of youth work. There are also traditional disputes about the boundaries of youth work in relation to *age* (i.e. different forms of youth work operate across a broad age range of young people), target groups and issues to be addressed by youth policies. Another challenge relates to education and training for youth work, particularly as most youth work continues to be performed by volunteers, raising questions about quality and professionalism. Relatively little is known about the diversity and delivery of youth work across Europe. This raises questions about outcomes and impact that youth work produces as well as about the quality assurance of youth work and recognition of the skills of youth workers and young people gained through non-formal youth activities (Williamson, 2020).

In addition, there have been persistent structural challenges in the outreach of youth policies and services to all the target groups – such as urban-rural divide, digital divide, socioeconomic divide, and

other forms of inequality (Decent Jobs For Youth, 2020). In the light of these structural challenges, the impact of the COVID-19 crisis on young people, on youth workers, youth organisations, and on youth work practice has been detrimental. The International Labour Organization (ILO) global youth survey finds the impact of the pandemic on young people to disproportionately affect young women, younger youth and youth from low socioeconomic backgrounds (Decent Jobs For Youth, 2020). Although many negative consequences have been well documented, innovation and responsiveness, particularly through digital practice, has provided youth work with an opportunity to contribute to rebuilding Europe in a post-COVID world.

2.6.1.   Policy responses, challenges, and good practices in the first wave

According to the Global youth survey, of the young people who were either studying or combining study and work before the onset of the crisis, three quarters (73 %) experienced school and other educational facilities closures, yet "not all were able to transition into online and distance (non-formal) learning" (Decent Jobs For Youth, 2020). Indeed, COVID-19 left one in eight young people (13 %) without any access to courses or training; a situation particularly acute among youth in lower-income families. This situation also serves to underline the sharp digital divides that exist between regions. Despite the best efforts of schools and youth organisations to provide continuity through online delivery, 65 % of young people reported having learnt less since the pandemic began (Decent Jobs For Youth, 2020).

The pandemic has also affected heavily the employment of young people, undermining their career prospects. According to the survey, one in six young people (17 %) who were employed before the outbreak, stopped working altogether, most notably younger workers aged 18–24. Working hours among employed youth fell by nearly a quarter (i.e. by an average of two hours a day) and two out of five young people (42 %) reported a reduction in their income. Prior to the outbreak, 178 million youth globally were employed in the sectors hit hardest by the crisis, such as accommodation and food services, wholesale and retail trade, manufacturing, real estate and other business activities (ILO, 2020a). Most of the job losses experienced by young people resulted from business ceasing to operate or youth being laid-off.

According to the same survey, government responses aimed at addressing the impacts of the crisis on labour markets (such as income support, company support, learning support) were more likely to reach young people who remained in employment after the onset of the pandemic, leaving already vulnerable young people without necessary assistance (Decent Jobs For Youth, 2020).

Youth participation and (lack of) prioritisation of the needs of young people in COVID-19 mitigation measures

Generally, synergies and collaboration between youth and governments can be considered low during the pandemic. As described by Efuribe, Barre-Hemingway, Vaghefi, & Suleiman (2020), "authorities asked young people and youth organisations to make significant sacrifices during the pandemic without having taken into account their needs and intentions, nor having the possibility that their voice led to governmental actions". Various researchers recognised the double identity of youth during the pandemic both as a target group requiring support, and as a resource for awareness, community-support and innovation (Branquino, Tome, Grothausen, & Gaspar de Matos, 2020). As demonstrated in the following sections, the opportunity to use youth as a resource has not been grasped by governments of many countries.

The pandemic has hindered the work of many youth organisations on advocacy and public assembly. About three quarters of youth organisations felt they were never, or rarely, consulted in decision-

making processes (EYF, 2020).Furthermore, the European Youth Forum found that one in three youth organisations experience difficulties in accessing information from the government; almost a half of them have difficulties expressing themselves because of fear of retribution from the government; and one in ten is not even able to freely use the internet (Lavizzari, Escamilla, Roe, & Petkovic, 2020a).

There were also a few examples of good practices from governments. Some Ministries for youth launched national working groups to coordinate responses to the pandemic. For example, the Norwegian Ministry of Children and Families appointed a national coordination group to assess the services offered to children and young people during the lockdown. In Estonia, the national youth information portal, "Teeviit" (Signpost), provided young people with relevant information and advice related to the pandemic. Similarly, the National Youth Service (Service National de la Jeunesse; SNJ) in Luxembourg launched an awareness-raising campaign on Facebook and the Youth Information Centre (Agence Nationale pour l'Information des Jeunes; ANJI) developed youth-tailored information sheets on COVID-19 (O'Donovan & Zentner, 2020). Unfortunately, the interaction between governments and youth seems to be mostly one-directional, namely through providing information. Youth voices have been included to a limited extent when designing COVID-19 mitigation responses.

Impact on wellbeing and mental health of young people

Severe disruption to learning and working, compounded by the health crisis, has seen a deterioration in young people's mental wellbeing. The ILO's global youth survey found that 17 % of young people are probably affected by anxiety and depression. Young people for whom the pandemic disrupted their work or education are two times more likely to develop depression or anxiety disorders than those whose employment and/or education was not disrupted. Basic needs were an issue too: a fifth of youth (21 %), especially those out of work, struggled to make ends meet (Decent Jobs For Youth, 2020). Similarly, a survey conducted by the European Knowledge Centre on Youth Policy (EKCYP) and the Pool of European Youth Researchers (PEYR) among youth organisations in Europe in September 2020 showed that 79 % of respondents believe youth to be strongly or very strongly affected in terms of their inclusion, participation, wellbeing, and access to rights and services. This applies particularly to at-risk youth (O'Donovan & Zentner, 2020). This has been further confirmed by the interview with youth organisations conducted for this study. Representatives of the European Youth Forum and YMCA Europe emphasised the emotional toll of interrupted non-formal education activities specifically on children from disadvantaged families, which did not have sufficient resources to provide the necessary digital tools for their children (EYF & YMCA Europe, 2021).

The EKCYP/PEYR survey found that, among others, the pandemic affected youth's participation in decision-making, employment situation, access to education, and exclusion. As a result, the researchers of the survey noted a decline in mental health and increase in anxiety among youth (O'Donovan & Zentner, 2020). A crucial concern in this regard is the parallel loss of contact of youth workers with at-risk youth and a drop of engagement of (at-risk) youth which led researchers to conclude that face-to-face contact is crucial for engagement with disadvantaged youth (O'Donovan & Zentner, 2020).

Other research focusing on youth during the COVID-19 crisis also documents the implications and issues facing young people, from anxieties about their occupational futures to more pronounced mental health (Beatfreeks, 2020); (Young Minds, 2020). Day et al. (2020) report that the lockdown was especially challenging for those, who had pre-existing mental health problems and experienced family conflict, especially because the lockdown often exacerbated the issues that these young people faced. Young people also expressed concerns about their peers whom they considered to be at risk of harm while cut off from their support networks (Day et al., 2020). Day et al. (2020) also highlighted problems with access to services during the pandemic and accountability of public officials in ensuring young

people's rights and entitlements. Consequently, young people's rights were not given priority or the necessary attention when COVID-19 mitigation measures were designed (Day, et al., 2020).

Impact on youth workers and NGOs

Youth work often involves community support, especially vulnerable youth. For this reason, youth work can be considered of great importance during the COVID-19 crisis. However, youth work has seen its resources depleted and due to lockdown youth workers had limited possibilities to engage with more vulnerable people. Youth workers were not usually considered to be "essential workers" and had to transfer their activities online (Bohler, Karsten, & Pitschmann, 2020).

A small survey of NGOs delivering youth work in Wales, which elicited 35 organisational responses, drew one particular conclusion from this:

> ".... They were reaching different young people than they would usually see at their centres and projects, which was seen as positive. However, some expressed concern that the most vulnerable children and young people were either uncomfortable to engage online or had *'fallen off the radar completely'*. This has been troubling a number [of the youth work organisations] who have built up relationships, often over years, some felt that *'all that good work is being undone"* (CWVYS, 2020).

Preliminary results of the first RAY study on European youth work in the COVID-19 context also suggest that young people previously involved in youth work offers are not being reached any more. This is clearly of particular concern if more disadvantaged and excluded young people are disproportionately adversely affected (Bohler, Karsten, & Pitschmann, 2020).

Most youth organisations, providing mentoring and non-formal education activities to youth, faced a reduction in financial resources which were cut due to the pandemic. According to the RAY network survey, 46 % of respondents reported that two thirds or more of their youth work had been delayed or interrupted. For 49 % of organisations, this has led to a decrease in their budget – for half of these organisations, the budget has shrunk by 40 % or more. Altogether, 74 % of youth worker and youth leader respondents say their organisations had to close physical spaces temporarily (Bohler, Karsten, & Pitschmann, 2020). Interviews with youth organisations (AFS, YMCA Europe, Scouts) have also expressed concern about the detrimental effect of the pandemic on the existence of youth NGOs, which were reliant on project and mobility funds. In some countries, e.g., Germany and France, the government had provided general support measures to the youth sector or families directly to enable their children to take part in summer non-formal education activities; however, these can hardly still be considered sufficient. According to the interview with AFS, one of the consequences of the financial cuts for the youth sector is the loss of accumulated knowledge and capacity as many trained volunteers and youth professionals had to leave the sector during the pandemic (EYF & YMCA Europe, 2021).

The EKCYP/PEYR survey demonstrated that about 55 % of respondents were "strongly or very strongly" affected by the pandemic in terms of their working hours, working conditions, practices, and digitalisation. In fact, respondents from Austria and the UK mentioned that some municipalities had to lay off their youth workers, and German respondents noticed an exacerbation of "already precarious work in the youth sector" (O'Donovan & Zentner, 2020). Many youth work activities rely on the work of volunteers, the activity of which had also been affected by the crisis. In the Ray survey, 63 % of youth organisations mentioned that some volunteers suspended their engagement temporarily, and 26 % say that some of their volunteers had resigned permanently (Bohler, Karsten, & Pitschmann, 2020). However, EKCYP/PEYR survey respondents from Bulgaria, Estonia, Luxembourg and Malta found no

(major) changes to their work situation. The impact of the pandemic on youth work therefore differed strongly between countries.

Similarly, the impact of COVID-19 on the funding of youth organisations shows a diverse picture across Europe. The EKCYP/PEIR survey found that state funding for youth organisations remained stable and consistent in Bulgaria, Cyprus, Czechia, Luxembourg, Malta and Romania. In contrast, respondents from Austria, Croatia, Norway and the UK provided examples of cuts in funding and resources for youth programmes (O'Donovan & Zentner, 2020). Several examples were found of new initiatives to support youth organisations during COVID-19, as demonstrated in Box 13.

Box 13: Enhanced funding for the youth sector

When NGOs and private providers in Estonia were not able to provide youth service or parents were not able to continue their contributions as a result of the impact of the pandemic, in most cases local governments allocated additional funding.

While there was no national or general lockdown in Sweden during the first wave, the government set aside SEK 100 million in 2020 for civil society organisations' work with children and young people. The Swedish government has introduced support programmes for municipalities, to compensate for the extra costs resulting from the impact of the pandemic.

In Germany, an additional EUR 100 million is being allocated to child and youth education institutions, childcare and youth work services to mitigate the impact of the pandemic. To ensure the liquidity of non-profit organisations, the federal government has also launched a special loan programme amounting to EUR 1 billion.

Source: O'Donovan & Zentner, 2020

Besides the negative impact on NGOs working with youth, youth organisations played a vital role in communication with youth during the lockdowns. Youth information centres (Austria) and the youth voluntary sector (Belgium) actively spread information online on the pandemic and the lockdown measures. Furthermore, Estonian youth organisations posted suggestions for youth on how to re-organise youth-related activities, and how to spend free time during the lockdown (O'Donovan & Zentner, 2020).

Impact on youth work practice

The crisis pushed the youth sector to reflect more on the place of digital and online youth work within its broader repertoire (European Commission, 2018). The RAY survey indicates that most of youth organisations started experimenting with and shaping new work methods in digital environments (Bohler, Karsten, & Pitschmann, 2020). However, this context exacerbates the issue of the digital divide and limited resources of the youth sector to help the most vulnerable, providing key services, guidance, and support in times of crisis (European Youth Forum, 2020). Experts warn that young people with disabilities are particularly struggling to join online activities and the lockdown period is leading to the loss of connections established with some vulnerable groups.

Even though digital youth work presents a lot of potential, there are challenges, such as the digital literacy of youth workers, online privacy and safety concerns, reimagining youth activities as safe social spaces in the online format, that have not yet been systematically addressed (European Commission, 2018). There was no assessment of what kind of support has been provided to the youth sector during the pandemic, and generally limited help seems to have been provided. However, some European umbrella organisations attempted to provide some guidance and tools, as demonstrated in Box 14.

Box 14: Examples of support provided to youth work sector

The European Youth Forum (EYF), as the biggest platform of youth organisations in Europe, has played a significant role in continuing to support youth organisations, reacting quickly to provide information and resources. EYF established spaces for its member organisations to share best practices and promote important initiatives. Under the unifying banner of #SeparatedbutUnited, they used the common platform to share examples of how their member organisations and partners were leading the way in providing critical information, promoting important messages, and supporting their communities. The forum also provided tools, resources, information, and subscriptions to help youth workers operate online and developed an **online events toolkit** (European Youth Forum). Together with the European Commission and the European Youth Foundation specific funding opportunities for youth organisations in relation to the crisis were established.

Source: European Youth Forum, 2020

Overall, the pandemic revealed that the youth sector lacked support from the public sector. A total of 58 % of youth organisations reported that they were not eligible for the programmes set up in their context (Bohler, Karsten, & Pitschmann, 2020). The EU funding programmes were not always considered helpful by youth workers responding to the RAY survey, especially due to the inflexibility of EU funding rules. There is a very strong wish for a different approach in supporting youth work organisations through European funding, and a strong demand to recognise that quality digital youth work needs to be adequately resourced. Youth workers also experience lack of professional support systems (Bohler, Karsten, & Pitschmann, 2020).

2.6.2. Policy responses, challenges, and good practices in the second wave

During the second wave of social distancing measures and lockdowns there seemed to be more awareness of uncertainty and precariousness of youth realities, such as mental health, learning opportunities, employment prospects and social life. In such context, there is strong reliance on youth work to better respond with a relevant and meaningful offer in relation to supporting youth participation, ensuring young people's voices are heard, addressing vulnerabilities exacerbated by the pandemic.

The German Presidency of the Council of the European Union that commenced in July 2020 has set the development of youth work policies and practices through the European Youth Work Agenda as one of the priorities for its presidency (European Youth Work Agenda, n.d.). However, as the interviews with umbrella youth organisations indicate, it does not seem as if much learning is happening in terms of improved national responses to support the youth sector during the second wave. Some respondents even indicated that the youth sector received more financial support and guidance at the beginning; and while governments are debating recovery plans, youth policies are not key priorities (e.g., it is often assumed that all non-formal education activities can continue online, young population is the last to be vaccinated, etc.) (EYF & YMCA Europe, 2021).

The digital space for youth work has certainly accelerated and expanded during the COVID-19 crisis, as other spaces have closed. However, it is important to be aware that digital and online methodologies still remain a supplement not a substitute for the diversity of practice and responsiveness of the youth sector.

Besides the continuing vulnerable position of youth and youth organisations, researchers have also noted a visible increase in best practices over the year 2020, with an increase in youth organisations at

local and national levels who manage to find suitable responses to the pandemic and lockdown. They include, for example, online exhibitions, online daily sports challenges, webinars on how to enrich free time at home and how to have a healthy lifestyle, social media campaigns, keeping young volunteering active by cooperating with local authorities on the delivery of pharmaceuticals, masks, and food to those in need (Lavizzari, Escamilla, Roe, & Petkovic, Briefing 1: An Introduction to Research on the Impact of COVID-19 on the Youth sector, 2020). The following box introduces some innovations in the use of digital tools for youth work.

Box 15: Digitalisation within the youth sector

The training programme Youth + Digital (Jovem + Digital) was launched in October 2020 in Portugal. This programme targets young unemployed people aged 18-35, who are upper secondary or higher education graduates, aiming to improve their digital competences. The Institute of Employment and Professional Training (IEFP) is the body responsible and is also monitoring the roll out.

The strategic objective of the Youth + Digital training programme is to reinforce the quality and effectiveness of professional training and qualifications. Its specific objectives are:

- to align professional training with the real needs of the labour market;
- to improve the professional skills of young adults to foster their employability.

The programme was launched in response to the profound changes in the labour market caused by the digitalisation of the economy and the COVID-19 pandemic. The government is strongly committed to introducing measures and programmes aimed at improving digital competences and promoting employability. They specifically target vulnerable groups such as young adults who are among the most affected by the imbalances generated in the labour market.

Source: Cedefop, 2021b

Key trends in innovation in youth work involve the use of digital technologies. In Malta, for example, all kinds of creative approaches were used during the pandemic, such as Zoom meetings, collective engagement through chats, youth cafés and other types of live session. Through Messenger and Zoom, youth workers have maintained contact with and support for young people and their families. In Lithuania, the HumanAid organisation initiated The STREAM non-formal education activities online for young refugees and raised funds to provide digital devices to students and families in need.

One of the overarching challenges for youth work remains that of **outreach**. The pandemic may have supported the outreach to young people with whom, historically, youth workers struggled to make contact. In this light, the crisis may present a great opportunity for giving voice to young people; for new methods of providing information and enabling choices; for new possibilities of reaching young people whom youth work has classically not managed to reach; and for new ways of building positive and purposeful relationships with young people.

2.6.3. Reflections and areas for improvement: capacity to adapt and adequacy and efficiency of measures

Lockdown, social distancing rules and other public health regulations have rendered many of the traditional contexts and methods of youth work either impossible or impractical. This unforeseen context was challenging for the youth work, but also allowed it to demonstrate its capacity for creativity and flexibility in response and amplified its importance. Lavizzari et al. (2020), summarising findings from surveys, interviews, and studies on the youth sector, warns of a continued, post-lockdown exacerbation of existing inequalities among young people, due to the lack of clear strategies, synergies

and integrated approaches on local, regional and national levels. This applies both to government recognition of "the youth sector" as well as to medium-term strategies of youth organisations themselves. (Lavizzari, Escamilla, Roe, & Petkovic, Meta-analysis of research on the impact of Covid-19 on the youth sector, 2020a).

Due to the devastating effects of the pandemic, many youth projects have been disrupted. Numerous youth work organisations and youth centres were shut down, while youth work is needed more than ever to support young people to face the effects of the pandemic. The social and legal consequences of COVID-19 went beyond health/epidemiology and showcase the importance of communicating measures adequately to young people and including them in the planning and implementation of the measures where possible.

The crisis has also led to more interest in the ideas and methods of non-formal education and learning, to support wellbeing and to tackle anxiety and boredom. The potential of online and digital youth work has already been studied before the pandemic (Kiviniemi & Tuominen, 2017) but its application has been dramatically accelerated in the context of the crisis. It is key to remember however that digital youth work should not be seen as a silver bullet and replacement of the face-to-face youth activities. In this light it is crucial to support further research, peer-learning activities and exchange about the value and benefit of digital and smart work, as well as recognise that quality digital youth work needs adequate financial and human resources. This implies re-considering financial instruments and funds available to youth work sector at the national and EU level, including adaption of EU funding instruments on which youth organisations highly depend.

The crisis also revealed the key persisting challenges in the youth work sector, namely the need to:

- define and recognise the role of youth work across Europe;
- invest in the professional development of youth workers, including their digital literacy;
- enhance the credibility of youth work that should lead to stronger social and political recognition and more reliable and sustainable resourcing of youth work at all levels;
- develop a stronger framework of youth work policy and practice explicitly linking it with other sectors.

The pandemic in this context, calls for a more transformational debate about the place of youth work within the "new normal" that will characterise the post-COVID societies. Youth policymakers should engage in a constructive dialogue with young people and youth workers to create more resilient youth work structures grounded in evidence-informed innovation principles, encompassing long-term thinking, reflexivity and strategy-based youth work (rather than project-based).

3. IMPACT OF THE COVID-19 CRISIS ON EU ANNUAL WORK PROGRAMMES IN THE FIELD OF EDUCATION AND YOUTH

KEY FINDINGS

- Youth sector, without national institutional support, disproportionally depends on EU guidance and funding
- A delicate balance between EU-level coherent strategy and national-level flexibility may be required to assure smooth operation of youth and educational programmes in Member States
- It is important to provide a platform for discussion of sector-specific challenges and struggles with the Commission in order to develop targeted support
- Inclusivity and promotion of digital skills should be a priority area in order to foster resilience and sustainability

3.1. Operation of EU programmes in the context of the pandemic

3.1.1. Overall approach and response of the EU

The EU's education and youth programmes were severely affected by the current pandemic, since a significant number of their projects included aspects of international mobility. Projects that did not have an international aspect also had to adapt to the lockdown measures and change their activities. Yet, there are no plans to suspend the mobility programmes.

The first wave presented unprecedented challenges and complications for the implementation of the EU programmes. There was a tension in balancing "between the necessary degree of consistency across all programme countries and agencies and the imperative need to take country-specific aspects into consideration, such as the different types of Covid-19 measures put in place," as Sophia Eriksson Waterschoot, the Director of Youth, Education and Erasmus+ wrote at the end of April 2020. Consequently, in-country projects were prioritised as they were "easier to manage" (Waterschoot, Regarding Covid-19 impact on youth organisations activities and sustainability, 2020).

DG EAC indicated that they had a clear priority for action during the first weeks of the crisis, namely, to create a clear legal and financial framework for national agencies, project partners and beneficiaries to rely on. As the EU allowed national agencies to utilise the "force majeure" clause, the NAs required a clear structure for the use of project funds under the clause which would simplify administration procedures and prevent auditing complications at a later stage. As the pandemic hit EU countries differently at different moments in time, DG EAC had to hand significant autonomy and flexibility to the NAs to deal with the consequences of COVID-19 in their countries (DG EAC Representatives, 2020). In the case of the French Erasmus+ National Agency, for example, a separate task force responsible for the "force majeure" clause was assembled to make sure that the necessary information and support was provided to the beneficiaries in an efficient manner (French National Agency, 2020).

Collaboration, communication, and exchange of information were the subsequent key priorities. The Commission has been in close contact with the Education and Culture Committee in the European Parliament, as well as the Erasmus+ National Agencies (NAs) and the programme stakeholders, in order to ensure a continuous implementation of the programmes, as well as develop new strategies to

mitigate the challenges and contribute to the sustainability of these invaluable activities (JRC, 2020). Diverse platforms were used by the EU to communicate with national agencies as well as national authorities. To ensure legal certainty, DG EAC collected information requests and questions from NA's, discussed the response internally with various layers of validation by different units, and communicated the reply to all NA's as official guidance to rely on (DG EAC Representatives, 2020).

The second wave of the pandemic was characterised by intensifying efforts of adaptation and more proactivity in assuring the operation of EU-level youth and educational programmes, while prioritising the safety and protection of participants. The work of the Commission was characterised by the publication of extraordinary calls to support digital education, cultural activities, and adjustments to online programmes, as well as an effort to assess the effects of the pandemic, with the aim of developing efficient programmes that will prove resilient and sustainable in the future. To that end, the European Commission conducted two surveys to evaluate the effects of COVID-19 on mobility participants and higher education institutions; in addition, the Education, Audiovisual and Culture Executive Agency (EACEA) carried out a survey among Erasmus Mundus projects to highlight coping mechanisms of students during the COVID-19 pandemic (European Commission, n.d.).

Little changed during the second wave regarding the overall priorities and approach of the EU in its collaboration with NAs. The different realities across the EU still required a highly flexible approach with significant independence for national agencies under the force majeure clause. DG EAC continued its role in creating legal and financial certainty by continuously updating NA's and authorities on developments, new guidelines and answered questions (DG EAC Representatives, 2020).

3.1.2. Erasmus+ programmes

The coronavirus pandemic undoubtedly had serious implications for student and youth mobility projects under **Erasmus+ Key Action 1 (KA1)**, when COVID-19 stunned mobility through border closures, lockdown measures, travel bans and restrictions on gatherings. In addition to the mobility aspect, many students were worried how interruptions would affect recognition of their participation in a mobility programme altogether. For instance, exchange students "worried about not making their grades or losing money or feared that their study period abroad will not be recognized" (Strauss, 2020). There was a clear goal to maintain the professional and educational component of mobility programmes, although in some instances it had to be placed on an online platform.

During the first wave, although as the Erasmus Student Network claimed, "the real 'Erasmus experience' is unlikely to be the same", their report issued in April 2020 revealed that among students still in the phase of mobility,

"Close to 65 % of the students reported that their mobility continued [with or without restrictions]…. For 25 % of the respondents, the mobility was cancelled… 5 % of respondents were unsure what was going to happen and the remaining…indicated another impact on their mobility experience." (European Commission, 2020d)

The survey of Erasmus+ and Solidarity Corps participants conducted by the European Commission showed somewhat more pessimistic numbers, suggesting that "approximately 25 % of the surveyed participants were not (or were only mildly) affected by the situation" and for "the remaining 75 % of the surveyed participants…activities were affected by the pandemic" (European Commission, 2020d). Of the 75 % affected,

"42 % of respondents continued their activities with different arrangements (i.e., distance or online learning) with variations between the sectors; … for 22 % of respondents, the activity was temporarily suspended; for 36 % of respondents the activity was definitely cancelled." (European Commission, 2020d).

The EU's priority to provide flexibility was also reflected in the Erasmus+ mobility programme. In most cases, participants of the mobility activities and exchange programmes were able to decide whether they wanted to return to their home country or remain in the host country, and responsible organisations were able to use the funds that were allocated for the project to cover the costs of travelling. This approach – to give autonomy and flexibility to NAs and institutions, rather than impose an all-embracing strategy – was confirmed through various communications:

"Considering the COVID-19 situation, the EC provides NAs with support to address the different issues and scenarios taking place on the ground. The EC wants to give a flexible framework with enough 'marge de manoeuvre' for both NAs and higher education institutions (HEI). The EC does not want to come up with descriptive rules in order to allow solutions tailor-made to the individual needs of the students." (ESU, 2020)

Some of the measures introducing flexibility were the following (EUA, 2020c):

- application deadlines for Erasmus+ extended;
- European Commission applied maximum flexibility in the implementation of the Erasmus+ programme within the limits of the legal framework;
- additional costs due to the special situation of mobile students and staff were covered.

In addition, Commissioner Gabriel pledged to reimburse all exceptional costs to youth participating in educational or volunteer programmes abroad that were incurred due to the crisis (European Parliament, 2020b). Sophia Eriksson Waterschoot issued "The European Commission's response to COVID-19 challenges on student mobility", which presented efforts of coordination at the EU level, primarily through enhanced collaboration (e.g., conferences, meetings and webinars), support to students and youth, development of digital repositories, and access to additional funding (Waterschoot, The European Commission's response to COVID-19 challenges on student mobility, 2020). This approach focused on facilitation, coordination and, importantly, gaining a better understanding of the pandemic and its consequences on mobility, in order to proficiently revise the current mobility programmes. In turn, initiatives, such as the Commission's "Re-open EU" web-platform were aimed at providing accurate and constantly revised information in order to support a "safe re-launch of travelling… in Europe" (European Commission, 2021).

However, many observers commented on a decrease in interest towards mobility programmes primarily due to uncertainties, although official statistics are not yet available. Erasmus students, for example, were able to enrol in September 2020 with no guarantees to travel; some universities did not invite them to their campuses and only offered online classes, while other universities engaged in "**blended mobility**", "which will allow students to learn remotely, with a chance to go abroad if and when circumstances allow" (Naujokaitytė, 2020). The European Commission issued its own guidelines on virtual mobility, according to which

"It is possible to start mobility periods virtually in the autumn if starting the mobility period physically in a host country is not possible due to exceptional circumstances. However, it is obligatory to complete a part of the mobility period in the host country when the circumstances allow for it; it is not possible to award grants for solely virtual exchanges. Only in the case where a planned mobility period cannot, after all, take place due to changed COVID-19 circumstances, is an entirely virtual mobility period acceptable. The learning occurred during the whole mobility period (virtual and physical) will be recognised. However, a grant can be awarded only for the part of the mobility period that takes place in the destination country." (Finnish National Agency for Education, 2020)

Considering the flexibility and autonomy given to institutions, there are also successful examples where extra security and hygienic measures were implemented in order to cultivate such conditions that would allow for safe international mobility programmes to take place (see Box 16).

Box 16: Good practice in VET mobility under Erasmus+

Asociación Mundus in Zaragoza, Spain successfully resumed its reception of students under Erasmus+ KA1 in the autumn of 2020. There are strict security measures and new protocols in place, in order to guarantee safe conditions for all participating parties. What Asociación Mundus call a "new normality of international mobility" involves the following measures:

- Students take a COVID test in their countries one week before coming.
- Students and teachers are tested upon arrival in Zaragoza before going to the companies.
- A session on COVID-19 measures, prevention and "what to do if…?" have been included in the programme.
- Specific protocols have been created and implemented.
- Remote temperature measurement device has been installed.
- Trainers and companions wear shields and masks when working with participants.
- Cultural activities and joint sessions have been adapted to the situation (masks, social distance, open spaces, limited social gathering).
- Companies are informed about the mobility protocols and adapted their own ones.
- Students receive kits with Individual Protection Equipment.
- Hygienic measures: encouraging regular handwashing, use of masks, and maintaining social distancing.

Overall, these measures are broadly focused on testing, safety, and providing information, which has amounted to a comprehensive approach aimed at creating a protected environment for international mobility programmes to take place. With these measures in place, Asociación Mundus considered hosting students and teachers to be safe and resumed their mobility programme without sacrificing any of its pillars – travelling, learning and experiencing different cultures.

Source: Asociación Mundus, 2020.

In comparison, the operation of **transnational projects funded under Erasmus+ KA2 and KA3**, was less drastically affected by the COVID-19 mitigation measures than youth mobility and volunteering activities. This was due to the longer-term nature of the strategic partnerships, which allowed partner organisations some flexibility to adjust the project timelines and move meetings online, including occasional meetings and multiplier events. The primary challenge has been that partner organisations which projects have been working with, have been closed under COVID lockdown. Overall, most of the project activities under KA2 and KA3 were either transferred into online format or postponed (e.g., in the case of planned field work or peer-learning activities) (DG EAC Representatives, 2020).

To support the online and blended learning trend during COVID-19 and to support the exchange of ideas and good practices on COVID-19 and education, DG EAC launched two additional calls for projects (a call for digital education readiness and a call for 'partnerships for creativity'), for which many applications were received by the NAs. This shows that despite the pandemic and lockdown, Erasmus+ projects are still popular and considered feasible by the organisations involved (DG EAC Representatives, 2020).

3.1.3. European Solidarity Corps

The work of the European Solidarity Corps was similarly affected both in terms of international mobility and in terms of continuation of national projects. According to several interviewed representatives of

the national agencies, multiple ongoing activities and projects had to be considerably adjusted or even suspended. Organisations hope to resume postponed activities when the situation improves, in order to continue their activities conventionally.

The force majeure clause enabled NAs to provide volunteers with various options: to stay in their host country, leave the programme, or continue activities remotely—these decisions often depended on the organisation and the nature of the volunteering activities (Portuguese, Belgian, and German National Agencies, 2020). In all cases where the project continued, the hosting organisations assumed responsibility for the wellbeing and safety of volunteers. After the first wave of the pandemic, when travel restrictions in most countries were relaxed, some of the volunteers were able to travel again and (re-)start their mobility activities (Belgian and Romanian national agencies, 2020).

Fully virtual mobility projects were not popular for three reasons:

- First, virtual mobility projects were not encouraged by the national agencies and the Commission at the beginning of the pandemic (Belgian and German National Agencies, 2020).
- Second, the funding available for the fully virtual projects is significantly lower than the funding for traditional mobility projects (Belgian National Agency, 2020).
- Third, out of consideration that mobility activities bring considerable benefits and cannot be replaced by fully virtual mobility programmes (French National Agency, 2020).

Consequently, organisations were more likely to postpone their activities and extend the duration of the projects, rather than move them fully online, which at times resulted in missed opportunities (Belgian National Agency, 2020). Almost no projects were completely cancelled, as this would have resulted in the organisations being forced to return the funding on which they significantly depend (German National Agency, 2020). In many cases, organisations introduced **blended mobility**, allowing volunteers to start their activities remotely and travel to the host country once it is allowed by the national authorities. However, this option did not live up to expectations, mainly because organisations were not able to guarantee that at least some of the activities would take place in a foreign country, which is a condition of blended mobility activities (Belgian National Agency, 2020).

However, projects may be cancelled if restrictions due to the pandemic last longer and cannot start once the postponement period is passed (Belgian National Agency, 2020). Meanwhile, NAs recognising the value of online collaboration and the importance of assuring their activities are maintained, carried out their face-to-face events virtually: training for beneficiaries before the projects, evaluation sessions, and instructions for the ESC volunteers. Due to the efficiency of these virtual activities, NAs are considering similar virtual interactions in the post-pandemic future (French National Agency, 2020).

The challenges induced by the pandemic also allowed for some creative strategies to emerge, leading to good practices. DG EAC representatives indicated that they also noted strong willingness and eagerness among ESC volunteers to help the communities that hosted them. Many ESC volunteers were able to adjust their activities and, with EU support, provide direct support to their community in the battle against COVID-19. For example, volunteers helped the elderly with groceries, they produced masks, and organised activities for children of essential staff. In this regard, DG EAC emphasises the resilience demonstrated by youth across Europe in the face of adversity (DG EAC Representatives, 2020).

However, it is also important to consider that in many countries this sector is not institutionalised and hence particularly vulnerable to changes and challenges. For example, the budgets of many youth organisations have decreased due to the pandemic which hinders their sustainability (Bohler, Karsten, & Pitschmann, 2020). While the European Solidarity Corps is likely to endure as long as there is funding

from the EU, a large number of organisations participating in the programme may not be able to survive the pandemic due to lack of funding and restrictions on their activities, especially if the pandemic continues. In addition, unlike the formal education sector, the youth sector organisations have less institutional support. DG EAC representatives consider that they did what was possible to support the youth programmes during the pandemic, but that significant work needs to be carried out by and with national authorities to strengthen the youth sector and allocate funding to it.

Without institutional support, the youth sector is often overlooked by the public institutions. This was especially evident considering the travel restrictions and their exemptions for third-country nationals: third-country nationals were not allowed to enter the EU due to the COVID-19 crisis, yet international students were exempted from this restriction and could enter the EU for study purposes, while young volunteers or participants of non-formal education activities were not allowed to do so. This significantly hindered the work of youth organisations that focus on working with third-country nationals. Moreover, at the beginning of the pandemic the European Commission urgently organised meetings for national agencies responsible for formal education programmes and youth sector programmes. The meeting for NAs working with only the youth sector was only organised after a few months, which prevented NAs from sharing their field-specific challenges and struggles with the Commission in order to develop targeted support (Belgian National Agency, 2020).

3.2. Adequacy and coherence of the measures implemented at the EU level and by national agencies

3.2.1. Overall adequacy and coherence of EU-level measures

While the initial response of the EU took rather long, it can be argued that the EU made the right decision to prioritise a strong legal and financial framework for all stakeholders of EU education and youth programmes. Some communication from the Commission was overdue at the beginning of the pandemic, which may be a result of the lengthy bureaucratic procedures necessary to take decisions given the top-down centralised approach of the Commission (German and Belgian national agencies, 2020). In fact, the rigid bureaucratic structures were already noted in the earlier evaluation of EACEA 2015-2017 (PPMI Group, 2017).

> *"Some concerns were raised during interviews with the Commission and the EACEA that the current legal framework is quite burdensome and inflexible. In some instances, it was argued, this limited the flexibility of both the Commission and the EACEA to respond to any unforeseen events. For example, the introduction of even minor changes to the mandate of the Agency creates a lengthy legal process."*

The interviewed DG EAC representatives acknowledged the slow start, but also indicated that the establishment of a holistic legal and financial framework in an ad hoc emergency situation like this must take some time. The creation of a solid framework for certainty was prioritised over a fast response that may have required adjustments later on and could therefore cause confusion (DG EAC Representatives, 2020).

Due to the framework and the force majeure clause, the national agencies were aware of their responsibilities and freedom to make decisions, which ensured high flexibility to adjust COVID-19 response measures to the circumstances of individual countries. Considering the differences between countries in their COVID-19 responses and impact, it can be argued that a different, stronger response of the EU could not have taken place or would not be adequate considering the needs of the NAs and beneficiaries.

Interviewed National Agencies claimed that the increased communication was rather helpful in supporting the continuity of the programmes. In turn, the NAs also organised their own meetings, which allowed them to share their experiences and best practices as well as discuss their challenges and prepare for their meetings with the Commission.

The flexibility and legal certainty priorities were reflected throughout the period of the pandemic, across the education and youth programmes. For all programmes (Erasmus+ mobility, Erasmus+ projects and the EU Solidarity Corps) National Agencies were allowed to use the force majeure clause, rely on the legal and financial framework, and address challenges caused by lockdown as needed in the national context. The EU continued to update guidelines and frameworks based on questions of national agencies to expand the response framework for action. As a result, the EU response was coherent across its education and youth programmes and for the duration of the pandemic.

While all these measures were a "good start", as the CESAER network commended the special measures of the European Commission in an open letter, undoubtedly long-term and "continued efforts and support will be needed to address some remaining issues and uncertainties" (CESAER Network, 2020). Despite the pandemic, national agencies were able to resume their work programmes and during the autumn cycle of applications, there was robust interest in their activities, indicating continual interest among the youth. These youth and educational programmes indeed remain the cornerstone of the EU's youth policy and are instrumental in boosting young people's resilience and multicultural perspectives.

3.2.2. Erasmus+ programmes

After the first wave of the pandemic in the spring of 2020 and the ensuing interruptions in the operations of EU youth and mobility programmes, it soon became clear that some of the impacts would be long lasting. As a result, the approach the European Commission adopted was characterised by providing **flexible solutions** and offering accurate information to stakeholders and beneficiaries of mobility programmes. In other words, hosting institutions and organisations were asked to accommodate students and youth through various pragmatic solutions as well as relying on the "force majeure" clause.

In the case of the Erasmus+ mobility programmes, the EU and NAs faced not only different national COVID-19 contexts, but also the autonomy and therefore individual approaches of education institutions. Therefore, this programme required a high level of flexibility during COVID-19 to ensure the beneficiaries received the necessary support as it related to their host country and host institution. The autonomy granted to the national agencies under force majeure was adequate as NAs have a better overview of, and direct connection with, the education institutions involved. Therefore, they are best placed to support Erasmus+ students. In this sense, the EU response for Erasmus+ mobility can be considered adequate.

While there is still no well-defined and comprehensive strategy to reform mobility programmes given the pandemic-induced challenges, it is also clear that there is a persistent search for effective measures. The Commission is investing in digital resources and creativity (Naujokaitytė, 2020) – two areas that should spark ideas and solutions to not only mitigate the crisis, but successfully develop mobility programmes so that even during times of crises, they continue adhering to the original principles of "acquiring competences and grow as individuals… fostering active participation in society… offering participants the opportunity to identify common values with persons from different countries in spite of their cultural differences" (European Commission, n.d.) and promoting "transnational and cross-border cooperation" (PES Group, 2020).

The Erasmus+ KA2 and KA3 projects were also subject to the flexibility of the force majeure clause. The postponement of project activities and facilitation of virtual project meetings was an adequate response to ensure that neither the objectives of the projects nor their funding were lost (DG EAC Representatives, 2020).

3.2.3.   European Solidarity Corps

In general, the European Solidarity Corps was rather vulnerable to the effects of the COVID-19 pandemic, despite the force majeure clause and the newly introduced virtual tools, which helped maintain some activities, while others had to be suspended or postponed (usually for up to 12 months, not exceeding 36 months for the whole project duration). The RAY survey of youth workers and youth leaders showed that for 70 % of the respondents, their work was affected by the COVID-19 crisis (Bohler, Karsten, & Pitschmann, 2020).

National agencies were able to make decisions in a timely manner, based on their best judgement and considering the safety and interests of participants. The implementation of force majeure was decided by assessing the projects and activities on an individual basis. During the pandemic, efforts to communicate, provide information and continuously update all parties involved was one of the key measures taken by the Commission and national agencies as well.

DG EAC representatives indicated that from surveys they conducted, the youth organisations lacked skills, tools and equipment to carry out activities online. Additionally, the pandemic disrupted their outreach to youth, who used to come into their centres (DG EAC Representatives, 2020). In this line, it can be argued that the ESC hosting organisations may need additional support rather than an extension of projects or introduction of blended activities. The youth programme of the EU was affected more significantly than the education programmes due to the existing gaps in youth policies across Europe. The flexibility that the EU offered in line with the force majeure clause may have been less adequate or insufficient for the ESC programme to capture all challenges faced by the stakeholders. As the challenges regarding the ESC programme are mainly related to the lack of youth policies on the national level rather than the lack of adequate responses by the EU, the EU should closely cooperate with national authorities to account for the gaps in the ESC programme during COVID-19.

3.3.   Future planning: Considerations for the modernisation and improvement of EU education programmes

There is an undeniable need to modernise and improve EU education and youth programmes to assure their resilience and sustainability in the future. To that end, and to support Member States in crisis recovery plans, the Commission reached an agreement to build a "greener, more digital and more resilient Europe" (European Commission, 2020), which will reinforce Erasmus+, among other programmes. According to plans, the new Erasmus+ programme will be more inclusive, innovative, digital and green (European Commission, 2020e). Vice-President Margaritis Schinas, responsible for Promoting our European Way of Life, commented:

"Erasmus is Europe's most emblematic programme, the jewel in our crown. The Erasmus generations represent the essence of our European Way of Life. Unity in diversity, solidarity, mobility, support for Europe as an area of peace, freedom and opportunities. With today's agreement, we are ready for the next and bigger Erasmus generations." (European Commission, 2020e).

This agreement to launch a new "green and digital Erasmus" programme was also welcomed by the Erasmus Student Network (ESN), whose president, Kostis Giannidis commented:

"From 2021, a new programme with a new budget will start…[It will be] more digital, more inclusive, more environmentally sustainable, and the European Commission is aiming to make the programme more international". (Naujokaitytė, 2020).

Indeed, the budget for Erasmus+ has been significantly increased, demonstrating the commitment to implement long-lasting changes and offering an opportunity to more students (PES Group, 2020); it was recently announced that the funding is to be increased by EUR 26 billion between 2021 and 2027, and the expected number of participants tripled to 12 million people (DW, 2020). Some of the additional changes will include:

- incentives for students choosing to travel by train or bus;
- the simplification and digitisation of application procedures;
- higher participation targets for non-EU countries;
- 'Blended mobility';
- a tender for updating the Erasmus+ mobile app to include the ability to apply for Erasmus+ programmes from a smartphone.

In an open letter from the CESAER network, an organisation representing the universities of science and technology in Europe, project partners expressed their hopes and expectations of the Commission regarding the future of Erasmus + KA2 and KA3 programmes (CESAER Network, 2020):

- *"Continue the dialogue with national agencies, universities and other relevant stakeholders to ensure that the remaining challenges are identified in time and successfully tackled;*
- *Ensure that the guidance and instructions provided to national agencies and beneficiaries are explicit, effectively communicated and consistently implemented, leaving no room for different interpretations and varying practices throughout participating countries;*
- *Remain sensitive to the lack of national institutional support that some organisations might face and hence their reliance on EU support for continuous operations;*
- *Apply maximum flexibility and ensure that the beneficiaries do not suffer any cuts in funding or financial losses related to unimplemented project activities, extensions of projects and extra staff costs;*
- *Provide additional funding through a lump sum to cover extra staff costs and other costs that may occur due to the project extensions under Key Action 2."*

DG EAC expects that certain virtual elements of the Erasmus+ KA2 and KA3 programmes will remain in place. Representatives of DG EAC are reviewing the best options for a legislative framework for these programmes which incorporate certain blended elements (DG EAC Representatives, 2020).

In this line, the DG EAC representatives did mention that, to some extent, the Erasmus+ mobility programme will continue, as much as possible, in its original form. While more aspects of blended learning will be explored, one of the key values of the programme lies in the mobility dimension and the integration into a new country. Therefore, respondents believe that the programme will not include fully virtual mobility aspects (unless a pandemic or other crisis so requires) (DG EAC Representatives, 2020).

The pandemic also highlighted the importance of strengthening the youth sector. According to DG EAC, there are two main policy documents that need to be focused on in the upcoming years:

- Firstly, the *Digital Education Action Plan* needs to be reinforced to cover non-formal education activities, to build the competences of youth and youth work
- Secondly, the *European Youth Work Agenda* needs to be further developed to support quality youth work, including digital youth work.

The post-COVID-19 reality of EU education and youth programmes will be characterised by continued collaboration, such as twinning projects, networks of teachers, etc. DG EAC is already working closely with Member States through a distance learning group to exchange experiences and with ESN to better understand the experiences of beneficiaries. Through collaboration with education institutions, DG EAC plans to conduct extensive research on the impact of COVID-19 on its education programmes and how to work towards a post-COVID-19 setting (DG EAC Representatives, 2020).

Based on the experience acquired until now, future planning of resilient EU-wide mobility programmes must include the following elements:

1. **Inclusivity**: according to observers, the pandemic has already hit disadvantaged youth harder (OECD, 2020), which in turn further debilitated their ability to participate in mobility programmes. In an interview, a Commission representative admitted that "We have to do more on inclusion. One way to do that is to use more creative and cultural activities to bring students back to learning" (Naujokaitytė, 2020).

2. Careful consideration of **commitment to international programmes and mobility aspects** – youth and student exchange programmes may need to be reconsidered with the possibility of limited or no travelling options.

3. Investment in **reducing the digital divide**; considering that many exchange programmes were also switched to remote learning, addressing the digital divide is ever more critical. Vanessa Debiais-Sainton, Head of Higher Education Unit at DG EAC assured of the importance to address the digital divide and to that end, "to invest through the Erasmus programme in the training of teachers and lecturers to ensure high quality of digital learning" (ESN, 2020).

A key final remark in this regard, as made by DG EAC representatives, is that the digital dimension foreseen in the Digital Education Action Plan and as introduced during the pandemic should be further developed in terms of its **substance** rather than as **mobility**. The digital transformation of education and related digital skills are of crucial importance in the upcoming years but will not serve as a tool to replace traditional mobility (DG EAC Representatives, 2020). Recent research on virtual mobilities has demonstrated that digital technologies have great potential and create interesting opportunities for student mobility, such as the development of different transversal skills. However, there are still clear limitations to virtual mobility as it relates to intercultural immersion, technical logistics and a variety of skills that come from the process of moving abroad and settling in a new environment. Therefore, at this stage, virtual mobility is not (yet) developed enough to provide the same benefits as physical mobility (Buiskool & Hudepohl, 2020).

4. TOWARDS MORE RESILIENT EDUCATION AND YOUTH SYSTEMS: CONCLUSIONS AND RECOMMENDATIONS

The COVID-19 crisis should be seen as an opportunity for collective action to ensure a resilient education system. Educational planning for crises necessitates creative solutions and problem-solving techniques to deliver education in unexpected circumstances. After the initial shock of the first COVID-19 wave, during which quick institutional response was the main imperative, the lessons drawn must be aimed at building sustainable and modern education systems that can maintain continuity of instruction and cater for students and youth during times of crisis, with few or no drawbacks. In other words, having moved on from the early phase, when "the primary objective… is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis" (Hodges, Moore, Barb, Trust, & Bond, 2020), the current need to re-think our institutions gives rise to the question of what constitutes resilient education and youth systems.

A resilient education system is able to adapt and transform itself in the face of adversity. Resilience can be built through risk-based approaches that focus on preparedness (involving scenarios and disaster management plans) as well as through uncertainty-based approaches, which focus on capacities. In either case, the ability of an education system to transform itself during and after major crises, and not to return to the original status quo, is crucial to its overall readiness to absorb and recover from crises such as the COVID-19 pandemic. Learning, then, becomes an important aspect of resilience, so that adaptation can draw on lessons and models applied by other countries and regions. It is therefore imperative to employ a data-driven approach to inform the transformation of the education and youth sectors. This approach should be based on careful assessment of the impact of the current crisis, modelling and predicting future developments and crises to inform the operational and strategic decisions of policymakers.

Within the current study, a first assessment of resilience was made of both the education systems of EU Member States, and of EU education and youth programmes. This assessment was based on a review of how second-wave COVID-19 mitigation measures between October 2020 and January 2021 took into consideration the challenges and opportunities brought about by the first wave of COVID between March and May 2020. The extent to which the challenges of the first wave were addressed through innovation in policies and in education, as well as through better teacher preparedness, support and the like, could suggest whether education systems have a transformative capacity and are able to further improve. To that end, the subsequent sections present key conclusions of this review as well as policy recommendations, while also hypothesising as to the nature of future resilient education and youth systems.

4.1. Resilience of national education systems: learning from the crisis and moving forward

4.1.1. Collaborative decision making during crises

Each level and dimension of education, from ECEC to higher education, has been affected differently by COVID-19 mitigation measures. These effects depend on the extent to which lessons necessitated face-to-face teaching, the developmental stage of the children involved, the curriculum and its flexibility, and the autonomy of the education institutions concerned. However, certain elements were identified across the education system as a whole that provide a more general indication of its resilience.

First, it is important to note that no EU Member State has employed a risk-based educational approach to the COVID-19 pandemic, as no such disaster or adversity mitigation strategies were in place. Countries were not prepared for the crisis, fuelled by a pandemic, that could hinder traditional, face-to-face education. As a result, all policy measures and education continuity approaches were designed and set in motion on the basis of the existing capacities of stakeholders and the structures in place – a tactic known as an uncertainty-based approach. The COVID-19 pandemic triggered initiatives across Europe to develop emergency education plans that would ensure better preparation for future crises.

Second, decision making was rarely collaborative, and many of the experts interviewed complained either of entire institutions not being consulted, or of a sole focus on medicine and hygiene being prioritised during decision-making processes. The International Step by Step Association described it most succinctly as:

> *"now parts are working in isolation – some might survive, and others don't. But the whole system must be kept afloat. Health was the driving rationale, which is fine up to a limit, but the decisions that were made had serious consequences for a lot of sectors, including education [and youth]. More discussions were needed between different groups and stakeholders. A resilient system is one that works together."*

For this, a **consulting mechanism** may need to be put in place. In addition, competences must be developed that will enable: 1) rapid assessment of the situation; 2) rapid outreach to and consultation with stakeholders and 3) rapid decision-making. Consulting mechanisms can draw heavily on experts in the field of crisis management, online education and related areas of expertise, as well as bottom-up regional and local initiatives. More importantly, these mechanisms should make use of education evaluation and assessment, as well as crisis management data. Both waves of the pandemic have shown that *ad hoc* solutions, creative approaches and spontaneous endeavours that were sensitive to particular local needs, constraints and contexts emerged almost immediately and, often through trial and error, led to favourable results. For instance, teachers' networks – some well organised and established, such as eTwinning and Scientix, others *ad hoc* and impromptu, organised through social media such as Facebook and Twitter – offered valuable support to teachers across Europe. In addition, many national subject-based teaching associations responded and reached out to teachers both across their respective countries as well as internationally through their networks and communities.[10] Fostering cooperation between different stakeholders and supporting cross-sectoral collaboration are also key priorities of the new Digital Education Action Plan 2021–2027[11].

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[10] See, for example, the work of the UK Geographical Association: https://www.geography.org.uk/Geography-from-home
[11] Digital Education Action Plan 2021-2027. Resetting education and training for the digital age. Available at: https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf

Consultation should also be sensitive to local needs, and should incorporate the valuable lessons learnt from bottom-up initiatives. Creating "communities of practice" (CoP) (Lave & Wenger, 1991) or "virtual communities of practice," (vCoP) (Dubé, Bourhis, & Jacob, 2005), which are "groups of people who come together to share and to learn from one another," is also "an innovative way to combine working, learning, and innovating" as well as creating "new organisational capabilities" by "managing knowledge through collaborative work" (Dubé, Bourhis, & Jacob, 2005). While the literature on communities of practice is concerned with the role such communities play in the effective management of intellectual capital, these communities may become vital in managing crises like the pandemic, and in mobilising expertise efficiently to support the community, such as the schools, students and teachers. Importantly, there is "increased awareness that **CoPs or VCoPs** need to be managed and **should be part of a systematic and strategic approach**" by organisations, as well as governments, particularly during crises (Dubé, Bourhis, & Jacob, 2005).

Figure 3: Cooperation network for more inclusive decision making in education

Overall, perhaps of greatest importance is the need for **investment in data collection systems and research to evaluate** the situation within education institutions themselves, in order to understand the impact and implications of educational policies. The corollary to this is the imperative need for the **facilitated networks of experts** to problem solve and create repositories of innovative solutions and responses. This investment could be akin to the increased finances being dedicated to a proper medical response; it might now be time to consider also investing in a proper social and educational response to the crisis. An informative example of how various expert networks could be mobilised and work together is that of Inclusion International, and its 'Catalyst for Inclusive Education' initiative (Inclusion International, n.d.). This organisation works with its members, as well as thematic groups of experts, to gather experience, generate knowledge and mobilise expertise to promote more inclusive education. Inclusion International's model of cooperation can serve as an example for a network supporting educational decision making (see Figure 3).

💡 Recommendations

Challenge	Recommended national action	Recommended EU action
Lack of data-driven response to COVID-19	National authorities should put mechanisms in place to continuously evaluate the effectiveness, adequacy and impact of measures taken during the COVID-19 crisis, and use the lessons learnt as a starting point for future crisis management strategies.	EU institutions should encourage and fund comprehensive pan-European research into the (long-term) effects of the pandemic on various education and youth sectors, identifying lessons from education in emergencies and foresight studies on the best strategies for the recovery and transformation of education and youth systems.
Insufficient cooperation between stakeholders during the pandemic	State bodies charged with crisis management must consider a broad spectrum of stakeholders, including education institutions, expert groups and associations, the private sector and youth organisations, etc. Working with communities of practice or incorporating their feedback in decision making may be vital for sustainable crisis management and subsequently rebuilding resilient systems. The expert groups that were established in some countries should remain intact after the pandemic and be used as a foundation for continuing communities of practice.	The EU should work towards a coordinated system that enhances collaboration and cooperation between distinct sectors working towards a common purpose. This would facilitate collaborative decision making in the event of future crises. The European Commission should encourage and support the development of sustainable networks and education communities that can enable rapid response through access to expert advice.
Lack of longer-term thinking for resilience	Although many aspects of future crises cannot be foreseen, education authorities should develop specific strategies for the continuation of education in emergency situations, focusing particularly on flexible arrangements for students, quality assurance for alternative education approaches, and the inclusion of vulnerable children.	European Commission should capitalise on existing EU exchange and learning platforms to ensure the smooth, up-to-date and accessible flow of knowledge, good practice and peer-learning with regard to the continuation of formal and non-formal education in times of crisis. There is a need to address the fragmentation and dispersion of available information and lessons, as well as to facilitate exchange and collaboration between national authorities. The European Commission should also encourage action by national and regional Ministries of Education to engage and incentivise practitioners to join the existing communities and platforms, which, along relevant professional development opportunities, can build capacities of local stakeholders to develop education for the future and adapt under crisis conditions.

4.1.2. Quality and accessibility of education

Overall, education systems in EU Member States have been sufficiently flexible to allow *ad hoc* adaptations, adjustments and transformations (in terms of having the necessary legal provisions in place). Member States have proven themselves able to respond quickly to the closures of educational

institutions, and to switch to online learning. The flexibility of education systems (in terms of legal provisions and bureaucratic procedures) has enabled both compulsory education providers and further education (HE and VET) providers to adapt classroom education to a virtual format. In addition, Member States proved remarkably quick to introduce adaptations to exam regulations, apprenticeship requirements and even quality assurance procedures.

Of greater concern are the capacities of education systems and stakeholders not only to transform from classroom to virtual education, but also to ensure the **quality and accessibility** of online education. In many instances, key challenges with regard to practical and interactive education that were perceived during the first wave remained unaddressed during the second wave. This is particularly evident among ECEC institutions, where the core of education programmes revolves around play and socio-emotional (ECEC) skills. Between March and November 2020, no solutions or adaptations were found in relation to this aspect of education. Due to this (among other reasons), Member States aimed to continue ECEC and apprenticeships during the second wave instead of closing them.

In terms of equity and access, educational content was often contingent on students having appropriate technology and internet connectivity available at home, as well as sufficient autonomy to work remotely. (Exceptions to this include educational practices such as the work-based component of VET, which have been impossible to replace with online learning.) In other words, as a recent OECD study concluded, "online learning is only available to children that have access to a broadband connection at home that is fast enough to support online learning". According to recent Eurostat data, broadband access varies widely across the EU depending on household income, and many low-income households have no access to computers (Eurostat, 2019). However, as the OECD study noted, "simply providing access or using digital technologies does not automatically lead to better academic results" (OECD, 2020f). Equity in educational settings, particularly in the face of an external shock such as the pandemic, must therefore be viewed in its entire complexity. To address these challenges, education experts at McGill University have developed an equity-based educational plan to better address the difficulties associated with COVID-19 (Levitan, 2020). Overall, its recommendations revolve around a different approach to learning that would allow a more holistic understanding of education. This emphasises the wellbeing of both students and teachers, and consists of learning skills and knowledge, as well as evaluation processes.

Figure 4: Equity-based education plan

Educator and student wellbeing need to be embedded into the daily practice of learning	Schools also need to have viable "low tech" backup options for remote learning
Equity-based education plan	
Integration of project-based learning, to learn a variety of skills and knowledge in person or remotely	Improving modes of evaluation so that student success and evaluation processes work equitably in person and remotely (e.g. learning portfolios, project reports)

Source: Levitan, 2020

It is imperative to recognise that "[educational] losses [due to COVID-19] were especially marked among those from disadvantaged homes" (Engzell, Frey, & Verhagen, 2020), and to develop meaningful solutions. Technology and innovation can potentially be mobilised to ensure inclusive learning practices. For instance, the Universal Design for Learning framework, created by the non-profit education research and development organisation CAST, rests on the principle that learning

environments must be "flexible, inclusive, and student-centred to ensure that all students can access and learn from the course materials, activities, and assignments". This principle, according to Hodges et al. (2020), must be part of our discussions around teaching and learning during and after the pandemic.

Recommendations

Challenge	Recommended national action	Recommended EU action
Lack of access to tools for online learning and lack of skills to recognise which of them are most suitable for different education levels and use these tools meaningfully	All education stakeholders should invest in education innovation to ensure that digital education can reach a level of quality as close as possible to that achieved through classroom education. Education stakeholders need to better understand that online education cannot be a simple 'replication' of classroom education in a virtual environment and should consider innovative methods to foster the affective dimension and a sense of belonging in virtual contexts.	The European Commission should further support national education stakeholders in advancing the European Education Area, the implementation of the Digital Education Action Plan and the European Youth Work Agenda, reflecting the EU ambition to promote high-quality, inclusive, forward-looking education and training systems that harness technology and support all learners, irrespective of gender, age or background.

EU institutions should support Member States in fostering a culture and practice of innovation in education and youth work. This could be achieved by improving smart education sectors and youth work, while placing greater emphasis on developing the digital competences of both young people and educators (through the existing instruments such as the DigiComp 2.1 Framework and DigiCompEdu for teachers). Investing in technological infrastructure and innovation will further help to overcome the digital divide and ensure access to formal and non-formal education for all families. |
| **Lack of solutions for situations in which online learning is not an option** | Further investment in VET is required to develop alternatives to school-based practical training, which can be shared with, and adapted by, VET institutions. Suitable approaches should be found to continue organising work-based training in a real-life environment by taking additional safety precautions (e.g. regular testing and monitoring, social distancing, wearing protective gear, and the ventilation/disinfection of premises), as well as incentivising employers to retain trainees. | It is crucial to strengthen the capacity of education stakeholders to navigate transformations in both the offline and online worlds. It is also important to recognise that digital learning may not be applicable in all situations. The planned European Digital Education Hub could serve as a platform for collaboratively developing new solutions and approaches that effectively combine online and offline education. |
| **Lack of common standards, interoperability,** | Guidelines or frameworks are needed to measure and assure the quality of virtual education, to support the work of | The EU should facilitate the development of spaces, both online and offline, for cooperation and exchange to allow |

| accessibility and quality assurance of digital learning content | education inspectors, and to provide standards and guidance to education stakeholders when faced with crises and subsequent adjustments.

National authorities should invest in improving modes of evaluation so that student success and evaluation processes work equitably in person and remotely (e.g., learning portfolios, project reports) | education communities of practice to learn beyond their national contexts and even beyond the European context (such as the newly planned European Digital Education Hub under the implementation of Digital Education Action Plan 2021-2027).

At the same time, it is important to identify, support and enlarge existing networks and platforms to promote the development of consistent quality standards (e.g., the Jean Monnet awards for European associations).

Furthermore, it is imperative to motivate and incentivise education stakeholders to use these spaces, networks, and platforms.

The European Commission could assist Member States in developing guidelines and frameworks to measure and assure the quality of virtual education, possibly as part of a coherent, EU-wide strategy. It could be considered to develop and include digital education quality education indicators into EU wide survey and monitoring. |

4.1.3.   Support for students and their families

Evidently, the pandemic has forced us to rethink traditional ways of both teaching and learning. Along with the transformation of education systems has come a change in the way we think about education. Potentially, a significant shift in emphasis has also occurred, from a teaching culture to a learning culture. The focus on a learning culture also assumes a closer consideration of students' needs, motivation and wellbeing, which necessarily includes support for their parents, teachers and community. A recent study by the OECD aptly highlights the role of parents (OECD, 2020f):

> Students' attitudes and dispositions are influenced to a great degree by the support they receive from families and teachers and by the role models they are exposed to. Different forms of support from families and teachers, including parental emotional support and teacher enthusiasm, are found to be important for the development of positive attitudes towards learning and can ensure that students acquire the attitudes and dispositions that can maximise their ability to make the most of online learning opportunities. Yet, some families and teachers may struggle to provide such support – especially during the COVID-19 crisis – because of a lack of time, insufficient digital skills or lack of curricular guidelines.

Assistance for parents and teachers in supporting students is especially critical in relation to younger children. For instance, one aspect that has remained unaddressed during the pandemic is the ability to adjust virtual education to a student's level of independence, in order to ensure that every child is able to work with the online materials without (significant) parental guidance. Where parental support is required, the necessary assistance and adjustments should be made. The first wave of COVID-19 and related school closures undoubtedly placed **tremendous pressure on parents** to ensure that their children could continue their education. This is particularly evident among ECEC and primary school children, and even among lower-secondary pupils who are not yet able to study independently.

In countries where schools closed again during the second wave, no evidence was found that progress had been made in ensuring age-appropriate digital approaches for children that limited their reliance on parents. As a result, younger pupils (particularly those without strong parental support) remain more negatively affected by school closures, compared with their older peers for whom digital learning may have had less impact (and may have actually stimulated self-management and digital skills). An excellent example from a public school in New Jersey, USA shows how such adjustments can contribute to great improvements: when the school began to offer kindergarten and first-grade classes from 6pm until 8pm from mid-October 2020, so that working parents could support their small children in their learning without interruption, attendance and student engagement rose steeply (Nierenberg & Pasick, A Simple Fix: Kindergarten at Night, 2020).

It may be time to reconsider our approach to learning, which must go beyond academic progress to holistically include support networks, as well as **social and emotional wellbeing**. Numerous reports and research studies have demonstrated that managing anxiety and promoting emotional wellbeing among students, teachers and families has been of crucial importance. It has also become evident that the wellbeing of teachers in times of crisis, such as during the pandemic, is essential to children's development (Kotonya, 2020); indeed, their role becomes that of "'educarers', providing empathy, stability and security to students" (Varadharajan, 2020). The recommendations of the Yale School of Public Health revolve around two pillars: strengthening a sense of belonging, and intervention when needed. Intervention may take various forms: self-care education, meditation or mindfulness sessions, mental health workshops, as well as therapeutic groups that are attentive to the needs of students, teachers and family (Yale School of Public Health). Sense of belonging can be strengthened by stressing that physical distancing is not social distancing. Importantly, belonging is seen as a broader concept that is not limited to school, but extends to the family and community as well.

Relying on a holistic vision, HundrED has developed its theory of change to explain how innovation in education takes place. Integral to this theory is research that identifies innovation, the communities that help innovations spread, the educators who act as co-developers of solutions, and the media, which shares innovations on various platforms (Petrie, et al., 2020). Similar to this proposition is the concept of "powered-up schools" (Vegas & Winthrop, 2020), which may be one solution to creating a student-centred, resilient and future-oriented education system.

Figure 5: "Powered-Up Schools"

💡 Recommendations

Challenge	Recommended national action	Recommended EU action
Limited knowledge and tools regarding the best ways to introduce age-appropriate digital solutions	Additional research and tools are needed, based on an evaluation of COVID-19 measures, to ensure the quality and continuation of ECEC during school closures (for example, through age-appropriate digital tools). Education ministries should make these tools available to ECEC institutions.	Together with a framework for quality assurance, clear guidance is needed for education policymakers to understand what constitutes age-appropriate virtual education that is sensitive to the level of development and independence of children at different stages of education. The European Digital Education Hub, envisaged under the implementation of the Digital Education Plan, can serve as an important 'think-and-do-tank' for designing and implementing various age-appropriate digital education models.
Limited focus on the socio-emotional well-being and safe learning spaces in digital context	Education and learning should widen its focus from academic achievements to encompass the social and emotional wellbeing of students, teachers, and their support networks, especially in the context of online education.	At EU level, the promotion of mental health and socio-emotional wellbeing should be seen as a crucial element in advancing the quality and resilience of education. The European Commission could facilitate the exchange of good practices and resources to promote and maintain the mental health of children and young people, particularly those facing intersectional inequalities.
Lack of efficient school-community/family partnerships	The important role of parents (and other family members) as co-educators is one of the COVID-19 lessons that should be part of the transformative vision for the organisation of education in the post-COVID context. Emphasis should be placed on investing in capacity building for families and schools, to promote systematic and sustainable family-school partnerships for the well-rounded development of children in offline, blended and digital contexts, as well as effective support frameworks for different groups of families (taking into account their diverse needs) in the event of possible future crises.	The European Commission should continue to promote the exchange of good practices through the School Education Gateway, providing platforms that can facilitate family-school partnerships (in offline and online format as suggested by the School on the Cloud), as well as promoting learning in terms of how such partnerships appear to work best.

4.1.4.   Funding and training

Both the research and the interviews conducted for this report unquestionably demonstrated that blended learning models were being strongly considered for the long term at most levels of education, and particularly for older children, continuing into the post-pandemic world. During the public consultation for the Digital Education Plan 2021-2027, 95 % of stakeholders considered the COVID-19 crisis as marking a point of no return in the way technology is used in education and training (Z., G., J., & F., 2020). This change will involve not only re-thinking the curriculum, teaching content and assessment methods; it will also necessitate governments re-prioritising certain aspects of education funding. **Closing the digital gap,** for example, may become an even more urgent goal. Unsurprisingly, Members of the European Parliament (MEPs) have recently urged governments to close the digital education gap, observing that "the pandemic exacerbated inequalities in the EU, making it difficult for many to access school education" (European Parliament, 2020c). As an immediate concern, governments should direct more investment towards the digital education of both youth and professionals, to guarantee both access to education and the skills required to provide remote education.

As a report by Laura Abadia, Policy Analyst at the OECD Development Centre aptly put it, "rigorous evidence should become the guiding compass for the investment of limited resources" in education (Abadia, 2020). **Funding needs to be reconsidered and reprioritised**. This is particularly important, given that funding for education is likely to decrease in the EU and worldwide after the pandemic, due to likely cuts in government subsidies, the inability of students to afford fees, and a lower number of international students. **Transformation in education financing** is already underway. For example, in response to a call to action by ActionAid International in September 2020, 190 organisations signed up to offer an alternative path for financing education in developing countries suffering major cuts to domestic budgets (ActionAid, 2020). Global funds joined forces with various NGOs to financially assist in the building of resilient education systems, with a special emphasis on equity and distance learning methods. The United Kingdom, meanwhile, set up a financial support scheme to address the exceptional costs associated with coronavirus through government structures (UK Gov. Department of Education, 2020).

To mitigate financial challenges, the World Bank, is advocating "smart buys" – namely, those investments in education deemed the most cost-effective at improving learning outcomes (World Bank, 2020b). However, what exactly this means in practice is somewhat ambiguous. For governments, the report recommends investing in in-service teacher training on education financing, as well as developing targeted teacher training and coaching to deal with specific issues. Examples from South African universities highlight that "the training of staff who manage the information technology infrastructure and academic staff who teach and do research is critical for a successful transition from contact teaching to hybrid teaching" (Phakeng, Habib, & Kupe, 2020).

Based on extensive research, a recent report by the EdTech and coronavirus series similarly concluded that "teachers need professional development support in the use of technologically enhanced pedagogy" to improve student–teacher engagement, teachers' virtual presence, and the effectiveness of instruction – the pillars of successful remote learning (McAleavy & Gorgen, 2020). The capacity and skills of stakeholders have proven to be a precondition for the continuity of education. The training of teachers can be arranged formally or organised through less formal networks aimed at sharing resources and best practices. For example, this report demonstrates that universities have been best able to switch to digital learning and provide blended approaches to education, partly because extensive exchanges between departments and between universities have enabled the adoption of good practices and suitable virtual education tools. In contrast, VET institutions and ECEC institutions,

whose capacity and resources are limited compared with those of universities, have faced significantly greater difficulties in this regard. Schools and ECEC institutions have also struggled with the generally low level of preparedness among teachers for using online teaching and communication tools. Overall, adequate training and preparation of teachers is key at every level of education (OECD, 2020f).

Lastly, countries' technological capabilities must also be improved. Accordingly, funding should be extended to ensure the development of appropriate technology infrastructure for educational institutions, as well as IT equipment for both students and teachers. A leading example of this is Germany, where the Federal Ministry of Education and Research in early 2020 announced its commitment to supporting digital education in the country by: 1) establishing infrastructures and increasing digital teaching provision; 2) procuring digital devices for school students; and 3) providing technical equipment for teachers, altogether "investing EUR 6.5 billion in the digital transformation of schools" (German Ministry of Education And Research, 2020). Some scholars, however, caution against "making long-term political plans and/or investments in educational technologies" before conducting an in-depth critical analysis of the matter. Digital technologies should be seen as a tool that enables suitable pedagogies to be adopted at the right time and context – rather than as a recipe book – solution for crises. (Teräs, Suoranta, & Teräs, 2020), (Estermann, Pruvot, Kupriyanova, & Stoyanova, 2020).

Overall, the priorities of educational institutions should continue to engender excellence, as well as promoting affordability, equal access, resilience and sustainability – and these goals must be appropriately funded. To promote affordability and access, the funding of education systems must be re-examined. Financial support, including investment and the potential for fostering public–private partnerships, must also be considered within the overall context of re-thinking the future of education. As learning spaces are reconceptualised, the funding of education will have to assist with this transition and provide the necessary resources – in terms of professional development and equipment – to facilitate change.

💡 Recommendations

Challenge	Recommended national action	Recommended EU action
Digital divide	The digital gap must be urgently addressed by improving digital infrastructure and internet connectivity of education institutions and households, especially in remote areas.	The EU should ambitiously address the opportunities and challenges of digital transformation in education and training, and foster the development of a high-performing digital education ecosystem.
Insufficient digital literacy of students, and lack of digital competence among educators and training staff	Teacher training programmes at all levels of education should place a greater focus on digital tools and digital learning pedagogies, as well as on digital content creation, to enable teachers to provide quality education online or through the use of digital tools in the classroom. Aside from professional training programmes organised at national level, teachers should be encouraged to engage in digital literacy education as part of their lifelong learning strategy, using various widely available online professional development resources (e.g. those developed by UNESCO MGIEP, FutureLab and many others).	The EU should better support Member States by encouraging the use of existing resource and exchange platforms, and facilitating the networking of national stakeholders with regard to the process of digitalising education (e.g., through the European Digital Education Hub and the DigCompEdu framework). National stakeholders, and practitioners specifically, should be encouraged and incentivised to become part of the professional learning communities, including in the field of digital education.
Lack of flexible education financing models in times of crisis	To promote affordability and access, the existing funding models of education systems could be re-examined. Education authorities should consider exploring the potential of public–private partnerships in education, fostering the collaboration of EdTech and public education institutions to enhance quality, access and equity in the future education.	The European Commission should support the process of digital transformation of education in Member States, including in the area of education financing, by promoting knowledge creation and exchange, as well as policy learning through existing collaboration spaces and newly planned ones, such as Digital Education Hub.

4.2. Improving EU funding programmes in the field of education and youth and their responsiveness to crises

Analysis of the impact of COVID-19 on the EU education and youth programmes demonstrates that both Erasmus+ and European Solidarity Corps activities have been affected by COVID-19, mainly with respect to their in-person and cross-border elements. Due to the different approaches taken by EU Member States to border closures and lockdowns, these EU-managed programmes were affected by decisions made at a country level, leading to diverse range of impacts from COVID-19 on Erasmus+ and the ESC, depending on the individual Member States concerned.

In terms of managing its programmes and providing flexibility, the EU framework for education has demonstrated an overall resilience and capacity for adaptation. This is due to the *force majeure* clause, the enhanced decision-making powers of NAs, increased channels for communication and exchange between education actors, and the introduction of new calls for proposals. However, the report found certain weaknesses in the EU response, the rectification of which could enhance the resilience and quality of its programmes.

4.2.1. Framework for *ad hoc* actions and unforeseen events

Confronted with national-level measures to reduce the spread of COVID-19, the EU was perceived as being rather slow to formulate its response. Responses from both the interviews and the survey indicate that a faster EU response could have prevented a large proportion of the uncertainty felt by both national agencies and the beneficiaries of the programmes. In addition, some levels of education, such as Early Childhood Care and Education, received practically no guidance from the EU at all – and are, in the first place, covered to a more limited extent by EU funding programmes. Previous evaluations of EACEA had already indicated that significant legal frameworks would hinder the EACEA in responding efficiently to unforeseen events. In addition, like the MS, neither DG EAC nor the EACEA had any risk plans or strategies in place that could guide decision making during a crisis such as the COVID-19 pandemic. The first conclusion on the resilience of the EU programmes is therefore that in the immediate outbreak of a crisis, the legal and policy framework governing the main actors (EAC, EACEA) proved too inflexible to allow a swift response.

Having said that, once an appropriate legal and financial framework had been set up, EU institutions have also demonstrated significant levels of flexibility. Enabling the use of the *force majeure* clause empowered national agencies to make executive decisions on projects and mobility that affected their country of operation. As a result, responses to mitigate the impact of COVID-19 could be tailored to the actual situation and reality on the ground, being adjusted both in financial terms and project length, and without delays due to the need for constant communication and approval from EACEA. Representatives of national agencies explained that the clause allowed them to better assist beneficiaries and coordinate the return of youth on mobility projects.

It is unlikely in the current context that the EU and DG EAC could have provided swifter policy responses without compromising legal and financial certainty for national agencies and beneficiaries. However, given the lessons learnt and experiences gathered from the pandemic, the EU can redesign or upgrade its current crisis response plans to enable a quicker response in the future.

💡 Recommendations

Challenge	Recommended EU action
Slow decision-making process and inflexibility of funding programmes at the EU level to enable swift response at the national level	EU institutions and bodies should critically assess and evaluate their internal efficiency and the work of internal crisis management teams. Similar to the use of the *force majeure* clause, EU education legislation should provide flexibility in the event of adversity and unforeseen crises.
	EU institutions can use the lessons learnt from the current crisis to develop strategies and frameworks to guide their responses in future crises. Risk mitigation strategies should be put in place (based on the lessons learnt from COVID-19) to ensure that the EU can act quickly and effectively in the event of a future crisis.
	EU institutions should continue to collaborate effectively with and build the capacity of national agencies, which will play a leading role in the post-COVID-19 recovery.
	EU institutions should promote the use of Erasmus cooperation projects to support the digital transformation plans of primary, secondary, vocational education and training (VET), higher, and adult-education institutions, as envisaged under the new Digital Education Action Plan 2021-2027.

4.2.2.   The European Union and youth

Findings from both Chapter 2 and Chapter 3 have demonstrated the particular vulnerability of the youth sector during the COVID-19 crisis. Often, the needs and perspective of youth were not considered in countries' COVID-19 mitigation decision making. In most Member States, the lack of an established and recognised sector, and consequent lack of support for such a sector, means that many organisations are highly dependent on EU funding and the ESC as structures.

The European Union adopted the same approach for its ESC programme as for the mobility programmes: namely, a high level of autonomy for national agencies and wide flexibility with regard to virtual work and the postponing of activities. However, during the crisis the youth sector has required greater support, both financially and in terms of protection (monitoring and supporting vulnerable youth), as well as integration into policymaking and community work. Therefore, this flexible approach to volunteering, virtual activities and the postponement/extension of activities may not necessarily respond to the needs of youth or of host organisations. In fact, the virtual nature and postponement of activities actually means that some work that is essential (both for the community and for the youth themselves) has simply not occurred.

In addition, national agencies warned that many of the host organisations for youth may not survive the pandemic. This could have longer-term consequences for the presence of youth organisations and youth support in Europe. Given the lack of national support for youth organisations, EU funding is of crucial importance. Flexibility towards grant requirements for youth organisations during the COVID-19 pandemic is one aspect, but the youth sector requires far more support during this time.

While virtual approaches to student and youth mobility have been rapidly introduced, limited efforts are visible to ensure their inclusivity (e.g. to combat the digital divide). One reason for this is that the launch of blended learning in mobility and of virtual volunteering took quite a long time, and are still being developed and assessed. The delayed launch of virtual alternatives is perceived by national agencies as a missed opportunity to learn more about virtual tools and virtual activities. Virtual

activities are also eligible for less funding than face-to-face activities. This leads organisations to postpone activities rather than providing a blended or virtual alternative, which may not always be in the best interests of the students or youth.

However, this report also shows that the capacity of (some) youth organisations to improvise and shift their work to support communities through COVID-19 mitigation products, and to make effective use of digital tools to continue collaboration. Youth has great potential to generate knowledge and to help with the transition towards more resilient societies, provided they are included in decision making as fully-fledged partners.

Recommendations

Challenges	Recommended EU action
Lack of youth involvement in decision-making	Place the youth sector at the forefront of current meetings, collaborations and exchanges with Member States, and design COVID-19 recovery plans that consider the needs and perspectives of youth and the youth sector.
Insufficient recognition of youth work and as a results lack of strategy, outreach, funding, and available tools to support it in times of crisis	Strengthen the cross-sectoral approach and mainstream youth work priorities in overall European funding (such as the European Solidarity Corps, Erasmus+, the European Social Fund, Climate Pact and Horizon 2020)
	Support Member States to institutionalise representation for the youth sector, or develop youth sector strategies in line with EU strategies for youth. This includes the integration of youth into risk and crisis management strategies for future crises, as well as the creation of more resilient youth work structures, encompassing long-term thinking and strategy-based youth work (rather than project-based).

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This paper demonstrates that the COVID-19 pandemic posed unprecedented and multidimensional challenges to the education systems and youth sector, revealing the lack of preparedness in terms of crisis management and digital education responses, as well as reinforcing structural weaknesses of education delivery. Given that various sectors of education and the youth sector faced distinct challenges, there are valuable lessons to be learnt from policy responses and best practices across Europe. The common goal should be to build more resilient education systems, which are responsive and adaptive to future crises.