

Executive summary

This Note offers recommendations in 10 key areas to policy makers at the national, regional and institutional level on how to address the crisis using lessons learned so far and continue preparation towards the post-pandemic era of tertiary education:

1. Continue to develop creative and sustainable responses that enable staff to deliver **teaching and learning** when there is no access to a physical campus. Innovate teaching and learning methods to better engage students and allow for a more interactive education. Consider alternative models for student assessment. Continuously monitor data and collect feedback.
2. Balance the **research** portfolio, diversify funding for research, and consider implementing a long-term research strategy to ensure long-term sustainability of research activities at TE institutions in the post-pandemic future. Facilitate networking and international collaboration of researchers.
3. Diversify institutional **funding** streams and avoid over-reliance on tuition fees in order to achieve more balance between public and private funding and build a resilient funding model. Strengthen institutional contingency planning to maintain sustainability in crisis.
4. Explore possibilities of raising or at least keeping the existing level of institutional autonomy. Consider introducing a shared **governance** model and support institutional autonomy. Postpone all the network processes - such as mergers/closures of institutions – to the post-pandemic time, and if this is not possible, then make them as transparent as possible, with all the stakeholders engaged in the consultations.
5. Adapt national and institutional **quality assurance** regulations for a more flexible approach in review and assessment of online and blended delivery of academic programs. Foster development of the virtual tools for the internal and external quality assurance in tertiary education. Pay attention to cyber security to ensure the virtual safety and prevent education fraud.
6. Prioritize **equity** issues. Ensure internet access and continue to provide devices and comprehensive support services to disadvantaged students, including academic support, counseling and mental health services. Provide support to graduates to navigate the crisis related uncertainties of the labor market.
7. Continue assessing the adequacy of **student financial support** provision - policies that target funding directly at disadvantaged students, including grants, income-contingent loans, and specific tuition fees, can become a powerful tool for ensuring access and preventing drop-out of at-risk students during the crisis as well as in the post-COVID era.
8. Continue providing additional support and flexible pathways for international students. Intensify “internationalization at home” efforts as a response to the crisis affecting student and staff mobility, but also as a long-term solution aiming to provide **international perspectives** to the local students who are not likely to be mobile in the coming years.
9. Support regular and consistent communication with **staff** to ensure engagement and to address operational challenges at all levels. Slow the timing of decisions on tenure and reappointment to account for the new and unexpected tasks faculty members have had to shoulder. Suspend as much as possible staff dismissals during the period of the crisis.
10. Continue to assess tools and online support services required for critical processes at university such as teaching and learning, management, timetabling, student records, assessment, and collecting feedback. Think about **infrastructure** in a long-term way which will allow flexibility in shifting to online and remote work in time of crisis. Monitor and strengthen cyber security to ensure the virtual safety.

¹ This paper was prepared by Lucia Brajkovic, Assel Mukhamezhanova, Denis Nikolaev, and Polina Zavalina, all from Europe and Central Asia (ECA) region of the World Bank’s Education Global Practice. It is a second edition of the initial document prepared in May 2020 by Nina Arnhold, Lucia Brajkovic, Denis Nikolaev, and Polina Zavalina, (<http://documents1.worldbank.org/curated/en/783451590702592897/COVID-19-Impact-on-Tertiary-Education-in-Europe-and-Central-Asia.pdf>). While the paper focuses mainly on the ECA region, it also draws on the World Bank’s global note, “Tertiary Education and COVID-19”. The authors would like to thank Nina Arnhold, Diego Ambasz, Husein Abdul-Hamid, Rafael Navarro and Kris Mcdonall for their input and comments, and Harry Patrinos, Manager, ECA Education, the World Bank, for his guidance.

Introduction

The ongoing COVID-19 pandemic has had unprecedented effects on countries all over the world, and many tertiary education institutions had to quickly suspend campus-based operations. As the epidemiological situation has been constantly shifting, some countries have introduced gradual reopening of universities (Russia, Poland, the UK, France), while others introduced hybrid models (Germany, Spain, Italy, Belgium). Some universities in ECA countries allowed on campus presence only for vaccinated students (e.g. in Russia). But even with a big effort and progress made in transition to distance teaching and learning, most institutions are still impacted by a learning crisis, caused by COVID-19 pandemic, which is affecting around 40 million students in ECA².

Fundamental changes in teaching and learning modalities, delayed research activities, raised inequalities, ad-hoc exam procedures, disruptions in international mobility, additional unexpected financial and infrastructure needs, and the need for new models of quality assurance – all represent challenges that gained prominence during 2020-21 and will have to be further tackled in the coming months and years. Moreover, the crisis will have a significant impact on countries' competitiveness and their ability to foster advanced skills and regional development. With student and academic mobility being a key dimension of the Bologna Process (a pan-European higher education reform process), mobility restrictions particularly affected tertiary education in ECA. At the same time, universities emerged as key players in developing and implementing the response to the global health crisis by applying research and training of medical professionals.

1. Teaching and Learning

The COVID-19 outbreak has caused a huge impact on the tertiary education system. Even with the best efforts made during distance teaching and learning, majority of tertiary education institutions are still impacted by the COVID-19-related learning crisis.³ The sudden closure of campuses as a social distancing measure to prevent community transmission has shifted face-to-face classes to online learning systems. The new 2021/22 academic year is starting differently for students in ECA countries. Some countries have already announced return to full-time education (Poland, UK, France), however, challenges are still evident as the quality of teaching and learning has deteriorated during the pandemic. Many students have missed out on the practical components of their education, which may impact their future work prospects⁴. Moreover, many students are experiencing stress and psychological difficulties due to lack of face-to-face teaching and massive e-learning, risk for reduction of academic perspectives, economic issues, social restrictions, and implications for daily life⁵.

Recommendations:

- Build the capacity of university staff, faculty and students and learn new skills to strengthen the distance teaching and learning environment⁶. Ensure that teachers have the pedagogical skills, necessary tools, platforms and guidelines to teach students at their level and implement the adapted curriculum in an online environment and students have online learning support to stay on top of their workload and to keep making progress in their learning⁷. Going forward, support to teacher development is a key to ensure the continuity of the teaching and learning process.
- Continue to develop creative and sustainable responses that enable staff to deliver teaching and learning when there is no access to a physical campus. Enlarge training programs for the staff, incentivize the creativity, empathy and judgement of university teachers⁸. Online teaching is a fundamentally different process than face-to-face teaching – it is not just doing the same work from a different place. In most countries staff had already experienced a lack of training on digital skills, digital pedagogy and IT

² https://databank.worldbank.org/id/c755d342?Code=SE.TER.ENRL&report_name=EdStats_Indicators_Report&populartype=series#

³ Salmi, J. (2020). Learning from the Past, Coping with the Present, Ready for the Future: Impact of COVID-19 on Higher Education from an Equity Perspective.

⁴ Salmi, J. (2020). Learning from the Past, Coping with the Present, Ready for the Future: Impact of COVID-19 on Higher Education from an Equity Perspective.

⁵ Cielo, F.; Ulberg, R.; Di Giacomo, D. Psychological Impact of the COVID-19 Outbreak on Mental Health Outcomes among Youth: A Rapid Narrative Review. *Int. J. Environ. Res. Public Health* 2021, 18, 6067. <https://doi.org/10.3390/ijerph18116067>

⁶ Marinoni, G., Land, H., Jensen, T. (2020). The Impact of COVID-19 on Higher Education around the World. IAU Global Survey Report.

⁷ <https://www.sheffield.ac.uk/apse/digital/coronavirus/teachonlinestudents>

⁸ Education During COVID-19 and Beyond: Commentary on the Secretary-General's Policy Brief. <https://www.un.org/en/un-chronicle/education-during-covid-19-and-beyond-commentary-secretary-general%E2%80%99s-policy-brief>

tools before the crisis. This has made the shift to fully digital teaching and research so difficult⁹. Innovate teaching and learning methods and conduct student satisfaction surveys in order to be able to better engage students and allow for a more interactive and experiential education¹⁰.

- Introduce new assessment instruments (such as oral examinations¹¹, flexible modes of examination, varying sets of exam questions, reduced time limits, open book written examinations, formative assessments¹², remote online exams¹³) to reflect changed curriculum and the difficult physical conditions faced by tertiary education institutions and students. Continuously monitor the data and collect feedback at the student, teacher, and university level to analyze the lessons learnt, tailor further interventions, and prepare for the post-pandemic recovery.
- Build / increase collaboration among universities in sharing good practices and experiences from better-equipped and prepared universities to their less-prepared peers in their region or country¹⁴.
- Prepare graduates for changing working landscape and a more virtual world. The COVID-19 pandemic disrupted labor markets globally and the automation of work has even more accelerated¹⁵. HEIs should prepare for the increase in demand for teaching in STEM fields.

2. High-stakes Exams

The disruption of school-leaving and university entrance exams still continue as some countries suffer third waves of COVID-19 infections worldwide. However, the situation in ECA seems more stable in comparison with that of in East Asia and Pacific (e.g. China, Japan and South Korea are postponing the university semesters¹⁶).

Despite of continuous tackling the school and university closures at the academic year 2020-2021 many ECA countries (Hungary, Russia, Belarus, Estonia, Azerbaijan, Tajikistan, Georgia, Kazakhstan, Switzerland) conducted the school-leaving / university entrance exams as planned with health and safety measures. Nevertheless, some countries in the region considered the following options: cancellation of the secondary school assessment (Ireland, UK, Belgium, Georgia), calculating the students' performance based on annual grades, making the exams not mandatory (Portugal), or easing the conditions of examination (France, Slovenia, Latvia).

The midterm assessments and the graduation exams are still conducted online (Kazakhstan, Germany, Kyrgyzstan, Italy, Switzerland) and the institutions could face several challenges including a possible increase in dishonest behaviors, difficulty in assessing practical knowledge and skills, a need to ensure a fair treatment of test takers and the risk of technical failure.¹⁷

Recommendations:

- Consider redesigning examinations for a specific context of institutions, faculties, students or courses (oral examinations¹⁸, flexible modes of examination, varying sets of exam questions, reduced time limits, open book written examinations, formative assessments¹⁹, remote online exams²⁰).
- Consider substituting final examinations with alternative models for student assessment such as Google Forms, remote projects, remote testing²¹, Open Methods like open-book, open-net and

⁹ Trade unions are concerned about the impact of COVID-19 pandemic on higher education and research staff. <https://www.csee-etu.org/en/policy-issues/covid-19/3974-trade-unions-are-concerned-about-the-impact-of-covid-19-pandemic-on-higher-education-and-research-staff-3>

https://forbes.kz/process/dast_li_koronavirus_impuls_razvitiyu_onlayn-obrazovaniya_v_kazahstane/

¹¹ https://www.sheffield.ac.uk/staff/elevate/alternative_assessment_cv19

¹² <https://onlinelibrary.wiley.com/doi/epdf/10.1002/au.30219>

¹³ <https://www.oecd-ilibrary.org/docserver/f53e2177-en.pdf?expires=1607593723&id=id&accname=quest&checksum=64ADEE7BE4BB429F09B7F8629F2B1E7D>

¹⁴ <https://www.vsnu.nl/files/documenten/Dutch%20universities%20in%20times%20of%20corona.pdf>

¹⁵ <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>

¹⁶ <https://www.universityworldnews.com/post.php?story=20200227071915884>

¹⁷ <https://www.oecd-ilibrary.org/docserver/f53e2177-en.pdf?expires=1607087646&id=id&accname=quest&checksum=D9C6A13C5F1C8FFABDE7A3D018702C06>

¹⁸ https://www.sheffield.ac.uk/staff/elevate/alternative_assessment_cv19

¹⁹ <https://onlinelibrary.wiley.com/doi/epdf/10.1002/au.30219>

²⁰ <https://www.oecd-ilibrary.org/docserver/f53e2177-en.pdf?expires=1607593723&id=id&accname=quest&checksum=64ADEE7BE4BB429F09B7F8629F2B1E7D>

²¹ <https://community.pepperdine.edu/seaver/center-teaching-excellence/keep-on-teaching/online-tests.htm>

take-home examinations²²; Collaborative Methods like small group instruction diagnosis, cooperative experiences, peer-reviews, capstone tools and other online and offline-group simulations; Portfolios like online and offline portfolios, wiki-based approaches, bundling of short research projects and social media portfolios; and Writing-based methods like reflective student essays, articles, dissertations and multiple-choice question preparation).²³

- Consider implementing online/remote proctoring as a solution to supervise remote examinations in order to reduce a risk of student academic dishonesty.²⁴ Some proctoring software allows to lock down students' browsers and record them during the examination to prevent them from relying on external help.

3. Research & Innovation

The first wave of COVID-19 pandemic has brought many challenges to research in tertiary education²⁵. Even though only 9% of HEI's research activities have been stopped in Europe (compared to 43% in Africa and 31% in Asia & Pacific)²⁶, some projects and clinical trials slowed down as universities closed the campuses, and the priority was given to work related to the coronavirus (i.e. UK²⁷, Belgium²⁸, Switzerland²⁹). Research projects conducted with industrial partners and smaller start-ups suffered from reduced funding³⁰. Another issue was a shift of priorities towards COVID-19 related research³¹. More funding opportunities arose for scientific projects on coronavirus (i.e. EU³²); however, some countries had to review the budgets due to extended expenses on fight with COVID-19 pandemic (i.e. Russia³³).

Despite various negative aspects of the crisis, the pandemic has pushed universities to reconsider their research role not only in the local community, but also in global dimension³⁴. The pandemic revealed a need for innovations in many areas³⁵, which is why universities should think how to better organize and raise their research capacities in order to better inform national policies and contribute to global knowledge.

Recommendations:

- Balance the research portfolio, diversify funding for research, and consider implementing a long-term research strategy. Continuity of funding, multiple funding streams, and research support mechanisms are important elements for ensuring long-term sustainability of research activities at TE institutions in the post-pandemic future. Strategic approach is even more important if research funds decrease is expected.
- Ensure networking and facilitate international collaboration of researchers: (i) online events help sharing information and increase the capacities of institutions highlighting the advantages that society receives from research; (ii) online platforms (i.e. AUF platform³⁶) promote exchanges and transfer of expertise between scholars, and may contain information and tools about remote research methods³⁷, advice on how to manage a research group online and communicate efficiently, how to restart a project after quarantine, blogs and best practices from coworkers³⁸; (iii) Open Science practices³⁹ could accelerate critical research at crisis times; (iv) establishing of consortia helps to

²² [Open-Book and Take-Home Exams | UNSW Current Students](https://www.universityworldnews.com/post.php?story=20200925151506665)

²³ <https://www.universityworldnews.com/post.php?story=20200925151506665>

²⁴ <https://library.educase.edu/resources/2016/5/7-things-you-should-know-about-remote-proctoring>

²⁵ https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf

²⁶ https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf

²⁷ <https://www.bioworld.com/articles/433882-biomedical-rd-takes-hit-as-university-labs-trials-shut-down-due-to-covid-19>

²⁸ <https://www.ugent.be/en/news-events/ugent-corona-policy-stringent-measures.htm>

²⁹ https://ethz.ch/content/dam/ethz/main/research/Allgemein/Corona/Weisung_Corona_Forschung_EN.pdf

³⁰ <https://voxeu.org/article/challenges-and-opportunities-start-ups-time-covid-19>

³¹ <https://www.nature.com/articles/d41586-020-03388-w>

³² https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/ec_rtd_coronavirus-new-research-projects.pdf

³³ <https://www.rbc.ru/economics/06/10/2020/5f7b372b9a7947fe8e8d644f>

³⁴ <https://www.universityworldnews.com/post.php?story=20201128082044454>

³⁵ <https://blogs.worldbank.org/voices/innovation-and-sound-policies-are-critical-protect-people-during-crisis>

³⁶ <https://aneuf.auf.org/>

³⁷ <https://www.ugent.be/en/research/pandemic-research>

³⁸ <https://www.birmingham.ac.uk/university/colleges/mds/news/2020/04/home-working-blog.aspx>

³⁹ Open Science is "a growing movement aimed at making the scientific process more transparent and inclusive by making scientific knowledge, methods, data and evidence freely available and accessible for everyone... Open Science facilitates scientific collaboration and the sharing of information for the benefit of science and society, creating more and better scientific knowledge, and spreading it to the wider population". (Source: <https://news.un.org/en/story/2020/11/1077162>)

engage partners who can contribute both technical expertise and financial support, which is especially needed during pandemic and in post-pandemic future.

- Prepare for a gradual reopening of labs and facilities in advance and provide clear guidelines at governmental (UK⁴⁰) and institutional (i.e. ETH Zurich⁴¹, The Norwegian University of Science and Technology⁴²) levels. Such instructions should be regularly updated and should contain explicit information related to safety at workplace and research⁴³.
- Prepare future field visits in advance by using streaming and online collaboration tools in the initial phase, in order to make later physical exchanges more effective once they happen. When giving access to facilities, prioritize the most critical research projects and vulnerable groups of staff and students (Denmark⁴⁴) and use online system for booking time slots at the labs to maintain social distancing (i.e. The University of York⁴⁵).

4. Financing and Governance

The two areas that require significant rethinking during and post COVID-19 pandemic in order to ensure recovery and boost resilience of HEIs are institutional financing and governance. Institutional expenses related to overcoming challenges of the pandemic have been significant so far and continue to rise. Issues include staff layoffs, uncertain future of education abroad programs, fundamental changes in teaching and learning techniques, research funding, funding for partnership and community engagement, and enrollment management strategies⁴⁶.

In order to reach short-term solutions and respond to immediate challenges through local or national economic relief programs, many countries (i.e. Denmark, France, Finland, Germany, Singapore, Taiwan, the UK, and the US) have adopted economic rescue packages that include support for HEIs⁴⁷. Such support could, in turn, allow institutional leadership to focus on developing mid- and long-term strategies for their institutions, while also tackling some underlying structural issues - such as over-dependence on tuition fees, lack of funding diversification, lack of institutional endowment⁴⁸, and lack of contingency planning. The silver lining of the pandemic for the TE sectors across ECA countries may lie in the opportunity to finally focus on building more balanced, resilient and sustainable institutional financing models, as well as innovative approaches to governing and managing TE institutions.

Recommendations:

- Consider diversifying institutional funding streams and avoid over-reliance on tuition fees in order to achieve more balance between public and private funding and build a resilient institutional funding model in the post-pandemic era. The number of tuition-paying students (especially international) is likely to decrease in the coming year, and possible cuts in public investment for TE will have a detrimental effect on the sector. For example, ministries of education in EU countries should take advantage of the COVID-19 relief packages and funding opportunities provided by the EU, such as the new Recovery and Resilience Facility (RRF)⁴⁹. TE institutions should become proactive on local and international students' market, but also use national programs of support during COVID pandemic that were launched almost in all countries of the ECA region.
- Explore possibilities of raising or at least keeping the existing level of institutional autonomy. Several challenges in this area have already gained prominence: i) greater public control over student numbers (Ireland, Sweden) in view of unemployment predictions, ii) staffing autonomy in terms of possible staff recruitment restrictions, iii) autonomy in teaching and learning while governments push

⁴⁰ <https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/labs-and-research-facilities>

⁴¹ <https://ethz.ch/services/en/news-and-events/coronavirus/researchers.html>

⁴² <https://innsida.ntnu.no/wiki/-/wiki/English/Temporary+guidelines+for+necessary+work+in+laboratories+due+to+corona#section-Temporary+guidelines+for+necessary+work+in+laboratories+due+to+corona-Guidelines+for+necessary+work+in+laboratories+and+workshops>

⁴³ <https://ethz.ch/services/en/news-and-events/coronavirus/researchers.html>

⁴⁴ <https://mitsdu.dk/en/service/coronavirus/coronavirus-update/coronavirus-update-210420>

⁴⁵ <https://www.nature.com/articles/d41586-020-02815-2>

⁴⁶ https://www.iau-aiu.net/IMG/pdf/iau_covid-19_regional_perspectives_on_the_impact_of_covid-19_on_he_july_2020_.pdf

⁴⁷ <https://www.luminafoundation.org/wp-content/uploads/2020/11/covids-lessons-for-global-higher-education.pdf>

⁴⁸ <https://www.luminafoundation.org/wp-content/uploads/2020/11/covids-lessons-for-global-higher-education.pdf>

⁴⁹ https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

for sole online teaching⁵⁰, and iv) increase in centralized prescription of action (England)⁵¹. But academic freedom is “an indispensable aspect of quality learning, teaching and research in higher education as well as of democracy”⁵² as it is stated in Roma Communiqué of EHEA countries Ministers.

- Postpone all the network processes - such as mergers/closures of institutions – to the post-pandemic time, and if this is not possible, then make them as transparent as possible, with all the stakeholders engaged in the consultations. Pay attention to the possible rise of differentiation between various types of institutions as a result of these mergers and the overall pandemic crisis. Private institutions that are usually most vulnerable in such situations may need potential government support during and after pandemic.
- Consider introducing/strengthening institutional contingency planning. This process should involve performing thorough risk assessments followed by incorporating mitigation measures designed to respond to the medium- and long-term consequences of the crisis (e.g. the expected upcoming economic recession) as well as incorporating lessons from the ongoing pandemic⁵³. Improved Higher Education Management Systems (HEMIS) could help a lot in these processes, especially in situation of campus lockdowns. In order to achieve this the TE sector could explore the expertise and experience of the private/business sector on how to maintain sustainability in crisis and emergency situations.

5. Quality Assurance

The global Covid-19 pandemic forced tertiary education institutions to move online on very short notice not only teaching, learning and research but also internal quality assurance procedures. In this new reality quality assurance agencies had to adapt their procedures accordingly, while being responsive and supportive to the needs of the sector. The pandemic has also given more urgency to the discussions on the future of quality assurance in Europe.

Recommendations:

- Foster development of the virtual tools for the internal and external quality assurance in tertiary education - these tools will be useful in post-pandemic era as well. The existing European experience revealed that virtual mode did not negatively impact the efficacy of the review process⁵⁴. Both ENQA and EQAR declared that transfer to online processes in the situation of pandemic is fully permissible under the ESG, and both organizations encourage their members to offer flexibility to tertiary education institutions in this regard⁵⁵.
- Adapt national and institutional quality assurance regulations for a more flexible and less formalized approach in review and assessment of online and blended delivery of academic programs, considering specific national and institutional contexts. All parties involved in the process, including national authorities, agencies and institutions, should maintain a dialogue to address any issues that may hinder this flexibility.
- Work on mechanisms for detecting education fraud in work submitted online. Until now such tools have rarely been tested in an examination environment. Employers, professional bodies and other stakeholders in tertiary education are highly concerned that the value of qualifications awarded under emergency conditions may be questionable⁵⁶. Encourage tertiary education institutions and quality assurance agencies to develop and implement fit-for-purpose approaches to quality assurance of

⁵⁰ Trade unions are concerned about the impact of COVID-19 pandemic on higher education and research staff. <https://www.csee-etu.org/en/policy-issues/covid-19/3974-trade-unions-are-concerned-about-the-impact-of-covid-19-pandemic-on-higher-education-and-research-staff-3>

⁵¹ Enora Bennetot Pruvot, Thomas Estermann, Veronika Kupriyanova, Hristiyana Stoyanova. EUA, Public Funding Observatory. Financial and economic impact of the Covid-19 crisis on universities in Europe.

https://eua.eu/downloads/publications/pfo%20part%201_ppt%20-%20im.pdf

⁵² Rome EHEA Ministerial Communiqué. https://ehea2020rome.it/storage/uploads/5d29d1cd-4616-4dfe-a2af-29140a02ec09/BFUG_Annex-I-Communiqué_Statement_Academic_freedom.pdf

⁵³ <https://www.luminafoundation.org/wp-content/uploads/2020/11/covids-lessons-for-global-higher-education.pdf>

⁵⁴ 2020 European Quality Assurance Forum. <https://www.eua.eu/events/72-2020-european-quality-assurance-forum.html#tab2>

⁵⁵ EQAR COVID-19 consequences. <https://www.eqar.eu/covid-19/#how-should-we-handle-the-esg-requirement-to-have-site-visits> ENQA statement on COVID-19 pandemic. <https://enqa.eu/index.php/home/enqa-statement-on-covid-19-pandemic/>

⁵⁶ Dennis Farrington. The consequences of COVID-19 on the education system: the legal perspective.

<https://www.coe.int/en/web/education/article-the-consequences-of-covid-19-on-the-education-system-the-legal-perspective>

digital education, micro-credentials and other non-traditional forms of tertiary education, using the flexibility of the ESG and exploring the room for innovation⁵⁷.

- Start preparation of the future post-pandemic QA evaluation and reflection if sustained changes to external quality assurance arrangements are appropriate and fit-for-purpose⁵⁸. While exceptional measures are needed in a time of crisis, as the situation progresses there will be a certain need in evidence-based policymaking related to adoption of the new virtual QA policies or return to the pre-pandemic ones.

6. Equity

The experience of institutional closures due to the pandemic and transition to online learning disproportionately affected disadvantaged students⁵⁹. These student populations - including students of lower socioeconomic status, minorities, refugees, and students with learning disabilities - were often faced with a lack of access to the technology necessary for participation in online learning, as well as with limited or no access to campus services. For many at-risk students, dormitories constitute their primary residence and campus facilities secure their meals, health care and support services, including academic and mental health counselling. Generally, life on campus provides these students with the necessary preconditions to focus on their academic commitments⁶⁰. Without consistent access to technology, coordinated institutional guidance, counseling, and support, the most vulnerable students are likely to fall out of tertiary education.

Disparities in access and retention are also likely to increase even further during pandemic and in post-COVID era as students of lower socioeconomic status and their families become severely constrained by their financial situation amidst the global economic downturn. Specific targeted national and institutional funding policies can become crucial levers for increasing enrollment and attainment among low-income and underrepresented student populations in the coming years⁶¹.

Recommendations:

- Continue with consistent provision of devices and internet access⁶² to students in need. Many at-risk students have only sporadic access to technology necessary to adequately participate in online learning, and a large proportion of them share devices with multiple family members. Reach out to these students and ensure they receive adequate technological support.
- Continue providing comprehensive support services to disadvantaged students, including academic support, counseling and mental health services. Additionally, secure accommodation and food service provision for at-risk students, if possible⁶³. The accessibility of essential services during the pandemic can significantly lower potential risk of drop-out for disadvantaged student populations.
- Consider coordinated measures and partnerships between the tertiary and secondary education sectors and support with university entrance exams⁶⁴, which will be very important in mitigating the potentially dire consequences of the pandemic on the educational outcomes of at-risk students. The pandemic will have an adverse effect on the pipeline of students into tertiary education,⁶⁵ as many of at-risk students have already dropped out in their final year of secondary education due to the strain of the crisis.
- Continue assessing the adequacy of financial support provision for needy students. Several countries introduced specific measures aimed at low-income students during the pandemic (Canada, US, Netherlands, Germany, Ireland)⁶⁶. Policies that target funding directly at disadvantaged students⁶⁷, including grants, income-contingent loans, and specific tuition fees, can become a powerful tool for

⁵⁷ https://ehea2020rome.it/storage/uploads/74793530-dc2d-47ea-90d6-c05ced30e5ea/EQAR_Statement_EHEA_Ministerial_Conference_Rome2020.pdf

⁵⁸ ENQA statement on COVID-19 pandemic. <https://enqa.eu/index.php/home/enqa-statement-on-covid-19-pandemic/>

⁵⁹ <https://www.luminafoundation.org/resource/covids-lessons-for-global-higher-education/>

⁶⁰ https://www.up.ac.za/media/shared/1/2020/September%202020/uncertain-times-paper_final_08092020-1.zp194357.pdf

⁶¹ <https://www.iesalc.unesco.org/en/2020/04/14/global-student-financing-policies-funds-for-the-achievement-of-equity/>

⁶² https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sq_policy_brief_covid-19_and_education_august_2020.pdf

⁶³ <https://studentski.hr/studenti/vijesti/studentski-zbor-otkrio-hoce-li-menze-raditi-ako-dode-do-zatvaranja-restorana>

⁶⁴ <https://www.universityworldnews.com/post.php?story=20201113085637660>

⁶⁵ https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sq_policy_brief_covid-19_and_education_august_2020.pdf

⁶⁶ <https://www.universityworldnews.com/post.php?story=20201113085637660>

⁶⁷ <https://www.iesalc.unesco.org/en/2020/04/14/global-student-financing-policies-funds-for-the-achievement-of-equity/>

ensuring access and preventing drop-out of at-risk students during the crisis as well as in the post-COVID era. An interesting example comes from a Russian university that offered employment to students who lost their jobs due to the pandemic.⁶⁸

- Provide support to graduates in navigating the crisis related uncertainties of the labor market. It is critical to provide support in transition to labor market in order to avoid future negative effects of the COVID-19 pandemic. This support can include specific online career guidance and advice as well as national short-employment programs and special labor-market transition arrangements, including those related to the fight against the epidemic.
- Governments should consider introducing additional targeted funding and support for institutions serving large numbers of underrepresented populations. Introducing financial policies that incentivize institutions to improve equity and completion outcomes - such as specific performance funding indicators related to equity⁶⁹ - can help increase enrollment and attainment among low-income and underrepresented student populations in the post-COVID era.

7. Internationalization

COVID-19 impacted all aspects of internationalization of tertiary education across the globe in a profound way. Short-term student mobility as well as global admissions and enrollments will continue to be affected at least until pandemic is put under control worldwide⁷⁰. Accordingly, a large number of institutions have been affected by significant revenue losses due to decrease in the number of tuition-paying international students. Some European countries (Austria, Denmark, Finland, France, Germany, Netherlands, Norway, and Sweden) are extending financial support to international students⁷¹ through grants and interest-free student loans and other benefits. However, number of such countries is limited in ECA region.

Moreover, according to the QS June 2021 report, “the majority (67%) of current international students had not been offered any kind of incentive to physically return to campus”⁷². Another arising issue is students’ wellbeing and mental health. More than 50% of undergraduates responding to a global survey, conducted by Chegg, say that their mental health had suffered as a result of the COVID-19 pandemic.⁷³ For international students, however, the toll has been even greater. International students face unique challenges and they may be more vulnerable when asking for mental help.

In the *Erasmus+* program, many institutions have cancelled short-term mobility for the spring semester of 2021 or even the academic year, while others are turning to blended approaches as the European Commission allowed partial virtual exchange replacing the physical one.⁷⁴ The health crisis also exposed the need for a more robust international cooperation in the area of research and a better coordination at the European and global level.

Recommendations:

- Continue providing additional support and flexible pathways for international students. This can include further deferral of admission, the option to study remotely in the case of a late arrival or quarantine period and providing information and administrative help with visa and financial aid issues. It is also important to maintain regular communication with international students in the country and abroad and to monitor their physical and mental well-being.⁷⁵
- Consider tapping into crisis response resources and measures focused on internationalization, like those provided by the EU. Partnerships for Digital Education Readiness⁷⁶ focuses on building capacity of institutions to provide high quality, inclusive digital education. International cooperation among countries, tertiary education institutions and digital technology providers will be essential in the post-COVID era as it is during the pandemic.

⁶⁸ [https://www.dvfu.ru/news/fevu-](https://www.dvfu.ru/news/fevu-news/the-university-offers-jobs-to-students-who-have-lost-their-jobs-because-of-the-epidemic/)

[news/the-university-offers-jobs-to-students-who-have-lost-their-jobs-because-of-the-epidemic/](https://www.dvfu.ru/news/fevu-news/the-university-offers-jobs-to-students-who-have-lost-their-jobs-because-of-the-epidemic/)

⁶⁹ <https://www.iesalc.unesco.org/en/2020/04/14/global-student-financing-policies-funds-for-the-achievement-of-equity/>

⁷⁰ <https://info.qs.com/rs/335-VIN-535/images/Higher-Education-in-2020-How-COVID-19-Shaped-this-Year.pdf>

⁷¹ https://ec.europa.eu/education/study-in-europe/news-views/support-international-students-covid-19_en

⁷² https://info.qs.com/rs/335-VIN-535/images/CV%20Report%20JUNE%20Studying%20abroad%20again_v1.6.pdf

⁷³ <https://www.chegg.com/about/wp-content/uploads/2021/02/Chegg.org-global-student-survey-2021.pdf>

⁷⁴ https://www.iau-aiu.net/IMG/pdf/iau_covid-19_regional_perspectives_on_the_impact_of_covid-19_on_he_july_2020_.pdf

⁷⁵ <https://www.eaie.org/blog/how-higher-education-institutions-respond-covid-19.html>

⁷⁶ https://ec.europa.eu/programmes/erasmus-plus/resources/documents/second-corrigendum-2020-erasmus-programme-guide_en

- Intensify “internationalization at home” efforts as a response to the crisis affecting student and staff mobility, but also as a long-term solution aiming to provide international perspectives to the local students who are not likely to be mobile in the coming years. This approach entails internationalizing curriculum and co-curriculum to support and expand student global learning. These efforts should involve the entire campus community, including management, academic and administrative staff and students.⁷⁷
- Insure adequate institutional funding for internationalization in the post-COVID era. International cooperation among tertiary education institutions has proven crucial in times of crisis, health-related or otherwise⁷⁸. Important knowledge exchanges through student mobility, cross-border research cooperation, and knowledge diplomacy⁷⁹ will ensure better preparedness of institutions, governments and individual and foster resilience in the face of the upcoming economic and other potential challenges and crises

8. Staffing

The COVID-19 crisis has transformed work in universities, impacted faculty members and their careers⁸⁰ and caused rushed transitions to online teaching, disruptions to nearly all research activities and added service and mentoring work. Closure of campuses, reopening and new closure make the life of the university staff unpredictable and challenging, especially for those on precarious contracts. A clear guidance from the national authorities and university management is needed regarding short and mid-term staffing arrangements. Additionally, COVID-19 economic relief packages can protect employment in the tertiary education sector.

Recommendations:

- Keep protocols for regular and consistent communication with staff to ensure engagement and to address operational challenges at all levels. Allow for open dialogue between staff and management. At virtual town halls faculty members can convey their concerns⁸¹. Without involving employees and their representatives in decision-making, managers could come up with supposed solutions that may be worse than the problems they are trying to deal with⁸². Consider introducing a shared governance model – delegation of some management functions and awarding more power and responsibility to academics and administrators can lead to innovative and effective solutions to various challenges that arose during the pandemic and in the post-pandemic era as well.
- Slow the timing of decisions on tenure and reappointment to account for the new and unexpected tasks faculty members have had to shoulder. Adopt inclusive evaluation practices that recognize the impact of COVID-19 on faculty careers, both in the short and long term. Many university professors were forced to neglect their research duties in order to ensure good preparation and provision of online teaching to their students.
- Suspend as much as possible staff dismissals during the period of the crisis. Job security has already plummeted with all the redundancies happening in universities, e.g. in UK and Australia⁸³. Funded extension of academic appointments could be considered at governmental (i.e. Netherlands^{84,85}) and institutional (i.e. the Geneva University⁸⁶, The University of Lancaster⁸⁷) levels to support researchers whose work has incurred delays due to the coronavirus pandemic.

⁷⁷ <https://www.coimbra-group.eu/wp-content/uploads/Final-Report-Practices-at-CG-Universities-in-response-to-the-COVID-19.pdf>

⁷⁸ <https://www.luminafoundation.org/resource/covids-lessons-for-global-higher-education/>

⁷⁹ <https://kluwerlawonline.com/journalarticle/European+Foreign+Affairs+Review/24.2/EERR2019021>

⁸⁰ <https://www.nature.com/articles/d41586-020-01656-3>

⁸¹ Ethel L. Mickey, Dessie Clark and Joya Misra. Measures to Support Faculty During COVID-19.

<https://www.insidehighered.com/advice/2020/09/04/advice-academic-administrators-how-best-support-faculty-during-pandemic-opinion>

⁸² Working from home during COVID-19: What do employees really want? <https://theconversation.com/working-from-home-during-covid-19-what-do-employees-really-want-148424>

⁸³ This is how many jobs each Australian university has cut – or plans to – in 2020. <https://www.businessinsider.com.au/australian-university-job-cuts-losses-tally-2020-9>

⁸⁴ https://www.vsnu.nl/en_GB/news-items/nieuwsbericht/569-information-on-the-coronavirus-in-relation-to-universities-update-of-19-march.html

⁸⁵ <https://www.rijksoverheid.nl/ministeries/ministerie-van-onderwijs-cultuur-en-wetenschap/documenten/kamerstukken/2020/10/06/antwoord-op-vragen-over-de-oproep-tot-een-continuïteitspakket-voor-jonge-wetenschappers-in-de-knel>

⁸⁶ <https://www.unige.ch/coronavirus/en/recherche/>

⁸⁷ <https://www.lancaster.ac.uk/research/research-services/impact-of-covid-19/>

- Recognize intensified caregiving demands of staff. The pandemic has drastically altered the family and personal lives of faculty members, taking enormous health and financial tolls and negatively impacting their work. Women have already submitted fewer papers in 2020⁸⁸ compared to previous years.
- Start preparation for the post-pandemic life. It will not be the same as before, many changes will follow, including those related to the academic staff work and interaction in universities. Consider responses and solutions related to the new aspects emerged in the crisis - such as the change in the nature of the academic work or intellectual property rights. For example, while professors had to prepare their own teaching materials, the copyright of these materials was often not ensured by universities nor national legislation.

9. Infrastructure

The COVID-19 disruption to tertiary education exposed many significant infrastructure challenges⁸⁹, including demand for improved digital technologies and facilities to support continued distance and blended learning models, data collection⁹⁰, and prevent cyber-security threats to universities⁹¹. Pandemic showed that success or failure depends not just on staff and TE leadership, but also on proper IT infrastructure⁹² that enables critical processes in universities.

Recommendations

- Continue to assess tools and online support services required for critical processes at university such as teaching and learning, management, timetabling, student records, assessment, and collecting feedback. Tools for blended learning are needed at early stages of reopening campuses and they could become essential in the post-COVID era. Think about infrastructure in a long-term way. Secure systems and cloud-based technologies (such as National Research and Education Networks (NRENs)⁹³ and Virtual desktop infrastructure (VDI)⁹⁴) will allow flexibility in shifting to online and remote work in time of crisis. Investing in ICT, artificial intelligence and online support services for scientists could facilitate their research work off campus. Technology and robots⁹⁵ may be a solution for field work and data collection during the quarantine. Tools for collecting feedback⁹⁶ are important to analyze how information is delivered through online platforms in terms of content and language and how long an individual can stay focused in an online learning setting.
- Design guidelines for infrastructure use in close collaboration with research facilities users to ensure that instructions are evidence-based, clear, realistic and fair and keep them up to date (i.e. Scotland⁹⁷).
- Assess and plan for security issues related to (i) vacant buildings filled with expensive technology and laboratories; (ii) cyber security to ensure the virtual safety (i.e. UK universities⁹⁸). Consider the opportunities and risks of working with specific providers.

Outlook

Over the past year and a half, countries, tertiary education institutions, as well as individuals had to pause, reconsider, and revamp their activities in light of COVID-19. Much of the initial discussion has focused on infrastructure for online teaching and learning and connectivity, whereas in the first half of 2021 the focus has shifted towards the medium- and long-term prospects for the TE sector across ECA. Stronger emphasis should be placed on developing blended learning models that could become the “new normal” for many

⁸⁸ Colleen Flaherty. Something's Got to Give <https://www.insidehighered.com/news/2020/08/20/womens-journal-submission-rates-continue-fall>

⁸⁹ https://www.itu.int/en/ITU-D/Conferences/GSR/2020/Documents/GSR-20_Impact-COVID-19-on-digital-economy_DiscussionPaper.pdf

⁹⁰ <https://www.nihr.ac.uk/blog/the-pandemic-data-collection-challenge/25102>

⁹¹ <https://www.universityworldnews.com/post.php?story=20200607084916387>

⁹² <https://www.openaccessgovernment.org/why-universities-must-put-their-best-foot-forward-with-digital-infrastructure/95817/>

⁹³ <https://www.openaccessgovernment.org/why-universities-must-put-their-best-foot-forward-with-digital-infrastructure/95817/>

⁹⁴ <https://blogs.vmware.com/emea/en/2020/04/empowering-business-continuity-and-online-education-at-wsb-university-in-wroclaw-with-vmware-horizon/>

⁹⁵ i.e. University of Windsor in Canada <https://www.uwindsor.ca/dailynews/2020-10-07/underwater-robots-help-great-lakes-scientists-collect-data-during-pandemic>

⁹⁶ i.e. The University of British Columbia UBC Survey Tool <https://it.ubc.ca/services/teaching-learning-tools/survey-tool>

⁹⁷ <https://www.gov.scot/publications/coronavirus-covid-19-guidance-for-laboratories-and-research-facilities/>

⁹⁸ <https://techmonitor.ai/boardroom/innovation/how-universities-responding-covid-19>

institutions across the region. However, other areas require rethinking as well - building resilient institutional funding models; providing comprehensive support services to students (including support with the labor market transition) and staff; reimagining student financial aid mechanisms; balancing research portfolio and implementing long-term research strategies; and improving institutional internationalization efforts are all important elements for ensuring long-term sustainability of the sector.

Besides the broad issues it poses, the COVID-19 crisis might retrospectively be considered as an opportunity to strategically revamp systems, introduce risk management mechanisms, and prepare for challenges to come. The social and economic fallout of the crisis will become more and more visible in the months and years to come and will likely result in some short-sighted, reactionary decisions. Protecting a sector which is crucial not only for social cohesion and regional development but also for competitiveness and innovation as well as the productive and sustainable growth of societies is the task at hand. This issue can only be addressed in a collaborative way, through cooperation among individuals, institutions, and countries. In this, as in so many other ways, the COVID-19 pandemic might expose the challenges and potential solutions to the problems we will see in the future.