



# Synthesis Report

Mapping the digital readiness and resilience of HEIs in response to the COVID-19 crisis in Bulgaria, Croatia, Germany, Italy, and the EU in the context of:

*Governance and enabling services*

*Teaching and learning practices and infrastructure*

Authors: Adisa Ejubovic (Münster University of Applied Sciences) and Boriana Marinova (New Bulgarian University)

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## Introduction

This synthesis report is a summary of the main findings coming from the series of individual reports detailing the developments in the DigiTransformEdu project partner countries as well as developments in the EU in general and aims to inform the actors on the current state of affairs when it comes to digitalisation of higher education and training. The project “Digital Transformation of Higher Education and Training: DigiTransformEdu” (<https://www.digitransformedu.com/>) is a 26-month Erasmus+ project (2021-2023) that aims to foster the digital transformation of educational and training institutions by mapping their digital readiness and resilience in response to the COVID-19 pandemic among other objectives. The project is centred on the transformation to digital/online education that is defined as a distance form of education, in which digital tools and information and communication technologies are used to enable teaching, learning, assessment, certification, and the organisation of the educational process while learners, teachers, and administrators might be located in different places and the process might be either synchronous or asynchronous in time.

The rapid onset of COVID-19 permanently changed the digital landscape of education in the EU and beyond. Though digitalisation was on the agenda in many EU countries pre- COVID-19, it is through forced closures of schools, universities, and other training institutions that the digital strategies and words turned into action. The DigiTransformEdu project explores the digital transformation in the educational systems above level 5 (from 5 to 8) in accordance with the International Standard Classification of Education (ISCED). In this study, four EU countries (Bulgaria, Croatia, Germany, and Italy) and EU-general level were examined in terms of digitalisation before and after the pandemic. More specifically, four dimensions of institutional structures were used as a prism, namely governance, enabling services & administration, infrastructure, and teaching & learning. The study conducted desk research and empirical research (surveys and interviews) to gauge to which extent COVID-19 accelerated digitalisation in Higher Education Institutions (HEIs), and Vocational Education and Training (VET) organisations, what were particular drivers, barriers, support mechanisms and learning takeaways.

## Main findings

With the onset of the COVID-19 pandemic, it is evident that the transition to digital education happened very swiftly in the given countries mainly in the HEIs and less smoothly in VET establishments whose traditional practices are strongly rooted in the physical presence of the learner. Structures were put in place very promptly to enable functioning of the institutions and to ensure that the processes go unhindered as much as possible. In Italy for instance, 72% of teachers managed to activate remote teaching just within few days from the start of the lockdown. Italian “Digital Solidarity” initiative promoted by AGID and the Ministry for Technological Innovation, schools and universities had access to totally free services or to special procurement conditions. In Croatia, in the first week of lockdown, more than 50.000 virtual staffrooms were established with the participation of 450.000 students and teachers. In Bulgaria, the HEIs that before the pandemic had offered distance education, had invested in e-learning platforms and had established well-functioning centres of distance and online education managed to make the transition without disruptions and compromising much on quality. Differently, the German HEIs appeared less prepared for online education that resulted in lower satisfaction with the way their HEI responded to the pandemic and students attending less classes compared to the classical face-to-face environment. When it comes to learning platforms and virtual classrooms, majority of countries adopted Moodle, Microsoft Office 365 Education including Microsoft Teams, Zoom, etc.

Digital competencies of teachers were put into the spotlight across many countries, as in most of the cases they were not up to the challenge, but the need for strengthening soft and transferrable skills, such as communication and problem solving, was also highlighted. Looking into some empirical data in Croatia (4139 teacher sample), 95% of teachers are satisfied with the way they perform distance teaching while 90% think students manage well their distance learning. In Italy, 57% of teachers reported they believed their digital skills increased. In Germany 71% of teachers said their digital skills improved compared to pre- COVID-19 times. In Bulgaria the majority of students (62%) and lecturers (81%) consider that their digital competence improved during the pandemic and agree that the digital competence of their counterparts also improved.

As mentioned, in many of the countries, even before the Covid-19 pandemic there has been a commitment on the governance level to push forward the digitalisation at universities and training institutions. However, less than 20% of universities in the EU had a plan with specific measures with regards to digitalisation, while the majority had mainly some kind of institutional approach for digitally enhanced learning and teaching. Yet, this has proved to be a big motivating factor during the pandemic. Italy for instance had formulated as one of their statements a need to “build a vision of education in the digital era, through a process able to tackle all the challenges that our society is facing supporting lifelong learning both as a formal and non-formal process”. The idea of cultural change in terms of digital education was also evident in Germany with the term “digital turn”. In Croatia a substantial motivating factor was fostering teachers’ digital independence, while the Bulgarian legislator ‘upgraded’ distance education from an organisation of the educational process (2004) to a form of higher education (2021). Other motivating factors included need for more flexibility, time-saving for students due mainly to reduction in commuting time, need for effectiveness (Italy) and need for adopting digital technologies (Croatia).

This was not without issues and many similar problems that came to the surface. Examination was reported to be difficult indicating that not all phases of digital pedagogy were ‘ready’ to be transferred online. For instance, in Bulgarian HE landscape cheating has been often perceived as an issue, as well as the inadequate use of online tests in the examination process. Furthermore, practical exercises and activities were particularly challenging, especially in VET, where learning from practice and technical training form an important part of the curricula. Didactic problems were frequently reported as a major tripping stone in all countries surveyed. Stress, overload and digital fatigue were often stated as major issues, particularly on the side of the teachers/lecturers, while students struggled with distraction and decline in motivation. In Italy, more than 70% of teachers reported that they needed more time to prepare digital lessons, as well as organise and carry out examinations. Cybersecurity, data protection and privacy concerns were also intensified during the pandemic. Socio-economic issues were as well reported with the digital divide increased to further deepen the problems for students with disadvantaged social background. This led to an extensive discussion at national, European, and international levels about how to narrow the digital gap and ensure inclusive digital education.

What does the future have in store for digitalisation in education? Looking at the findings from all countries, it has been a consensus that digital education cannot fully replace face-to-face education. Things like human interaction, socialisation and physical space cannot be overridden for their digital equivalents. An interesting finding here is the difference in preferences among students and teachers when the format of education is concerned. While bachelor and especially first-year students prefer education on site and if this is not possible, are attracted by hybrid or online education that is as similar as possible to the on-site education, master students, who often combine their study with part-time or even full-time job, prefer more diversity in the format, greater interactivity, and autonomy, and opt

for fully online or blended. At the same time teachers prefer blended or fully face-to-face teaching and are not persuaded by the fully online option. Another important point is that digital education requires particular attention and a different approach in terms of strategy, content, pedagogy, and competencies (integrated in the professional development schemes for teachers) and the mere transposing of face-to-face classes and practices into online teaching is not an option especially when areas such as individual and group interaction and online evaluation are concerned. In this respect, Bulgaria puts forward a well-aligned strategy to support comprehensive digitalisation, digital competencies, innovative pedagogy and other dimensions. In Croatia, the recovery and resilience plan includes the development of a strategic framework, “Croatia 2030 Digital Strategy” and investments to support the development of digital skills and the continuation of the reform of the education system. German education advocates for digital allowance for universities to have stable and sustainable funding base to execute digitalisation in all areas. In Italy the focus is on connectivity by providing ultra-broadband Internet and innovative services to public schools as well as to the scientific, academic and cultural community. This approach resonates at EU level with the 2021-2027 Digital Education Action Plan that offers guidance to the Member States on how to prioritise funding for digital education using the Recovery and Resilience Facility and other cohesion policy instruments, in which upskilling and boosting very high-capacity broadband connectivity are “flagship investments”. All in all, one thing is for sure, COVID-19 has initiated a digital revolution and it is a matter of institutional commitment that will decide to what extent this momentum is captured.

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