

**Final report**

**THE FUTURE OF DIGITALLY  
ENHANCED LEARNING AND  
TEACHING IN EUROPEAN HIGHER  
EDUCATION INSTITUTIONS**

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May 2023





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Co-funded by the  
Erasmus+ Programme  
of the European Union



The DIGI-HE project is co-funded by the Erasmus+ Programme of the European Union. This publication reflects the views only of the authors, and the

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#### How to cite this report:

Gaebel, M. & Morrisroe, A. (2023). The future of digitally enhanced learning and teaching in european higher education institutions. European University Association asbl.

#### European University Association asbl

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## Executive summary

**DIGI HE** is an Erasmus+ co-funded project (2020–2023) implemented in partnership between the European University Association (EUA), Dublin City University (DCU, Ireland), Baden-Wuerttemberg Cooperative State University (DHBW, Germany), Vytautas Magnus University (VMU, Lithuania) and the University of Jyväskylä (JYU, Finland).

The project is designed to help universities develop their digitally enhanced learning and teaching (DELT) capabilities.

While DELT in higher education has increased over the past decade, it may not yet have led to strategic, mainstreamed institutional approaches. When the project was planned in 2018–2019, DELT seemed more like an extra or alternative than a core part of conventional teaching. Although the rising number of programmes and courses have now demonstrated its feasibility, the impact and benefits of flexible provision, student-centredness, social inclusion and access, quality, internationalisation etc. are hard to assess, and are yet transform higher education systems and missions.

To help institutions develop more powerful and more transformative, strategic approaches to DELT, the project identified:

- ❑ **institutional self-assessment**, as a means to map changes, and identify development needs and opportunities, for successful DELT strategy. Self-assessment and strategy development must involve staff and students to enhance their active engagement in strategy implementation. The self-assessment process, and implementation of the resulting strategy, must be adequately resourced, with institutional support and coordination structures, infrastructure, staff development, etc.
- ❑ **community-building and peer learning** as key to individual professional development, for teachers<sup>1</sup>, administrators, and leadership, within or across higher education disciplines, institutions, and systems. Such processes may also provide professional and emotional support, and enhance wellbeing, like during Covid-19, when teachers met online,

<sup>1</sup> For the purpose of this report, “teachers” refer to academic staff in higher education institutions with teaching responsibilities.

and exchanged teaching information and experiences, and institutional approaches. Aside from individual problem-solving, this can also be a way to achieve institutional and system transformation.

This rule of three has been confirmed and explored further in the project activities:

- ❑ The **Digitally enhanced learning and teaching in European higher education institutions** report (hereafter the “Survey Report”) gathered 368 survey responses from higher education institutions. It is the only report providing comparative data across all 48 countries in the European Higher Education Area (EHEA) and it clearly confirms that institutional strategies are key to successfully implementing DELT, along with the importance of engaging staff and students. It highlights peer learning within and across institutions as helpful for problem solving and staff development, and as a way to build community. These findings also cover Covid-19 experiences, as the data was gathered in the first half of 2020.
- ❑ The project explored institutional DELT self-assessment instruments, as a potential way to fast track a comprehensive reflection process at individual institutions, which can provide opportunities for sharing and benchmarking between HEIs. The **Developing a high-performance digital education ecosystem: institutional self-assessment instruments** report (hereafter the “Inventory Report”) reviewed 20 DELT self-assessment instruments, and explored how institutions could use them. While some recommend consulting and involving staff and students, they provide little indication of how to organise and follow up the process. Exchanges and collaboration between several institutions within one country or region could be a major opportunity for peer learning and community building, but this has yet to be explored in practice.
- ❑ A **workshop series** presented the outcomes of both reports, and institutional leaders shared their experiences of self-assessment instruments. There was significant interest in these workshops, which took place during Covid-19.

- ❑ In order to share the project results and insights, and extend the debate on institutional self-assessment processes, the project launched [Inside Digital Higher Education: Self-Assessment Guide for Educators](#), a Massive Open Online Course (MOOC) on FutureLearn.
- ❑ Six Thematic Peer-Learning Groups (TPGs) united leadership, with staff and student representatives from 60 European higher education institutions, including universities, university colleges, music and art schools and open universities. This diversity enabled reflection and learning. Learning and Teaching TPGs are an established instrument (used since 2017 by EUA,) but this was the first time they addressed DELT.
- ❑ Over several months, groups of 8-10 institutions explored particularly important and challenging issues, producing mini-reports setting out recommendations for peers. The themes addressed were:
  - [Strategy and organisational culture, Curriculum and assessment, International partnerships](#) (in 2021-2022)
  - [Digitally competent teachers, Collaborative teaching practice, and Needs and wellbeing of students and staff](#) (in 2022-2023).
- ❑ The results were presented and discussed at the European Learning and Teaching Forums held in 2022 and 2023, as well as webinars, seminars and workshops.

The project outcomes were widely shared by the consortium and its members, at various conferences, seminars and workshops, including at European and some national policy levels.

This report summarises the project outcomes, which are also available on the [website](#). It also shares observations and reflections from this three-year journey. The project coincided with the Covid-19 crisis (as it was launched in January 2020). DELT became the default method of higher education delivery, almost overnight. This provided unique opportunities for exchange and engagement throughout the different pandemic phases. Did Covid-19 enable or accelerate DELT take-up? It certainly enforced the temporary

mainstreaming of online and blended learning, and exposed teachers, administrators, and students to the possibilities of this technology. But the emergency process did not allow institutions to explore models that combine and synergise physical and digital, on- and off-campus settings.

This is a task for the present. It deserves monitoring, discussion, and perhaps dedicated follow-up.

## Foreword

This report summarises the DIGI-HE project outcomes, notable reflections and discussions, which took place in unusually turbulent times.

DIGI-HE focused on institutional approaches to digitally enhanced learning and teaching (DELT) in higher education. The first DIGI-HE consortium meeting took place in Brussels on 17 and 18 February 2020. Everyone was completely unaware digital technology would soon play such a vital role in most professional and private lives.

The next physical consortium meeting took place nearly three years later, on 24 January 2023, celebrating the end of the project. In the interim we explored the benefits and challenges, ups and downs of remote work, and online meetings.

We would like to thank our partners for their spirit of collegiate cooperation throughout many online meetings and written exchanges:

- Mark Brown, Mairéad Nic Giolla Mhichíl, Elaine Berine, Conchúr Mac Lochlainn: Dublin City University, Ireland.
- Ulf-Daniel Ehlers, Patricia Bonaudo, Tina Marie Monelyon, Nicole Geier: Baden-Württemberg Cooperative State University, Germany.
- Airina Volungevičienė, Margarita Teresevičienė, Rasa Greenspon: Vytautas Magnus University, Lithuania.
- Pieta Sikström, Salme Korkala, Juha Jalkanen, Peppi Taalas: Jyväskylä University, Finland

The Advisory Board actively supported DIGI-HE activities and events and the writing of our reports:

Sharon Flynn (Irish Universities Association), Alastair Creelman (Linnaeus University, Sweden), Sandra Kučina Softić EDEN Digital Learning Europe, (University of Zagreb), and Eva Seiler Schiedt (University of Zurich).

For their kind advice, Deirdre Hudson, Peter Baur, Leonie Bultynck at the European Commission.

Last but not least, our EUA colleagues: Thérèse Zhang, Helene Peterbauer, Gohar Hovhannisyán, Elena Cirlan, Gemma Fagan, Laura Reynders, Kevin Daly, Katerina Topalidou, Inès Mezher.

Brussels, 26 April 2023

**Alison Morrison & Michael Gaebel**

# 1 Introduction

## About the DIGI-HE project and this report

**DIGI HE** is a three-year Erasmus+ co-funded project launched in January 2020, as a partnership between the European University Association (EUA), Dublin City University (DCU, Ireland), Baden-Wuerttemberg Cooperative State University (DHBW, Germany), Vytautas Magnus University (VMU, Lithuania) and the University of Jyväskylä (JYU, Finland).

The project is designed to help universities develop strategic approaches to digitally enhanced learning and teaching (DELT) and enhance their DELT capacity. The 2018/19 project planning stage started from the following observation: The transformation and enhancement of learning and teaching has attracted considerable interest and attention in recent years, both in terms of higher education institution practice, and at institutional and systemic policy levels. This is also true for DELT. However, learning and teaching and DELT are generally discussed separately, through overlapping but different fora and communities. This suggests that the digital aspects of learning and teaching have not yet been fully mainstreamed, and are seen as a viable special case apart.

The consortium assumed this to be an obstacle to transforming learning and teaching. The project goal was therefore to explore how to overcome the disconnect and encourage and support more holistic reflection on institutional learning and teaching strategy development that includes digital aspects. From the start, the project emphasised institutional self-reflection and assessment, as necessary to transformation and development, and as a basis for inter-institutional exchanges and partnerships. It facilitated good practice sharing and peer learning between university leaders, helped build a community around these issues, and also fed into ongoing policy initiatives and discussions, in particular at European Education Area (2021-2022 Digital Education Action Plan), and European Higher Education Area (EHEA) levels.

To gain a better understanding of how best to support higher education institutions, the project [surveyed the state of digitally enhanced learning and teaching](#) in higher education institutions across Europe, and [reviewed current self-assessment instruments](#) for improving the institutional digital ecosystem. A [workshop series](#) (2021-2022) on Developing a high-performance digital education ecosystem was designed to share the results and lessons learned, and to feed into the Inside Digital Higher Education self-paced online course, which is now and will continue to be available. It also organised two Thematic Peer Group (TPG) cycles, bringing some 60 higher education institutions from across Europe together to explore particularly pressing issues (see Figure 1).

| FIRST ROUND OF TPGS  | SECOND ROUND OF TPGS  |
|--|---|
| <ul style="list-style-type: none"> <li>• Strategy and organisational culture</li> <li>• Curriculum and assessment</li> <li>• International partnerships</li> </ul> | <ul style="list-style-type: none"> <li>• Digitally competent teachers in designing quality learning environments</li> <li>• Collaborative teaching practice</li> <li>• Needs and wellbeing of students and staff</li> </ul> |

*Figure 1 Thematic Peer Group themes*

A final conference, held on 24 January 2023 in Brussels, explored the key findings and open questions. It also considered the emerging national and European policy frameworks and structures required to enable successful DELT in higher education.

All outputs are available on the [project webpage](#).

This report summarises the main results, insights and open questions and sets them in the wider context of Europe's institutions and systems.

## The impact of Covid-19

DIGI-HE activities began in January 2020, and coincided with the Covid-19 crisis. Overnight, DELT went from being an option, asset, or future strategy to a standard requirement. This affected the project, its rationale and approach in multiple ways:

Covid-19 confirmed and demonstrated the need for strategic institutional approaches: although their efforts received well-deserved media coverage, individual "teaching heroes" were simply unable to provide continued teaching in this utterly new situation. Higher education needed useful strategies and teaching centres. Teaching networks were established and enhanced. While co-creation with students was already a frequently referenced concept, this approach found its way into some institutions' practice during the pandemic. The Survey Report highlights strategy plus staff and student commitment as key DELT enablers. Of course, this is generally true of all learning and teaching. But digital technology requires extra communication, cooperation and organisation.

The Covid-19 pandemic and post-pandemic situations showcased the dilemma of when and how to develop a strategic approach in the face of immediate demands, pressing challenges, and an uncertain future. While pandemic uncertainty felt more drastic and pressing, many of the questions and challenges it raised applied in the "new normal" of 2022-2023: Apart from the threat of energy shortages, and rising costs, the Sustainable Development Goals and related economic and social changes are less immediately pressing, but require even more urgent and dramatic transformations.

Uncertainties are also caused by emerging technologies: while higher education moves towards DELT, industries define the instruments and lawmakers the rules by which society and the economy will operate. Regrettably, the project was unable to explore these important issues, partly as they were not at the forefront of the learning and teaching discussion in 2020-2022. This could rapidly change.

This report should be seen as a testament to and a reflection on DELT that took place in very unusual times. It may help some institutions reflect on their own journey through this period, in consideration of their next steps. There are few final conclusions, but some observations for the future.

## The gradual take-up of digitally enhanced learning and teaching

As early as 2013, a [study](#) showed that practically all European universities used some type of DELT – although this approach was usually limited to specific departments and courses, and generally deployed in an experimental fashion. The survey results also confirmed that the DELT experience was generally positive. Given many institutions' continued engagement with Massive Open Online Courses (MOOCs) and other emerging DELT formats, a gradual enhancement and growth in strategic approaches to DELT seemed likely. Especially as learning and teaching have gained importance in recent years, at both higher education institution and higher education systems levels, as well as through the Bologna Process, and in the European Education Area (EEA). European university alliances, and the push for micro-credentials are also expected to explore digital delivery and cooperation methods.

However, discussions on learning and teaching and DELT continued to take place separately for a number of years. This is seen at European policy level: the Digital Education Action Plan has a life and agenda of its own, and is not fully integrated into EEA education measures. Thus far, the Bologna Process has mentioned digital developments, but not provided any major contribution to the reforms or discussions.

EUA's work resulted in a range of measures, including the Annual Learning and Teaching Forum, and renowned TPGs, which since 2017, have facilitated good practice exchange between several hundred institutional leadership and university staff representatives with responsibility for strategic learning and teaching developments. However, digitalisation was rarely addressed before 2019. DELT discussions seemed confined to specialist circles, with only marginal impact on the mainstream learning and teaching enhancement discussions. This is surprising, given the pace of digital developments and growing institutional and systemic take-up.

## Self-assessment instruments as institutional DELT strategy enablers?

The consortium reflected on how best to support European higher education institutions in their efforts to develop strategic learning and teaching approaches using the opportunities of digitalisation. The Erasmus+ SELFIE call for proposals inspired a project idea: creating a SELFIE-like instrument for higher education institutions would allow leaders to map the current situation and attitudes at their institutions, and the resulting data could be used as the basis for dialogue with staff and students, feeding into new or updated strategies and action plans. It could also facilitate inter-university exchange and collaboration on this subject, in smaller benchmarking clubs, at system level and even European level exchanges. The consortium believed such instruments' key value was their ability to generate reflection, discussion and collaboration, within institutions and beyond.

However, initial work brought sobering insights: a plethora of self-assessment instruments are already available, many apparently very sophisticated and well-made. However, as the aforementioned Survey Report confirmed, these instruments achieved limited use and interest. The project adapted to the situation on the ground: instead of developing yet another instrument, it would assess existing ones, promote useful approaches and lessons learned, and use them to build a community and peer learning.

The resulting [Inventory Report](#) was promoted through webinars, a series of dedicated workshops, and the TPGs, bringing institutional leadership from across Europe together to exchange experiences.

While Covid-19 made improving DELT even more urgent and strategic, institutions were under pressure to move teaching and all other activities (including management and administration) online for an uncertain period, and clearly had other priorities than reflecting on long-term strategies. When health restrictions eased, the pandemic's economic aftermath plus the war in Ukraine produced a situation not particularly conducive to institutional transformation strategies. In autumn 2022, some institutions were forced to partially close campuses in order to save energy.

The project journey reflects the DELT experiences of many actors, at both institutional and system levels: appealing, straightforward technical solutions and approaches don't actually fully match social realities and sector needs. The resulting frustration should not prevent learning: a negative result is still a result, and deserves consideration. This report covers that story as well as the project's many positive results and insights.

## 2 Results of the Survey Report “Digitally enhanced learning and teaching in European higher education institutions”

368

institutional responses from 48 countries gathered from April to June 2020

A survey on digitally enhanced learning and teaching (DELT)<sup>2</sup> was conducted between April and June 2020 to generate evidence. Responses were received from 368 higher education institutions in all of the then 48 countries of the EHEA. The survey enquired about the state of play, institutions’ experiences and expectations before Covid-19, and their initial pandemic responses. The results were published in the Survey Report in January 2021.

### Mainstreaming and maturity

The first 2014 EUA [e-learning](#) study showed DELT was being used at most universities, albeit in a very patchy fashion. Pre Covid-19 figures confirmed that mainstreaming and maturity had advanced considerably by 2020: on average, 57% of the respondents stated DELT was widely used throughout their institution, with rates generally much higher in northern and western Europe, and lower in southern, and particularly eastern Europe (Gaebel et al., 2021).

Moving from early adaptation to fully-mainstreamed institution-wide use can be a long, and complex process, also as collegiate governance approaches and the diversity of needs inherent in an institution prevent top-down implementation. Validating new teaching approaches in institutional practice requires time, in order to avoid risks (Gaebel, M. and Zhang, T., 2018). [The Trends 2018 report](#) notes that “problem-based learning”, which a few years ago raised controversies among teachers, has become largely uncontested, whereas the more recent “flipped classroom” approach still meets some scepticism.

<sup>2</sup> The Survey Report glossary defines “digitally enhanced learning and teaching” as any type of learning or teaching accompanied or supported by technology.

### Strategy and governance

In terms of governance, services and support for DELT, the survey results suggest a shift from the faculty and department level implementation seen in 2014 towards more institution-wide approaches, often shared between the central level and faculty.

In 2020, almost 80% of institutions had implemented an institutional strategy and confirmed its crucial importance for enhancing DELT approaches. But over a third admitted devising a concerted institution-wide approach was a major challenge. Most saw the lack of staff resources as the biggest problem, with three quarters’ agreeing that proactive staff and student participation is the number one DELT enabler at their institution.

### Different forms of DELT provision

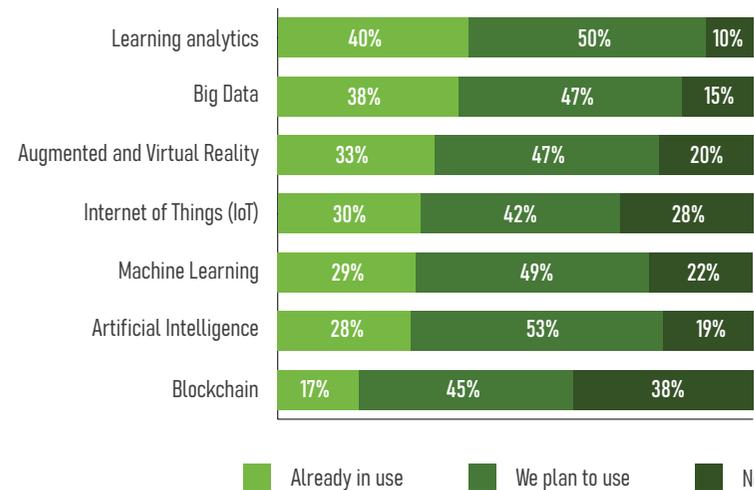
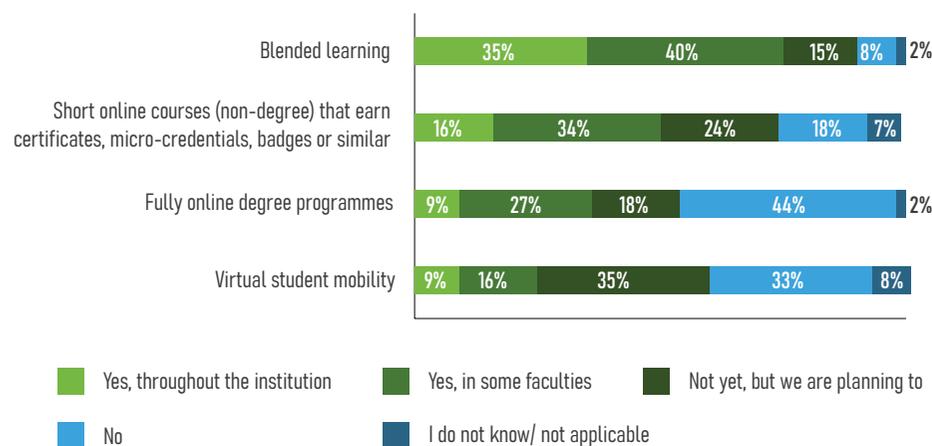


Figure 2 Survey on digitally enhanced learning and teaching in European higher education institutions (2020); Q39: Which of the following technologies do you see as a development priority? n=340

There was no major change regarding the number of institutions using blended learning (between 2014 and 2020). This was still the most common approach used, at 75% of European higher education institutions, and in online degree courses (36%). No comparative data on virtual mobility was available, as the earlier report did not pose these questions: in 2020 a quarter of the institutions offered virtual mobility, and another 35% planned to do so. There were also new questions on micro-credentials (50%), which turned out to be the most popular online-only option (above MOOCs and online degree programmes), with most institutions offering up to ten courses.

### Openness to emerging technologies



**Figure 3** Survey on digitally enhanced learning and teaching in European higher education institutions (2020); Q19: Does your institution offer the following delivery modes? n=363

The survey also suggests universities are exploring and gradually adopting new approaches and technologies, such as Learning Analytics, Blockchain and Artificial Intelligence, confirming their overall openness to tech innovation.

### Digital skills

Students' and staff's digital skills are both still high up the agenda. Most institutions address general and sector-specific digital, ethical, data literacy and data safety skills in their courses. These subjects are sometimes

compulsory and integrated into curricula and programmes, but more often optional, or included in specific study programmes.

### Expanding access

Digital provision now seems less experimental, more targeted, and more purpose-driven than in 2014, in particular in terms of extending access and lifelong learning. In 2020, adult and mature students were the main target for online learning (at 65% of institutions) and an impressive 81% are now considering expanding access through digitalisation as a strategic development priority.

### Challenges, capacity building needs, and enabling factors

Many institutions declared a shortage of human resources and financial capacities to purchase and maintain technologies. As in the 2014 report, while a relatively high number of institutions reported having digital infrastructure and resources, these were found to be insufficient to cope with increased demand during the Covid-19 pandemic. For example, although 90% of the respondents reported having readily available online library services, 65% of these indicated that they had concrete plans to enhance such services in response to pandemic experiences. Most institutions also feel the need to enhance and update existing DELT policies and safety measures, and for digital resource use more generally. These comments were echoed at the project events, where participants highlighted their concerns about the economic, safety and cultural implications of ed tech, and insufficient regulatory frameworks.

While most institutions see strategy, staff and student participation, and funding, as enabling factors, (and therefore obviously the absence of these as an obstacle), interestingly, only about 10% see external regulation as a key problem. Survey responses suggest institutions are avoiding and mitigating the risks arising out of the prevailing legal and technological restrictions and uncertainties. To overcome these, policy and regulatory frameworks, and funding that supports, encourages and inspires (rather than simply restricts) could be a major boost for DELT innovation and transformation.

## The pandemic: a one-off, or a transformation opportunity?

The survey findings offer a unique perspective on the state of DELT in European higher education institutions before the pandemic. But what are institutions, staff and students' DELT needs in 2023? More data collection is needed to answer this question.

- DIGI-HE Advisory Board Member

While the Covid-19 pandemic led to a dramatic and unprecedented increase in digital uptake at Europe's higher education institutions, we still do not know if this development will continue. The survey findings confirm that three quarters of respondents had concrete plans to boost digital capacity going forward.

A 2021 survey of National Rectors' Conferences<sup>3</sup> confirmed a number of general changes, for example, substituting travel for remote work, and specific learning and teaching updates, such as blended learning,

and hybrid student services. Interestingly, hybrid learning: allowing students to decide whether to attend courses in person or online, was seen as the least likely development.

However, most institutions may not have encountered the right starting point and conditions for major digital capacity development. The gradual end to the pandemic, coincided with new geopolitical and economic crises. Russia's war on Ukraine, and the resulting energy crisis and inflation may have played out in favour of a return to fully on-campus education.

There is now anecdotal evidence of the pendulum swinging back the other way, with institutions, often pressured by staff and students, revisiting the value of more flexible, DELT.

## The future of DELT: enablers and obstacles

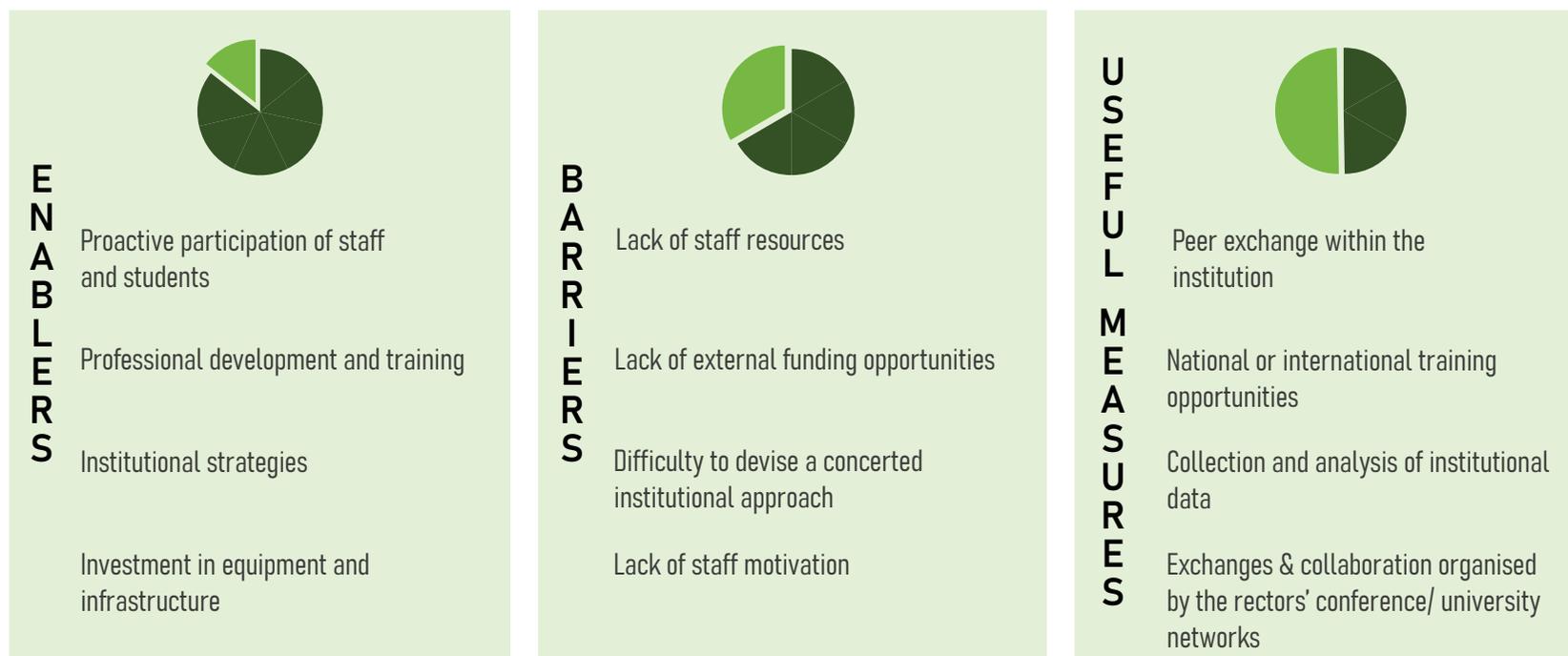
The Survey Report confirmed a strong demand for institutional capacity building, participatory approaches involving staff and students and external support, in the forms of funding and national measures. Perhaps the biggest takeaway from the survey was synergies between the main enablers and obstacles to digitalisation. Put simply, it is vital to invest in adequate resources and devise a robust digitalisation strategy, however DELT will only be fully achieved with sufficient student and staff buy-in and their proactive participation. This should facilitate an institution-wide approach with a degree of subsidiarity, for example to accommodate the needs of specific disciplines while preserving the openness needed to continue experimenting and innovating.

This key finding was also underlined by the TPGs and is therefore a clear message for institutional leadership and national policy makers across the EHEA.

The success of institutional digital transformation in all areas also depends on external conditions: the regulations and external quality assurance requirements pose problems in some higher education systems. In most sectors, institutions sense that new approaches will require some revision of the rules and regulations concerning staff careers, student status, and funding. Europe's predominantly publicly funded higher education sectors have to find working arrangements with private for-profit ed-tech partners that do not compromise their values and safety. Technology lock-in, which holds financial, but also quality and safety risks, arouses considerable concern.

<sup>3</sup> Survey conducted by EUA in July 2020.

## MAIN ENABLERS, BARRIERS AND USEFUL MEASURES



**Figure 4** Survey on digitally enhanced learning and teaching in European higher education institutions (2020); Q13: What are the top 3 enablers of digitally enhanced learning and teaching at your institution?; Q14: What are the top 3 barriers to digitally enhanced learning and teaching at your institution?; Q35: What measures have been useful for improving digitally enhanced learning and teaching at your institution? N=368

### 3 Enabling the transition to strategic, mainstreamed DELT

The project decided to focus on **institutional self-assessment**, as this would enable institutions to map current knowledge and practices on DELT, identify the needs and opportunities for development, facilitate communication with all internal and external stakeholders, all of which would require, but also enable **peer learning and community-building**.

That these three approaches could complement and build on each other was confirmed through the project activities, review of the literature and the consortium members' own experience. More specifically, the Survey Report and Inventory Report findings confirmed peer learning is the most useful way to improve DELT in European higher education institutions. The project addressed self-assessment by examining self-assessment instruments in a series of workshops (3.1), and organised pan-European Thematic Peer Groups (TPGs) to facilitate peer learning and community, which also connected the project to other European learning and teaching community initiatives, such as the annual European Learning and Teaching Forum (3.2).

#### 3.1 Self-assessment and self-assessment instruments: enhancing strategic approaches to DELT

As the recommendations and findings of the Survey Report show, higher education institutions need adequate strategies and tools to be able to plan the development and mainstreaming of DELT: DELT requires considerable investment and change across the entire institution. These range from technology use and building modifications to curricula and teaching reorganisation, not to mention the impact on staff tasks and profiles, working schedules and methods. It can also represent some risks regarding costs, maintenance, interoperability, resources and skills needed. Therefore, developing a consensus about the added value across the institution, establishing trust and support structures are crucial. Institutional leaders may wish to assess their institution's present practices and needs, which can be very diverse, and consult their members before starting to mainstream DELT.

While self-assessment can involve different formats and processes, the core questions and features are presumed to be very similar at all institutions. The project asked whether self-assessment instruments could provide a more systematic and efficient way to support institutional strategy development, and stimulate interinstitutional exchange, benchmarking, peer learning and community building.

Initial desk research found a relatively high number of self-assessment instruments, but limited evidence of their prolific or successful use. The project consortium therefore decided to:

- Analyse these instruments and share information and advice about how to use them with the wider higher education sector.
- Develop complementary approaches to promote institutional self-assessment of DELT, through [Developing a high-performance digital education ecosystem](#), a series of three workshops on self-assessment held between October 2021 and November 2022.
- Construct and implement a self-paced MOOC to guide institutional self-assessment processes, which launched in January 2023.

| DEVELOPING A HIGH-PERFORMANCE DIGITAL EDUCATION ECOSYSTEM: THREE-PART WORKSHOP SERIES |   |   |
|---|---|---|
| Workshop 1<br><b>Strategy and organisational culture</b><br>19 October 2021           | Workshop 2<br><b>Institutional self-assessment</b><br>24 May 2022 | Workshop 3<br><b>Assessment of institutional approaches and ambitions beyond the pandemic</b><br>14 November 2022 |

*Figure 5 Three-part workshop series promoting self-assessment instruments*

### What are self-assessment instruments and how do they help evaluate DELT?

The consortium gathered and reviewed 23 DELT self-assessment instruments through desk research from February to April 2020. The 20 most relevant tools were included in the Inventory Report, along with a description of their main features, and an analysis of their advantages and shortcomings. The Inventory Report defined a self-assessment instrument as a tool or framework that allows institutions to assess their DELT status. The Inventory Report also provides institutions with some guidance on how to choose and use these instruments.

The instruments included come from different countries and continents, and are all in English, although inventory reports may exist in different languages. Their developers include a few for-profit organisations, but most were developed by non-profits, including project partnerships, national education agencies, and the European Commission.

All 20 instruments intend to support DELT development, although they use different ways to do so. Some offer a scale to measure the state of development and collect responses from different internal (and occasionally external) stakeholders. Others resemble frameworks, mainly designed to set standards or benchmarks, and provide guidance. However, most fulfil both functions (see Figure 6).

While all the instruments reviewed enable internal self-assessment, just under half combine this with an external review.

| Tool only                 | Framework only  | Combination of tool and framework  |
|---------------------------|---|--|
| SELFIE                    | DigCompOrg  | DigCompEdu   |
| Leibniz Benchmarking Tool | JISC- Digitally Capable Organisation                  | JISC (tools available on project website as a commercial service)                        |
| HEInnovate                | QQI Blended Learning Guidelines                       | UNESCO Blended Learning Assessment Tool  |
|                           | European Maturity Model for Blended Education (EMBED) | E-xcellence: Quality Assessment for E-learning: a Benchmarking Approach                  |
|                           | ENQA: Quality Assurance of E-learning Provision       | OLC Quality Scorecard Suite  |
|                           | National Quality Standards for Online Education (NSQ) | Technology Enhanced Learning Accreditation Standards (TELAS)                             |
|                           | 3E Framework  | ACODE TEL Benchmarks   |
|                           |   | Quality Matters (tool is fee-paying but there is an accessible version of the framework) |
|                           |   | Commonwealth of Learning (CoL) Benchmarking Toolkit for Technology-Enabled Learning      |
|                           |   | HolonIQ Digital Capability Framework   |

*Figure 6* List of self-assessment instruments featured in the *Developing a high-performance digital education ecosystem: institutional self-assessment instruments inventory report*

The instruments cover a wide range of key, significantly overlapping, themes. The most common were:

- ❑ policy and governance
- ❑ financing and funding
- ❑ IT infrastructure
- ❑ course, programme and curriculum design, including assessment practices
- ❑ professional development, digital skills and staff support
- ❑ student training, development and support
- ❑ accessibility and usability of DELT resources and environments
- ❑ collaboration and networking
- ❑ research and innovation
- ❑ quality management
- ❑ impact measurement

Most instruments address DELT in some depth, and cover different forms and approaches for education delivery and approaches in a variety of contexts and settings. But some focus on specific delivery methods, for example blended learning.

### Why use a self-assessment instrument to evaluate DELT?

The DIGI-HE consortium concluded that self-assessment instruments can be useful for gathering evidence, sharing lessons learned, identifying challenges and opportunities, facilitating structured conversations on how to reframe institutional strategies as well as benchmarking results within and among institutions to stimulate discussion and change.

Discussions with workshop participants also highlighted that the self-assessment process can motivate and boost staff participation and

engagement in DELT development. The structured process of using a self-assessment instrument and sharing a common goal can unite various strands of the university community who may not often meet, such as leadership, QA professionals, teaching, support and administrative staff, the international office, students and alumni. It could raise staff and student awareness and give them a role and the space to openly reflect on achievements and the challenges of existing approaches and structures, as well as training needs. Commitments and contributions must be encouraged, enabled and properly recognised, including in terms of resource and working time allocations.

The benefits of follow-up external assessment were also discussed. Some instruments offer this feature (in return for payment), but institutions could also arrange their own. External assessment is an extra layer and effort, but it can provide a useful outside perspective. It also makes the process more visible and adds recognition. External assistance in establishing recommendations and a follow-up roadmap were also considered helpful.

Self-assessment and findings reporting allows an institution to credibly take stock of its current DELT status using a structured approach. The results identify valid practice and contribute to enhancement and mainstreaming, and may also reveal previously unrecognised challenges faced by students and staff. This process helps clarify the direction an institution wishes to go and crystallises and promotes key messages to the members of the institution and its wider community.

### Self-assessment: part of or separate to quality assurance?

There is no simple answer to the question of whether DELT self-assessment should be included in quality assurance (QA). Alignment with the institution's QA process can give DELT self-assessment added status, weight and credibility, while also providing valuable QA data. DELT should also be seen as an integral part of the institutions' learning and teaching approach, which should undergo QA. The Survey Report found that every second higher education institution includes DELT in its QA processes. This is a major increase from 2014, but nevertheless has room for improvement. Including DELT self-assessment as part of the internal QA process can save time and resources. Use of established internal QA services and structures could help ensure results are considered and followed up. If two parallel QA and DELT self-assessment processes are maintained, they may overlap without interacting, potentially leading confusion.

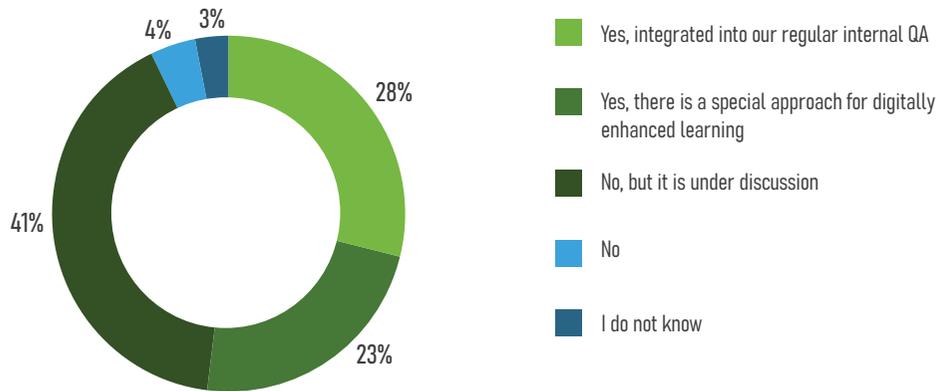


Figure 7 Survey on digitally enhanced learning and teaching in European higher education institutions (2020); Q12: Is digitally enhanced learning included in your institution's internal quality assurance process N=366

On the other hand, the decision to undertake self-assessment may also depend on whether the institution's internal and external QA processes are sufficiently flexible to include self-assessment. A separate, fit-for-purpose self-assessment exercise could provide the opportunity to ask and discuss questions around change and innovation outside the formal QA process. This could allow more open approaches and more candid exchanges. In this context, institution-wide DELT assessment may be more challenging at institutions that conduct programme-level reviews or audits, but could provide real added value.

Whatever the chosen approach, it is important to address and clarify whether and how DELT self-assessment ties in with QA and other review processes in advance, in order to ensure the best possible synergies and interactions, and avoid ambiguities, unintended interference and confusion.

### Limited uptake of self-assessment instruments

Despite the abundance of DELT self-assessment instruments, to date awareness and uptake of these tools seems limited. The Survey Report revealed only 12% of Europe's higher education institutions had used a self-assessment instrument (see Figure 8). A similar trend was also observed in the TPGs and the self-assessment workshop series: less than 20% of the participants said their institution had used a self-assessment instrument. Participants confirmed principal interest in self-assessment instruments, but little will for further exploration.

This limited uptake could be for various reasons. Some relate to the shortcomings of the instruments themselves, others to the nature of the exercise.

### The right match

Institutions may find it difficult to identify an instrument that matches its needs and preferences, in terms of thematic focus, methodology and terminology. Workshop participants also noted that some instruments are too generic and do not cover university-specific themes. They discussed shortcomings such as a lack of openness and adaptability of the instruments, insufficient consideration of the resources needed, the choice of education technologies, and missing themes, such as equity, diversity and inclusion, and environment.

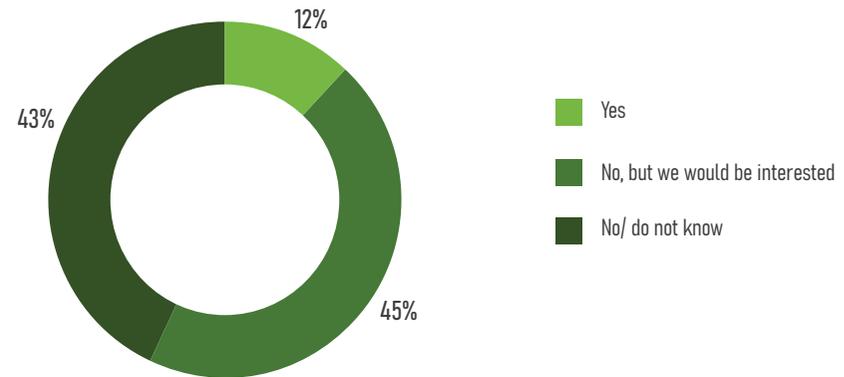


Figure 8 Survey on digitally enhanced learning and teaching in European higher education institutions (2020); Q17: Has your institution used any digitalisation self-assessment and/or benchmarking tools? N=367

The Inventory Report recommended a dialogical, “pick and mix” approach, as more productive and useful for supporting critical self-assessments that lead to real and transformative change. However, this approach is obviously more labour-intensive, which undermines the advantage of a standard instrument. Choosing one instrument and reusing the same one also makes it easier to monitor progress in future.

## SELECTING THE RIGHT INSTRUMENT

- ❑ What do you want to achieve?
- ❑ Do the key themes correspond to your needs?
- ❑ Is the instrument specifically designed for this purpose?
- ❑ Do you want personalised feedback or a score?
- ❑ Do you wish to carry out an internal or external review, or a combination of both? Does the instrument align with the review requirements?
- ❑ Who does it involve? Is it leadership only, or major parts of the institution?
- ❑ Is it feasible to use this instrument in your institution in terms of time and staff required?
- ❑ Is the instrument available in your language and applicable to your national or regional context? Is there a paywall?
- ❑ Can it be adapted? Could you use a combination of instruments?

*Figure 9 "Selecting the right instrument" - presentation from the workshop series on institutional self-assessment*

### Insufficient follow-up guidance, and a lack of user communities

Most instruments provide some instructions and guidelines. However, the Inventory Report identified their failure to provide much support on how to follow up results as a serious drawback. While the follow-up process must be developed and implemented by the institution, an action plan template could, for example, help. Active user communities could also make using these instruments more rewarding. However, given the variety and relatively low uptake of instruments, establishing them may not be easy. Unless an institution finds one or several partner institutions and convinces them to use the same instrument, it may be difficult to share or even benchmark experiences. The more commercial instruments offer a wider range of support, including training workshops, and follow-up services such as implementation support, in exchange for a fee.

### Associated costs and work

While most instruments analysed were free of charge, self-assessment is not necessarily cost neutral. In addition to their own resources and costs, institutions may cover costs for external peers and partners, or professional reviewers to enable impartial assessment, or take part in focus groups and discussions.

Instruments may also appear overly demanding. The potential benefits may not be sufficiently clear in view of the time and resources required. Workshop participants confirmed that self-assessment is time-consuming, and requires in-depth reflection and discussion, lasting on average up to six months. The same is true for the follow-up of self-assessment results, which may take several months, or years. One institution shared its case which involved a team of twenty evaluators - a substantial human resources investment.

### Not the right time

Most of the project initiatives took place from 2020-2022, while institutions were under significant pressure to devise ad-hoc Covid-19 measures. Following the pandemic, long-term DELT strategies that embrace innovation and ensure sustainability are commonly acknowledged as the way forward. However, 2022 was another very uncertain year, and institutions now face rising inflation and energy costs, plus the war in Ukraine. Many are also experiencing a degree of digital fatigue, with most staff and students happy to be back on campus. But a shift towards approaches that combine the advantages of digital and physical teaching and learning could be a matter of time.

In conclusion, institutions need to work out why they want to carry out DELT self-assessment before choosing their instrument. As this is a voluntary process, external incentives and guidance could be helpful, and would also allow institutions to exchange and work with others in a similar situation.

### A self-learning course on strategy development

#### INSIDE DIGITAL HIGHER EDUCATION MOOC

- Developed by DCU
- Launched in January 2023
- Available on FutureLearn Platform
- Two-week course

**A MOOC** - Inside Digital Higher Education: Self-Assessment Guide for Educators - developed by the DIGI-HE consortium, led by DCU, highlighted many issues raised throughout the project and reused major project outputs. The course prompted participants to share and learn from each other's experiences and case studies.

Figure 10 Description of the Inside Digital Higher Education MOOC

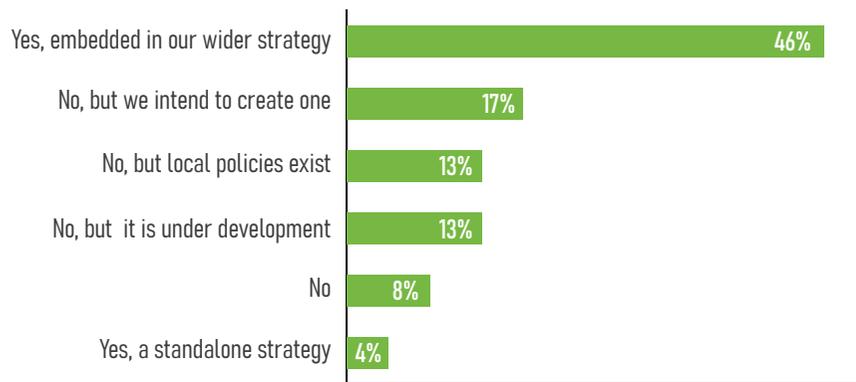


Figure 11 Poll from the Looking Inside Digital Higher Education MOOC: "Does your institution have a strategy for the digitalisation of learning and teaching?" n= 30

The course launched in January 2023. Although the number of participants has been relatively low thus far, those who did the MOOC were very engaged. Figure 11 shows most participants reported that their institution had an embedded DELT strategy, although almost half indicated that they were unaware of one:

Participants were generally reflective about the challenges institutions face in responding to internal and external changes, including the Covid-19 pandemic. The following participant's note, is a useful summary of these findings:

"I think many institutions will be playing catch up for a few years. We had no choice but to embrace digital education over the pandemic and we experienced the benefits. There's definitely a willingness there now to continue embedding learning technologies and not to return completely to pre-pandemic practices entirely. So, now organisations have to put the appropriate governance structures and resources in place to support and quality-assure this change, as it's happening. Interesting times."

### Conclusions and key messages on self-assessment

Higher education institutions have to respond proactively to changing demands and conditions, whether these concern DELT or other issues. As there is no single blueprint solution, self-assessment is necessary to explore the state of play, and future needs. It allows institutions to join the dots between the different parts of the digital ecosystem and provide DELT in a more systematic, mainstreamed manner, aligned with strategy, goals and action plans, and hence ensures sustainability.

#### HOW TO USE INSTRUMENTS IN YOUR INSTITUTION?

- Consult instructions or manual if available, contact the provider
- Exchange with someone who has already used the instrument
- Thoroughly plan and promote the exercise
  - Who do you wish to involve? Who has to know about it? Who can/should contribute?
  - Building a community can be highly effective
  - How does it align with other initiatives and processes?
  - Decide who should own the self-assessment process within your institution
  - What are the potential benefits and challenges?
  - Think and agree on what to do with the results. How to follow-up? How can this support institutional change? How to share this within and beyond the institution?

Figure 12 "How to use instruments in your institution" - presentation from workshop series promoting self-assessment instruments

There is clearly an interest in self-assessment, and self-assessment instruments. But how to make this a more common measure if it is not rooted in the institutional culture or supported by external incentives or pressures?

- DIGI-HE Advisory Board members

Self-assessment outcomes can contribute to a shared understanding of what DELT means and represents: ensuring a better education, improving, student learning outcomes and their overall learning experience, their employment prospects and careers.

The workshop series revealed that self-assessment needs to be embedded in organisational culture. As observed by the TPGs, these cultural changes can be a long, often complicated process.

To date, DELT self-assessment instruments are not widely used. Poor quality is unlikely to be the reason for this. During the workshops, some institutions confirmed that, despite their shortcomings, self-assessment instruments may provide useful support. Institutions can also create their own approaches, combining surveys, focus groups, SWOT analyses and mapping exercises – which however could be time- and resource intensive.

Self-assessment can be combined with other powerful ways of improving DELT, such as national and international peer review and peer learning, and community development. The future of self-assessment may lie in university networks jointly carrying out this task and learning from each other. This could be particularly useful in countries where digital expertise and capacity is underdeveloped.

### 3.2 Peer learning and community building

Since 2017, EUA has organised TPGs to enable interinstitutional exchange and peer learning on developments in learning and teaching: TPGs allow

institutional leaders to meet and discuss challenges, practices and the lessons learned organising and implementing learning and teaching. The groups are designed to strengthen a bottom-up approach to engage European universities, and foster communities. Each TPG works at its own pace over the course of a year, is chaired by a group member, and supported by coordinators, who are usually from EUA, but in the 2021-23 period came from the DIGI-HE consortium. This was the first time that the TPGs focussed on DELT. The project used the TPGs to explore the results of the Survey and the Inventory Report, enable peer learning and build communities.

#### EUA'S THEMATIC PEER GROUPS ON LEARNING AND TEACHING

- A call for applications to work on 3-4 different topics was sent to institutions in 2017
- Each TPG includes representatives from 8-10 institutions in different countries
- Members must be institutional leaders with responsibility for learning and teaching (vice-rectors, directors of learning and teaching centres, etc.)
- Student and other staff participation is encouraged
- February to December: TPG meetings
- Outcomes are presented at the European Learning & Teaching Forum

Before the pandemic, EUA TPGs met in person on three to four occasions a year, with each meeting lasting one to two days. During Covid-19, almost all these meetings were held virtually, more frequently and for shorter periods of time. The year's activities included a kick-off meeting, a mid-term meeting, and final workshop, which brought everybody together, and enabled group discussions.

Each TPG drafted a summary report, including good practice and recommendations for immediate use by other institutions, and of interest to the wider sector, including policy makers. They are available on the [project webpage](#).

## DESCRIPTION OF TPG PARTICIPANTS



60  
Higher education  
institutions



80+  
participants

mainly rectors, vice-rectors,  
deans, associate deans and  
directors of learning and  
teaching centres



24  
European  
countries

The TPGs support continuous professional development, as participants learn from each other, can seek advice, and develop joint solutions. Because these groups are for institutional leaders, they also encourage and support change. EUA TPGs cherish diversity, and the participants are from different types of higher education institutions, and systems. Through their interactions with other initiatives, notably the [annual European Learning and Teaching Forum](#), they also build communities. An [evaluation report](#) confirms anecdotal evidence that many of the participants continue their exchanges after these meetings, and sometimes also undertake joint projects.

In 2020-21 and 2022-23, six TPGs brought together 60 institutions with a wide range of institutional profiles from 24 European countries. This included universities, but also specialised universities, university colleges, arts- and music-schools, and open universities.

The following sections outline some of the key TPG findings. The considerations and recommendations reflect the views and experiences of the groups and their members, rather than those of the DIGI-HE project.

## Key findings from the first round of TPGs (2021-2022)

The themes of the first round of DIGI-HE TPGs were chosen based on findings of the Survey Report, in the light of the most urgent topics arising out of the enforced switch to online provision during the pandemic:

- Strategy and organisational culture
- Curriculum and assessment
- International partnerships

Strategy and organisational culture

At the start of the pandemic, institutions with a digitalisation strategy (including recent strategies) that nurtured communication and collaboration on DELT across (and beyond) their institution, had a clear advantage. Strategy was identified as a key enabler by 43% of the survey respondents (and its implementation as a challenge by 36%), a figure topped only by staff development and proactive staff and student engagement.

## KEY FINDINGS – STRATEGY AND ORGANISATIONAL CULTURE TPG

- It is crucial to have a vision of what institutions want to achieve from DELT.
- A solid strategy is needed to ensure the uptake of DELT throughout the institution.
- Institutional self-assessment can play a key role in identifying DELT gaps and strategic priorities.
- The entire university community should be included in the process of DELT strategy development and self-assessment.
- An ethos of collaboration and partnership is essential to drive institutional change and ensure the successful and sustainable implementation of the DELT strategy throughout the institution.

The members of the [Strategy and organisational culture](#) TPG agreed that it is crucial to have a vision of what institutions want to achieve from DELT, accompanied by a solid strategy. This emphasised the need to answer the following “Why?” questions:

1. Why is DELT important for the institution?
2. Where does it fit in the institution's vision?
3. What are the underlying goal drivers? How do these drivers align with the institutional mission and goals?
4. Where does the institution want to end up?
5. What is the end goal?

Institutional self-assessment can play a critical role in answering these questions and defining the institution's DELT vision as well as the key elements of its strategy. The TPG members recommended institutions to undertake an audit or self-assessment of their current DELT situation, to identify any gaps and then to set the strategic development priorities for the next five years.

An ethos of collaboration and partnership is essential to drive institutional change and ensure the successful and sustainable implementation of the strategy across the institution. Teachers, students and stakeholders need to be involved in the process and the impact on the community needs to be considered. The process of DELT strategy development is therefore crucial. The group members' experience has shown that top-down strategies fail, underlining the importance of engaging the entire educational community in the process, including students, teachers and the wider stakeholder community. Such collaboration gives everyone a better understanding of the extent to which new innovative DELT approaches are realistic, allows them to share good practices, and identify the support and resources teaching staff and students need.

## STRATEGY AND ORGANISATIONAL CULTURE

|   |  |
|---|--|
| Politehnica University of Timisoara, Romania            | Mondragon University, Spain  |
| Charles University, Czech Republic                      | HES-SO University of Applied Sciences and Arts Western Switzerland, Switzerland        |
| FernUniversität in Hagen, Germany                       | Sabancı University, Turkey   |
| University of Iceland, Iceland                          | University of Saint Andrews, United Kingdom  |
| Università degli studi di Modena e Reggio Emilia, Italy | Coordinators: Helene Peterbauer (EUA) and Mark Brown (Dublin City University, Ireland) |
| University of Turin, Italy                              |  |

*Figure 13 Strategy and organisational culture TPG members*

## Curriculum and assessment

DELTA has been around for some time, but not fully mainstreamed. The survey results revealed that, on the eve of the pandemic, only about half of European higher education institutions appeared to have embedded DELT in their curricula. Despite the rise of digital assessment at most institutions, and the fact that over two thirds of survey respondents had a specific DELT policy, most felt it needed improvement.

The members of the [Curriculum and assessment](#) TPG discussed the importance of coordinating effective institutional strategies to embed DELT into the curriculum across the institution, and of defining what is expected from teachers. While the pandemic opened opportunities to embrace DELT, it also created areas where more or better-defined institutional strategies are needed, to balance on-site, online and hybrid learning, define “flexibility”, and the use of digital platforms. This again underlined the importance of self-assessment, and stressed the need to evaluate lessons learned from the pandemic using evidence obtained by conducting an institution-wide evaluation of what does and does not work including feedback from teachers, students and support services.

### KEY FINDINGS – CURRICULUM AND ASSESSMENT TPG

- ❑ Effective institutional strategies coordinated across the institution are needed to embed DELT into the curriculum.
- ❑ The lessons learned from embracing DELT during the pandemic need to be assessed in an evidence-based manner, by conducting institution-wide evaluations of what does and does not work.
- ❑ Teachers need support so that they can acquire the skills required to include DELT in their lessons.
- ❑ Higher education institutions need to formally recognise the people who work on teaching innovation.
- ❑ Assessment forms an integral part of the curriculum and reflection on ways to embrace digital assessment should take place at the beginning of curriculum design.

Group members agreed that higher education institutions need to support and empower teachers so that they can use, experiment with and innovate in DELT. Teachers need support to overcome unease and reluctance to engage with useful digital tools, so that they can become familiar with digital pedagogies and the tools that support them, and gain agency by building DELT skills.

The group members underlined the importance of institutional recognition and rewards for teachers' dedication to teaching and innovation, and celebrating individual and collective achievements. It would be beneficial if institutions supported the teachers leading the process of bringing DELT into the curriculum and built a sense of their community, which could be expanded to achieve a critical mass across the institution, through communities of practice, peer advice and cross-faculty exchange.

The group members agreed that student assessment is an integral part of the curriculum, and felt that digital assessment should be considered from the outset when designing the curriculum.

Both teachers' and students' assessment literacy should also be improved, to ensure that they fully grasp what assessment requires, and include these skills in their learning. The group invited institutions to analyse

the advantages and disadvantages of digital approaches to assessment. This process should include reflecting on how digital tools can increase inclusivity and fairness, to allow institutions to build assessment strategies that can accommodate different learning needs, and consider ethics and academic integrity in the context of digital summative assessments.

### CURRICULUM AND ASSESSMENT

|  |   |
|--|---|
| University of Cardiff, United Kingdom    | University of Barcelona, Spain  |
| University of Côte-d'Azur, France        | Universidad Nacional de Educación a Distancia, Spain  |
| Democritus University of Thrace, Greece  | Koç University, Turkey  |
| University of Bologna, Italy             | National University of Kyiv-Mohyla Academy, Ukraine   |
| Karaganda Medical University, Kazakhstan | Coordinators: Thérèse Zhang (EUA) and Ulf-Daniel Ehlers (Baden-Württemberg Cooperative State University, Germany) |
| University of Minho, Portugal            |   |

Figure 14 Curriculum and assessment TPG members

### International partnerships

In early 2020, one of the first tangible impacts of the pandemic on higher education was the end of physical mobility. International exchanges and collaboration were postponed and eventually carried out online, producing hitherto unrecognised opportunities. The Survey Report revealed some, often very recent, experiences of virtual mobility and collaboration, and high expectations of the role of digitalisation in future international partnerships. Focusing on the key role digital technologies play in facilitating international partnerships, the [International partnerships](#) TPG cited the lack of interoperability between learning management systems (LMS) and in some cases national bans on particular learning platforms, as a key concern. Although there is no magic solution, the group members recommended institutions to identify digital technologies and platforms

that allow interoperability at the start of any new partnership activity, to ensure the smoothest possible experience.

#### KEY FINDINGS – INTERNATIONAL PARTNERSHIPS TPG

- It is important to identify digital technologies and platforms that allow interoperability at the beginning of any new international partnership.
- Institutions need to choose digital technologies and platforms that comply with GDPR and the equivalent national legislation and ensure that all partners are aware of the importance of data protection issues.
- Developing the skills needed for virtual education in international settings needs to be embedded in institutional policies and included in staff development schemes.

The importance of protecting student and staff data when engaging in international partnerships, for example, in global classroom projects and Collaborative Online International Learning (COIL) activities, was also discussed. The group recommended only using digital technologies and platforms that ensure adequate user data protection by complying with the EU General Data Protection Regulation (GDPR) and equivalent national legislation. Moreover, the group flagged the need to ensure data protection and privacy issues are commonly understood by all partners through awareness raising and training.

Communication with the ed tech industry could benefit higher education institutions on their path to digitally enhanced internationalisation, especially by shaping platforms' operational procedures and practices, potentially through a council, expert group, advisory group or similar structure.

Providing virtual teaching in international settings requires additional digital, pedagogical, language and intercultural skills. The group members recommended institutions to develop a policy for formal recognition of teachers' digital skills and to include teaching skills and experience in a virtual international environment in career pathways and tenure tracks. They also advised institutions to ensure that staff development schemes

include digital skills for teaching in a virtual international environment and to encourage and reward participation in such staff development schemes.

The group concluded by recommending institutions to prioritise the development of students' digital and intercultural skills and include these subjects in curricula and study programmes.

#### INTERNATIONAL PARTNERSHIPS

|  |  |
|--|--|
| Universitat Oberta de Catalunya, Spain   | University of Deusto, Spain  |
| Medical University, Plovdiv, Bulgaria    | University of Lausanne, Switzerland  |
| Tampere University, Finland              | Izmir University of Economics, Turkey  |
| Leuphana University of Lüneburg, Germany | University of Exeter, United Kingdom   |
| University of Foggia, Italy              | Coordinators: Alison Morrisroe (EUA) and Pieta Sikström (University of Jyväskylä, Finland) |
| Adam Mickiewicz University, Poland       |  |

Figure 15 International partnerships TPG members

#### Second Round of TPGs (2022–2023)

Burning issues from the previous round of TPGs resulted in the themes for this second round:

- Digitally competent teachers
- Collaborative teaching practice
- Needs and wellbeing of students and staff

These meetings took place between March 2022 and February 2023, and the results were presented at the [2023 European Learning and Teaching Forum](#) in Bilbao, Spain.

**Digitally competent teachers**

The three TPGs of the first round, noted that teaching staff’s digital skills, or lack thereof, is a key barrier to DELT. The **Digitally competent teachers** TPG agreed that digital skills have to be part of the competences expected from teachers. and should therefore be a core part of professional development.

**KEY FINDINGS – DIGITALLY COMPETENT TEACHERS TPG**

- Digital skills are some of the general pedagogical competences expected from teachers and should therefore be a core element of their professional development.
- Professional development needs to be flexible, granular, and respond to diverse needs, from baseline digital competence to teaching innovation using digital tools.
- Staff time and effort required to develop digital competences and embrace DELT need to be formally recognised as part of career progression procedures.
- The development of digital competences needs to be part of an evidence-informed approach to institutional and individual development, grounded in the literature and scholarship of learning and teaching.

**Availability and appropriateness of professional development for teachers is therefore of key importance.**

The format and content of such professional development **should be flexible, modular, and respond to diverse needs, ranging from basic digital competence to teaching innovation using digital tools.** Training and support offer has to be regularly assessed and updated, in order to meet teachers’ needs.

As also confirmed by other TPGs, **staff time and the effort required to change delivery modes and embrace DELT need to be recognised, including through academic career progression and rewards.**

The importance of placing digital competences as part of an evidence-informed approach to institutional and individual development was also raised. In particular the group underlined the need to support and improve DELT in a sustainable way to ensure that institutions learn from the actual impact of developing teachers’ digital competences on the quality of teaching, and on student success.

Institutions should see themselves as living labs that develop DELT by piloting innovative projects and initiatives. It was also deemed essential to base DELT development on research, ensure it is theoretically grounded in the literature and scholarship of teaching and learning, and nurture it through teachers’ experiences and insights. The role of digital technologies, such as learning analytics, was seen as being crucial to achieving a better understanding of student learning strategies, and of how effectively existing resources are used.

| DIGITALLY COMPETENT TEACHERS             |  |
|--|--|
| Université libre de Bruxelles, Belgium   | Open University of Catalonia, Spain                            |
| Central European University, Austria     | Lund University, Sweden  |
| University of Turin, Italy               | University of Applied Sciences and Arts of Western Switzerland |
| Vytautas Magnus University, Lithuania    | Izmir University of Economics, Türkiye                         |
| Lusofona University, Portugal            | University of Nottingham, United Kingdom                       |
| Ovidius University of Constanta, Romania | Coordinator: Thérèse Zhang (EUA)                               |

Figure 16 Digitally competent teachers TPG members

## Collaborative teaching practice

### KEY FINDINGS – COLLABORATIVE TEACHING PRACTICE TPG

- ❑ CTP needs to be a priority action in the institutional or departmental strategic plan and accompanying roadmap in order to encourage uptake.
- ❑ A recognition scheme for those who engage in CTP, taking time spent on delivery into account, is needed.
- ❑ Teachers who engage in CTP need to be rewarded in career progression procedures.
- ❑ Greater awareness of data protection rules is needed when using digital technologies and OERs. This can be addressed by data protection officers and clear institutional policies.
- ❑ Clarity on intellectual property rights and copyright rules is needed, to address the problem of practices varying between one institution and the next.

The groups pointed out that digitalisation had led to increased collaborative teaching practice (CTP) during the pandemic, with lockdowns forcing teachers to use digital tools and work together virtually in a way they could have never imagined.

The [Collaborative teaching practice](#) TPG outlined the key benefits of CTP, namely the improvement of teaching quality and the learning experience for both teachers and students, a deeper learning experience and the development of key transversal skills such as critical thinking, problem solving, interpersonal skills, interdisciplinary experience, and collaboration. Despite these benefits, there were still many challenges around uptake, including the question of how it can be sustained and mainstreamed. The group highlighted teachers' reluctance to share teaching materials, which underlines the inherent tension between teamwork and competition. Many staff find themselves doing CTP outside official working hours.

Some of these challenges can be tackled by listening to teachers' concerns, encouraging more interdisciplinary collaboration and making CTP a priority in the institutional or departmental strategic plan and accompanying roadmap. The group therefore recommended institutions to establish a CTP recognition scheme, taking the extra time spent on delivering CTP into consideration, such as through revised work allocation models, and that they reward CTP efforts in career progression procedures.

The group regarded the use of digital technologies as a key feature of collaborative teaching given the many inter-institutional, national and international collaborations during the pandemic, and agreed these are likely to have continued impact on future CTP trends. Nevertheless, as the International partnerships TPG mentioned, institutions run into legal issues around the use of digital technologies when engaging in CTP, which is complicated by the fact that EU GDPR can be interpreted differently from country to country. The group specifically discussed the risks and uncertainties around the use of Open Access Resources (OERs) and the reputational damage caused by breaching data protection rules. They also noted the risk of intellectual property rights infringement when sharing materials between different institutions in different countries, where the rules are applied differently, as well as varying copyright practices.

The group members agreed institutions need to clarify intellectual property rights and copyright rules practices and enhance awareness of the data protection regulations. They recommended appointing data protection officers to provide guidance on the use of technology for collaborative teaching. Drafting an OER policy was also deemed crucial to reducing legal uncertainty around institutional and inter-institutional collaboration, in particular regarding content- and data-sharing platforms.

## COLLABORATIVE TEACHING PRACTICE

|                                   |   |
|-----------------------------------|---|
| University of Limerick, Ireland   | University of Porto, Portugal                       |
| Tampere University, Finland       | Universitat de Barcelona, Spain                     |
| University of Freiburg, Germany   | University of Lausanne, Switzerland                 |
| University of Patras, Greece      | University of Aberdeen, Scotland,<br>United Kingdom |
| Eötvös Loránd University, Hungary | Coordinator: Alison Morrisroe (EUA)                 |
| University of Trento, Italy       |   |

Figure 17 Collaborative teaching practice group members

### Needs and wellbeing of students and staff

#### KEY FINDINGS - NEEDS AND WELLBEING OF STUDENTS AND STAFF TPG

- ❑ Embracing DELT during the pandemic led to an improvement in inclusivity and accessibility for some people.
- ❑ Working and studying online/in a hybrid format improved work-life balance during the pandemic, but also had a negative impact on workload.
- ❑ In some cases, DELT led to new anxieties during the pandemic, particularly among those lacking critical digital skills, or suffering digital poverty.
- ❑ Now is the perfect time for institutions to take stock of how they addressed and supported wellbeing during the pandemic.
- ❑ Wellbeing should be clearly addressed in institutional policies and strategies and regularly included in institutional self-assessment exercises.

The impact of online learning on student and staff wellbeing was a particularly hot topic during the pandemic, and came up frequently in the previous round of TPGs (2021-2022).

With DELT expected to play a prominent role in the post-covid university experience, the [Needs and wellbeing of students and staff](#) TPG considered some of the ways in which staff and student wellbeing had been affected during the pandemic, and focussed on a discussion on how to care for student and staff needs and wellbeing post-pandemic in physical and virtual settings.

The group members' experiences, and findings from a focus group that it organised with staff and students, revealed that, although many teachers and students struggled with emergency remote learning and teaching during the pandemic, others saw this mode of delivery as an improvement for inclusivity and accessibility allowing more flexibility to combine academic and private lives (for example, for students with work and caring commitments).

The group also unexpectedly discovered that although both student and staff work-life balance improved because they spent less time commuting and more time at home during the pandemic, digital or hybrid education had a negative impact on workloads, partly because of the habit of booking classes and meetings back-to-back.

The rise in DELT also created new anxieties, particularly where students or staff lacked critical digital skills, or students suffered digital poverty. The group members also reported that some students, (especially those who studied mostly or entirely online to date,) felt insecure about the prospect of returning to in-person classes.

With the lessons and experiences of the pandemic still fresh in institutional leaders' minds, the group argued that now is the time to take stock and initiate continuous reflection on this topic, also as part of self-assessment or similar exercises of how institutions addressed and supported wellbeing. The group members recommended institutions clearly address student and staff wellbeing in their policies and strategies, to ensure they become part of the institution's culture. Some concrete measures, such as

codes of conducts and rewards systems, and also prioritising investment in infrastructure and resources that can ensure wellbeing can be of help, but also regular, authentic and open conversations with staff and students. Leaders at all levels should minimise unhelpful hierarchies, and be role-models, leading by example and visibly upholding standards and practices that support wellbeing, and engage students and staff as active and equal agents and partners. While this is not always easily measured, such steps would benefit the institution overall.

#### NEEDS AND WELLBEING OF STUDENTS AND STAFF

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University for Continuing Education  
Krems, Austria

Ivane Javakhishvili Tbilisi State  
University, Georgia

Bielefeld University, Germany

Democritus University of Thrace,  
Greece

University of Modena and Reggio  
Emilia, Italy

Bern University of Applied Sciences,  
Switzerland

Cardiff University, United Kingdom

Coordinators: Helene Peterbauer  
(EUA) and Pieta Sikström (University  
of Jyväskylä, Finland)

*Figure 18 Needs and wellbeing of students and staff TPG members*

## 4 Conclusions

Post-pandemic, interest and readiness to engage in DELT may temporarily decline, due to its association with Covid-19 emergency provision, insufficient and unsuitable resources, concerns about cost, and the social, educational and ethical implications, and generally, a lack at the level of institutions and individuals.

But in the medium to long run, the use of digital tools will inevitably increase, in all parts of society and economy, and the education sector will be no exception. Quite on the contrary, higher education has a major role and responsibility, as part of its research and education mission, to anticipate and explore smart, responsible and ethical use of digital technologies, towards its graduates, but also towards society at large.

DELT must therefore be included in institutional learning and teaching policies and strategies. Decisions must be based on evidence about our changing goals, needs, and challenges. Systematic use and mainstreaming also involve considerations of quality and economy.

While devising an evidence-based strategy for DELT is vital, it can only be fully achieved with sufficient buy-in and proactive student and staff participation. Involving the education community in strategy development and consulting them about DELT decisions will boost ownership, and ensure institutions can meet their DELT needs. This will result in a deeper learning experience, which enhances learning outcomes.

Further training and support is needed to give teaching staff the confidence and skills required to deliver DELT. Their efforts must be properly valued and recognised, including through academic career assessment and progression mechanisms. Such support and recognition will also contribute to the culture shift required to fully embrace DELT and to make sure it is delivered effectively, appropriately and safely.

Self-assessment is necessary in all these areas. The project showed that undertaking such exercises can be a highly fruitful way to enhance quality, allowing institutions to undertake well-informed reflection.

Self-assessment instruments can be useful ways to gather evidence and enable structured conversations concerning institutional goals, approaches and strategy development. The project also unearthed a plethora of self-assessment instruments, which could contribute to peer learning and community building. The project explored their many benefits, as well as some of the reasons and motives for hitherto relatively hesitant use. It found that as a voluntary measure, outside the institution's regular QA and other assessment obligations, self-assessment comes with no assistance, and requires extra work and resources. If not properly planned, it adds to already increased demands on staff, which risks generating more negative than positive outcomes and reactions.

Institutions can of course create their own approaches, combining surveys, focus groups, SWOT analyses and mapping exercises as well as peer reviews, to suit their individual circumstances and needs. But such approaches may take considerably more time and resources, while existing instruments can at least provide inspiration.

The team observed a general demand for more sector-level discussion and action, whether through national authorities, or sector self-organisation, via university associations and networks. While focussed on institutional development, many of the project activities demonstrated that successful DELT also depends on external conditions. Regulations and external quality assurance pose problems in some individual higher education systems, and institutions in most sectors sense that new approaches will also require some clarifications and revisions to the regulations regarding, for example, external quality assurance, student status, academic careers, and funding.

The predominantly publicly funded European higher education sector needs to establish working arrangements with ed-tech industry partners that provide reliable, affordable services and do not compromise on values and safety. This may be challenging, as the project flagged many higher education concerns around the use of digital, such as interoperability, infringement of intellectual property rights and GDPR.

Furthermore, the project came to an end just as ChatGPT was launched, provoking concerns and controversial debate among educators worldwide, on the actual and potential consequences for learning and teaching. Although there are safety and data protection risks associated with AI tools, as with many digital tools, it also represents numerous potential academic benefits. These include improved efficiency, personalised learning, and new ways of working. Although such concerns fall outside the eligibility period and scope of the DIGI-HE project, higher education institutions will have to explore responsible use of AI tools, in line with their mission, goals and values, with due regard to their legal framework, and in view of the wider consequences for society, culture and the economy.

Finally, these conclusions cannot be read without considering the unprecedented and unexpected role the pandemic played in dramatically increasing the uptake of DELT in higher education institutions.

The lessons learned from the pandemic demonstrated DELT's potential to make higher education more equitable, more inclusive, more student-centred and more flexible, allowing students to switch seamlessly between online and offline studies, to learn at their own pace within a clear framework for credit accumulation and transfer. However, this flexibility raised questions about the role teaching staff would play in the future of DELT in higher education. While many surveys (including the project's own) researched institution, staff and student needs during the pandemic, very few explored how to establish a more nuanced discussion on the use of various delivery modes (including on-campus and off-campus formats as well as synchronous and asynchronous tasks) to ensure the best learning outcomes.

Lastly, the project ended approximately one year after most pandemic-related restrictions were lifted in Europe, at a time of digital fatigue when there was also pressure to return to fully in-person teaching. But at the time of this publication, some voices were calling for a return to greater online provision. As we inch further into the post-pandemic era, this left the consortium wondering if the pendulum was truly swinging back and if institutions were rediscovering what worked well during the pandemic in terms of DELT delivery. Although this is beyond the scope of the DIGI-HE project, such development will remain a crucial area of discussion going forward. Watch this space.

The role of the teacher in DELT provision, may become more of a moderating role, questioning the individual teacher format. Rather than seeing teachers as solo performers, a more coordinated and cooperative approach.

- DIGI-HE Advisory Board

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## Annex 1: Overview of project deliverables

- ❑ Survey report: “Digitally enhanced learning and teaching in European higher education institutions”
- ❑ Inventory report: “Developing a high-performance digital education ecosystem: institutional self-assessment instruments”
- ❑ Two-part webinar series: A strategic reflection on digitalisation in higher education
  - Developing a high-performance digital education ecosystem
  - Results of the survey report, “Digitally enhanced learning and teaching in European higher education institutions”
- ❑ Thematic Peer Group report: “Strategy and organisational culture”
- ❑ Thematic Peer Group report: “Curriculum and assessment”
- ❑ Thematic Peer Group report: “International partnerships”
- ❑ Thematic Peer Group report: “Digitally competent teachers in designing quality learning environments”
- ❑ Thematic Peer Group report: “Collaborative teaching practice”
- ❑ Thematic Peer Group report: “Needs and wellbeing of students and staff”
- ❑ Three-part workshop series: “Developing a high-performance digital education ecosystem”
  - Strategy and organisational culture – 19 October 2021
  - Institutional self-assessment – 24 November 2022
  - Assessing institutional approaches and ambitions beyond the pandemic – 14 November 2022
- ❑ MOOC: “Looking Inside Digital Higher Education: A Self-Assessment Guide”
- ❑ Final publication – The Future of Digitally Enhanced Learning and Teaching

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This publication has been developed under the Erasmus+ co-funded DIGI-HE project, led by EUA and in partnership with Dublin City University (Ireland), Baden-Wuerttemberg Cooperative State University (Germany), Vytautas Magnus University (Lithuania) and the University of Jyväskylä (Finland).

The project aims to support higher education institutions to engage in self-review to develop and enhance their strategic approaches to digitalisation.

Co-funded by the  
Erasmus+ Programme  
of the European Union



The DIGI-HE project is co-funded by the Erasmus+ Programme of the European Union. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.