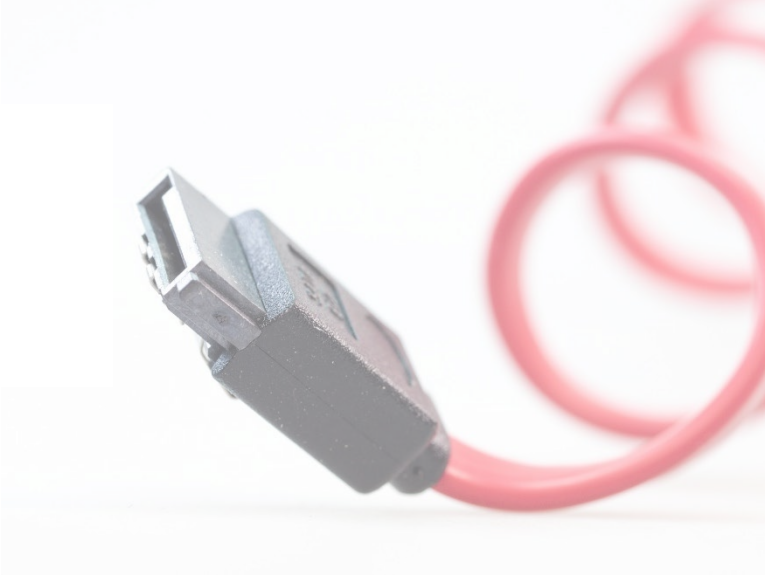
PowEr hEad
Empowering Higher Education in Adopting Digital Learning

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

Common needs analysis

January 2022

European project POWERHEAD



1 The project POWERHEAD

1.1 Goal and project partners

The Erasmus+ KA3 project POWERHEAD (Empowering Higher Education in Adopting Digital Learning) aims to encourage and support digitalisation in higher education. The project is coordinated by the Flemish Department of Education and Training. The Flemish Education Council vouches for the implementation of the Flemish segment. The Ministry of Education and Science of Latvia is implementing the Latvian segment of the project.

1.2 Past activities

- As a first step of the project, a background paper was drawn up (see the project website). This paper was prepared by a Flemish working group and was afterwards validated during a first meeting of a transnational steering group on March 31 2021.
- As a next step, the current needs of higher education concerning digitalisation were identified by means of focus groups with various stakeholders. This step was performed simultaneously in Flanders and Latvia, and resulted in a Flemish Needs analysis and a Latvian needs analysis.
- During the meeting of the transnational steering group of the project on November 16 and 17 2021, the input from the Flemish and Latvian focus groups have been merged and common needs have been identified.

1.3 Common needs analysis

In order to make an inventory of the needs of higher education institutions to develop a sustainable and thought-out policy on digital learning, focus groups were conducted in the two partner countries:

- In Flanders, 5 homogeneous groups were organised with the following groups: employers and social partners, educators and educational support staff, heads and directors in higher education institutions, government/policy advisors, students. One additional sixth focus group was organised with a labour market perspective. This resulted in a total of 41 participants. The results of these focus groups were brought together in a report with an overview of the needs of higher education in Flanders.
- In Latvia, 4 focus groups were conducted with in total 21 participants of the following groups: lecturers, students, industry/business representatives, and policy makers. The results of these focus groups were summarized in a report on Latvian needs analysis.

The focus groups in Flanders and Latvia were structured in a similar way, i.e., around the following general themes and subthemes:

1. Students
2. Course & Curriculum Design
   2.1 Curriculum Design & Assessment
   2.2 Support and Professionalisation
3 Vision, Policy, and Quality Assurance
   3.1 Vision and Policy
   3.2 Quality Assurance
4 Funding and Infrastructure
   4.1 Funding
   4.2 Infrastructure and resources
5 Other themes

These themes were based on the Laurillard model (2015)[1], which was used as a starting point for determining the themes on the one hand and the questions per theme on the other hand.

During the meeting of the transnational steering group of the project on November 16 and 17 2021, the input from the Flemish and Latvian focus groups has been presented by the project partners. Furthermore,

- common needs have been identified;
- certain needs have been highlighted or have been related to other needs by the transnational steering group:
- and complementarities in the two needs analyses have been found.

2 Content of this document

This document offers a concise overview of the *common* input in the needs analysis conducted in Flanders and Latvia in the framework of the POWERHEAD project. It is structured according to similar themes and subthemes. The document contains:

- The common needs that have been identified (in section 3. and Annex I);
- The comments, additions and suggestions that have been given by the transnational steering group (in section 3.);
- The complementarities that have been identified (in section 3.);
- The conclusions and information about the next steps (in section 4.)

3 Description of common needs and complementarities

During the transnational steering group meeting on November 16 and 17 2021, a table was used to initially present an overview of the common needs that were identified in both the Flemish and Latvian Needs analyses, according to the identified themes and subthemes. This table also contained references to the accompanying section in the Flemish Needs Analysis and the Latvian Needs Analysis. The table was discussed and validated during the meeting. Annex I contains this schematic overview of the common needs, presented by means of a table.

[1] Laurillard, D. (2015). Thinking about Blended Learning. A paper for the Thinkers in Residence programme. In: Van der Perre, G and Campenhout, J. V., (Eds.) Higher education for the digital era; A thinking exercise in Flanders (pp. 7- 33). KVAB: Brussels, Belgium

Following the initial presentation, the common needs were considered more in depth during the transnational steering group meeting. Therefore, in this section, a distinction is made between:

- Commonalities/common needs: many commonalities have been identified between the two needs analyses. In what follows, the common needs are briefly described, together with some highlights and considerations of the members of the transnational steering group of the project.[2]
- Complementarities: although generally the same needs appear in the two partner countries, it is clear that there are still some complementarities of the two needs analyses.[3]

This section is structured according to the identified themes and subthemes (see 1.3).

[2] These common needs reflect the commonalities in the views of participants of the focus groups, and are not an official position of the (institutions of) the project partners.

[3] This document does not aim to make any conclusions about the extent to which these complementarities merely reflect differences in the focus of conversations with the participants, or also reflect differences in policy and practices the two partner countries.

3.1 Students

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Digital competencies/ literacy	
Students need high-level digital competencies/a wide digital literacy. Acquiring these competencies should be supported during their studies.	Participating to digital learning in higher education, and more specifically acquiring digital competencies, may be more difficult for 'new' groups of students (for instance, working students or returnee students to higher education) than for 'traditional' students (who participate in higher education immediately after finishing secondary education). This confirms that there is a need for a digital framework for citizens: all citizens, not only the 'traditional students', need to be able to participate in digital learning. When considering the digital competencies of students, more attention should be paid to the relation with digital competences for citizens.[4]
2. Digital inclusion	
The digital transition should take place in an inclusive way. Attention is needed for accessibility and inclusion of digital resources. Furthermore, the needs of different groups of students should be recognized. Especially for vulnerable groups, guidance and support is required.	Given that higher education nowadays is targeted at diverse types of learners, it is better to start from the principal of 'Universal Design'[5], i.e., designing education in such a way that all students can participate and get the best learning opportunities, instead of the idea of inclusion of students with special needs in particular. This way, inclusion and diversity is considered in a broader sense.
3. Flexible and adaptive use of digital environments	
There is a need for an accessible, flexible, adaptive and personalized system that can be tailored to diverse student profiles. Blended or digital education may offer diverse groups of students more opportunities to study.	Within this (common) needs analysis, it is good to (re)think the definition of a student. In most higher education policy documents, the focus was traditionally put on the so-called 'generation student' (17-25 years old). But when we talk about the digitalisation strategy, it is clear that digitalisation offers opportunities to attract a larger, more heterogeneous population of learners. Besides differences in ages, the broad definition of a learner is also linked to students with different backgrounds, to students who live in a remote geographical area, to students with special needs, etc. Nowadays, a 'student' is not a homogeneous category anymore. Hence, what higher education is offering, will have to

[4] The European Digital Competence Framework for Citizens, also known as DigComp 2.0: The Digital Competence Framework for Citizens. Update Phase 1: the Conceptual Reference Model, offers a tool to improve citizens' digital competence.

[5] For a definition of Universal Design, see the following website of Flemish Support Centre Inclusive Education: Guideline Universal Design. Also the EATDU is currently organizing a Task Force Diversity and Inclusion, representing a great variety of policies, approaches, expertise and experiences in this field.

	be aimed at all kinds of people who are willing to learn. In the design of digital education, the accessibility, flexibility, and adaptivity is becoming a core dimension. This discussion is becoming imminent in most countries: How to shape this kind of provision of higher education so that it fits for all learners? For instance, in the future, higher education will not only have to provide mainstream degree education but also courses tailored to (adult) learners. It could be expected that mainstream higher education will be blended, and that continuous education and professional development will be mainly online.
4. Well-being and mental health of students	
When a lot of time is spent in digital environments, social contact significantly decreases. This may give rise to psychological difficulties amongst students. Several valuable initiatives emerged to support students in various higher education institutions during the pandemic. Also in the long run, this attention for mental health is needed in digital environments.	/
5. Self-regulation and self-directed learning skills	
Cognitive load increases for students in digital environments. This requires students to take up a lot of responsibility, and to develop their planning skills. Students needs to acquire self-regulation and self-directed learning skills. Especially in the first year/early stages of study, support is needed.	'High digital literacy' (theme 3.1 students, common need 1.) can be understood broadly, for example as a general kind of 'readiness for digital learning', which is closely related to the need for self-regulation skills. Although the aspect of students' readiness for online learning is crucial, it is too often forgotten when considering digitalisation in higher education. For instance, also within teachers' continuous professional development, students' readiness for digital learning has to be included: teachers have to understand the importance of students' readiness for online learning.
6. Communication, involvement and student participation	
During transitions to digital education, students experienced the need for clear, immediate communication. They also want to be involved when policy is developed.	/

Complementarities

- 'Flexible and adaptive use of digital environments' (common need 3.)
  In the Latvian needs analysis, this identified need is more explicitly linked to 'inclusion', which is understood as happening through social processes when groups of students are taking the same digital course. In the Flemish needs analysis, this point was raised when referring to e.g. working students, who need courses tailored to their needs.

These are two different views on inclusion: digitalisation can help in bringing students together (the social role of education, supported by digitalisation), and digitalisation can be used utility-driven: students wanting to develop competences and to gain knowledge through tailored courses (individual perspective).
There could be a tension between, on the one hand, what the individual student needs and expects from higher education, and the role of higher education in creating a sense of belonging to a group and to education as a social act. Digitalisation could support higher education in blending these two roles. There is also a link here with course and curriculum design (see section 3.2), in the sense that it is the responsibility of teachers to design their courses in a way that enhances not only the individual perspective of inclusion, but also the sense of belonging of the students. This is not the sole responsibility of the student, but also of the teacher.

- Self-regulation and self-directed learning skills (common need 5.)
  In the Flemish needs analysis, the need for self-regulation and autonomy in digital learning environments is stressed. In the Latvian needs analysis, regarding the theme of self-regulation skills, it is stressed more strongly that feedback is needed from the teacher, by means of introductory courses, etc.

3.2 Course and curriculum design

3.2.1 Curriculum design & assessment

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Emergency remote learning in pandemic vs. designing education in the long term	
The traditional 'analogue' system of higher education cannot simply be transferred to a digital channel. There is a need to go from emergency digitalisation towards a sustainable and well-considered redesign of curricula.	The transition from emergency remote learning in the pandemic towards designing well-considered blended education in the long term is considered as one of the two major needs regarding course and curriculum design (besides common need 5.). This links with several other themes and subthemes. There is an important role for change management (see subtheme 3.3.1 vision and policy, common need 1 'vision, change management and leadership') and continuous professional development of staff (see subtheme 3.2.2 support and professionalisation). The first thing to do is to create the conditions for this transition. In most higher education institutions, the conditions are there, but they are created top-down. What we need is a massively supported institutional policy, creating the conditions for a sustainable transition (see subtheme 3.3.1 vision and policy, common need 2 'Commitment, involvement and policy implementation at all levels').

2. Development of study programmes should be based on pedagogical-didactical principles	
Decisions need to be made about the development of study programmes, and the role that digital educational technology plays in these programmes. These decisions should be based on pedagogical-didactical principles (and may therefore depend on the study field).	There is a tension between, on the one hand, the educational community asking for professional autonomy to make decisions based on pedagogical-didactical principles, and, on the other hand, the need to streamline policy at the institutional level (see subtheme 3.3.1 vision and policy, common need 2 'Commitment, involvement and policy implementation at all levels'). This is an ongoing tension; balance needs to be strived for.
3. Flexible and modular curricula	
Digitalisation can contribute to evolving to a more flexible and modular curriculum than the 'traditional' curriculum which consists of the same courses for all students.	/
4. Study modules on digital skills	
There is a need for further developing students' digital skills by means of specific study modules. It is necessary to identify which specific digital skills are important in which fields of study.	/
5. Student assessment in the digital environment	
Reflection is needed about student assessment in the digital environment. Digital examinations pose some challenges for lecturers. Ideally, a variety of assessment methods is used.	The challenge of e-assessment is considered one of the two major needs regarding course and curriculum design by the transnational steering committee (besides common need 1.). We need a framework for e-assessment. The building blocks are there already, but the actual work of creating and implementing a framework for e-assessment has not been done yet.[6]

Complementarities

- The aspect of flexible and modular curricula has a more prominent place in the Flemish report than in the Latvian report. There is an imminent need in Europe for more modular higher education. The discussion on micro-credentials[7] is held everywhere now: it is about rethinking higher education, and about offering continuous education as a service next to degree education.

[6] The TeSLA report on the Framework for the Quality Assurance of e-Assessment gives an overview of the state of the art in the field of e-assessment. It does not bring the final solution, but it draws the contours of it.

[7] The EU Council of Ministers of Education will soon adopt a proposal of the European Commission to implement a microcredential framework. See: European Commision (2021). Proposal for a Council Recommendation on a European approach to micro-credentials for lifelong learning and employability, Brussels, 10.12.2021 COM(2021) 770 final, 2021/0402 (NLE), Commission takes action to improve lifelong learning and employability. Also see the publications of the Erasmus+ KA3 project MICROBOL (Micro-credentials linked to the Bologna Key Commitment).

3.2.2 Support and professionalisation

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Sharing/exchange/mutual learning between educators	
There is a need for ongoing mutual learning, sharing, and exchange between educators. This knowledge sharing should be facilitated.	This common need can be related to 3.3.1, the vision and policy subtheme. There are inspiring examples (e.g. in the UK) of cooperation between universities. For instance, cross-university subject-related communities are very successful. This kind of cooperation is, unfortunately, often project-driven.[8]
2. Support, time and recognition for educators	
The switch to more digital education requires time and energy of educators. Policy should valorise these efforts that educators make towards digitalisation.	The transnational steering committee stressed the need for technical and didactical support at the institutional level in this transition from traditional face-to-face learning to online and blended learning (also see subtheme 3.3.1 vision and policy.). Educators use diverse strategies, diverse types of assessment, etc. This diversity has major effects on the students. So there is not only the need to professionalise (see also common need 3. below) but also to provide some kind of guidelines and/or strategy at the institutional level (e.g. based on peer review of courses), in order to reach consistency in course design for students. This support should be provided at the departmental level, by peers, by technical staff, etc. It is desirable that higher education institutions have an appropriate unit to organise this support.[9]
3. Need for targeted/specialised professionalisation of educators	
There is a strong need for professionalisation of educators, which should be specifically targeted to their own needs (depending on their knowledge and skills, career path, study field, etc.).	Simply using digital technology is not enough to be a good educator. Educators are confronted with special needs problems, cognitive load problems (see common needs theme 3.1. students), etc. when integrating technology in the learning environment. Therefore, during digital transitions, involvement and preparation of staff as well as digital competences of staff are key points of attention.
4. Purposeful system of professionalisation for educators	
The professionalisation initiatives available to educators should be diverse enough to cover different	/

[8] A non-project-driven example of such communities can be found at the SURF-website. This example lists 23 subject-related communities who exchange knowledge and event announcements through the website.

[9] On the SURF-website, the publication 'Keuzehulp voor het ondersteunen van onderwijsinnovatie met ICT' [Selection guide to support educational innovation by means of ICT] explains a number of different ways in which such support may be organized, i.e. as project or on permanent basis, bottom-up or top-down, centrally or in decentralized form etc,, and gives examples for each choice option.

educators' needs, and should be organised efficiently, by means of a purposeful system.	

Complementarities

/

3.3 Vision, policy and quality assurance

3.3.1 Vision and policy

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Vision, change management, and leadership	
It is necessary to think about the vision at the institutional level in the field of digitalisation: What are the goals and what do we want to achieve with digital solutions in education? Change management is needed, and agents of change/leaders take a central role in this process.	Flanders and Latvia are currently moving from a disruptive phase to a process-based phase of digitalisation. It is, therefore, important to not only have 'management of change', but also to increasingly take up the actual 'change management'. During the pandemic, actors in higher education had to quickly make decisions. But now, it's up to the institutions to think about how they want to continue the change and look from a different and more proactive perspective. They need to look at the added value of technology for students and different courses, and that includes blended formats. During the pandemic, actors in higher education tried to manage the change, but now, a more durable approach is needed and can be found in change management.
2. Commitment, involvement and policy implementation at all levels	
The policy needs to be streamlined, at institutional level and at other levels within the higher education institutions (e.g. the level of study programmes). The perception of commitment and involvement in policy development of people at different levels within the institutions is crucial.	It is important to involve the different levels within a higher education institution and ensure streamlining of the levels, in order to create and implement the change towards a sustainable policy on digital learning in higher education. On the other hand, leaders are needed to set the change, otherwise the change might not happen. People often tend to follow the leader in his decisions. The leader might therefore need agents of change to help and bring in expertise and input. These agents of change are crucial during change processes. This way, change could be initiated top-down, but could also be

	initiated and supported at different levels. The steering committee concluded that a balance between bottom-up and top-down ought to be found. [10]
3. Prioritise digitalisation at national level and develop policy	
Also at the national level, digitalisation needs to be put forward as a policy priority and a vision needs to be developed.	All higher education institutions are evolving now in the field of digitalisation. They have been trying out tools, practices, and devices;, and especially since the beginning of the pandemic (i.e., project-based approach). Currently there is the need for sharing and bringing together experiences of projects that have been conducted in Europe in the last two years. This is best done in a centralised support point, a central organisation with the involvement of stakeholders (such as SURF in the Netherlands). It should not be organised top-down, but stakeholders should participate and share experiences with other institutions and stakeholders. This relates to the common need 5. cooperation, exchange, and common understanding in higher education.
4. Internationalisation and digitalisation	
Digital (educational) technology offers opportunities for implementing digitalisation of higher education, but also for further international profiling of higher education institutions.	This common need is related to the previous subtheme 3.2.1 curriculum design and assessment. Although the focus of this project lies on digitalisation, it is important to keep in mind that learning is about the balance between the integration of personal learning experiences and online learning experiences. Both aspects link with the statement in the title of common need 2. 'Development of study programmes should be based on pedagogical-didactical principles' (see 3.2.1). Digitalisation is not an aim in itself: the pedagogical-didactical aspect prevails. It is important to look at the opportunities digitalisation brings about, such as internationalisation and cooperation. There is the need to rethink international cooperation and mobility (which can also take place in a blended or virtual form), especially given that universities are increasingly involved in European Alliances.[11] The transnational steering group stresses that virtual mobility should not replace physical mobility. On the contrary, virtual/blended mobility is about creating new opportunities, and about reinforcing internationalisation this way. This is especially the case for students and/or staff who already had the opportunity to take part in physical mobility.

[10] In the Netherlands, the creation of the 'Acceleration plan of ICT in higher education' is currently proving to be a large impulse for managing change in this field. This acceleration plan was created three years ago in a joint initiative of SURF, the Ministry of Education, and the VSNU and VH (=umbrella organisations of higher education institutions). This is an example of a change process on national level, but led by representatives of the sector itself and thus leading to more or less cohesive development..

[11] European Universities Alliances are one of the flagship initiatives of the EU's European Education Area with the ambition to build the European university of the future, 'promoting European values and identity' and 'improving the quality and competitiveness of European higher education'.

5. Cooperation, exchange, and common understanding in higher education	
There is a need to encourage and support systematically embedded exchange and cooperation between educators, study programmes, and institutions. A common and shared understanding and implementation of the policy needs to be reached, and this could be done by means of a mutual dialogue with stakeholder at different levels.	The need for cooperation between higher education institutions (rather than competition) is crucial. Diverse needs will stay if higher education institutions do not work together within a country and in an international context (see common need 4. internationalisation and digitalisation). However, the implications that cooperation has for the exchange of tools, the use of infrastructure, course development, etc., need to be considered. Furthermore, encouraging and strengthening the motivation to cooperate should also be a part of the support that could be offered from the government. This has been mentioned in the Latvian needs analysis, as Latvia is a small country with a limited number of specialists, which makes it even more important to cooperate.

Complementarities

- The need for 'change management' and the idea of 'agents of change' is stressed more strongly in the Latvian than in the Flemish needs analysis. Although the idea of 'agents of change' was not explicitly named in the Flemish focus groups, the notion of leadership did come up in this context. Leaders should play an important role in decision-making and change. On the other hand, policy should also be streamlined and supported at different levels within a higher education institution.
- In the Flemish needs analysis, the policy is seen more as a framework, where in Latvian needs analysis, the policy approach comes across as a steering instrument. The question of how steering at the national level can be done, needs to be raised, considering the autonomy of the higher education institutions in this.

3.3.2 Quality assurance

Common need

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee of the project
Role of digitalisation in the quality assurance system	
During the pandemic, it was hard to assess the quality of the digital education that took place, because the focus lied on rapidly implementing changes. However, in the long run, digitalisation should be included in the regular quality assurance system(s).	There are two aspects related to quality assurance and digitalisation: firstly, the quality assurance of digital education, and secondly, the development of online quality assurance processes. The upcoming work programme of the Bologna Peer Support Group on Quality Assurance is focusing on the second aspect. Regarding the QA of digital provision, there are many frameworks for quality assurance, both at the European and national level. These are broad enough to be applicable to digital aspects of learning as well. However, during the pandemic, higher education institutions did not necessarily work within the available frameworks, given the urgency. Hence, there is not a need for new frameworks, but the current frameworks need to be adapted to the 'new reality' and to the disruption caused by the pandemic.

	It is important to refer to the European Standards and Guidelines (ESG) in particular. They are still perceived to be the core of internal and external quality assurance. It remains a good common framework, which is also applicable to e-learning[12] (and even to micro-credentials). However, it needs to have a check in the short term, so that it remains applicable in the new context of the current digital and blended higher education. In the future there will be the need for: • an integrated approach to e-learning within a larger pedagogical vision; • e-expertise in the QA panels; • a chapter on e-learning in the self-assessment report. New forms of cooperation like within the European Universities, ask for specific attention. In the European project EUniQ, coordinated by Belgium/the Flemish Community, the project partners have developed a European Approach for Comprehensive QA of (European) University Networks[13].

Complementarities

/

3.4 Funding and infrastructure

3.4.1 Funding

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Specifically allocated funding and investments	
There is a strong need for funding that is specifically allocated to digitalisation in higher education. Significant investments are nowadays done, both at the European level (European Recovery Funds) and the national level, as a response to the highly digitalized education during the pandemic.	Project funding is suited to try out new things, but sufficient structural funding for higher education is needed as well, not only to fund hardware, software and infrastructure, but also to develop digital competences of staff and students, and to support knowledge exchange between institutions.

[12] A paper by ENQA (European Association for Quality Assurance in Higher Education) also confirmed that the actual quality assurance frameworks are still valid, but may need an update in the coming year.

[13] For more information about the project 'Developing a European Approach for Comprehensive QA of (European) University Networks' (EUniQ), see this website.

2. Continuous basic funding for higher education	
Project-based financing is not a long-term solution; continued financial investment is needed to support digitalisation in higher education in a sustainable way.	An important topic related to common need 2. is sustainability in relation to the digital transformation: e.g., green, social, global, and institutional sustainability. This is a big issue in higher education policy in Australia, and it is starting to become an important topic in Europe too.
3. Enough staff and well-being of staff	
The (further) rollout of digitalisation requires sufficient staff, who has a suitable profile. The well-being of staff needs to be monitored, because the digitalisation wave triggered by the pandemic has increased the workload on staff.	/

Complementarities

- The Latvian report focuses on funding for higher education in general: the focus lies on the fact that more funding is needed, and especially more continued investments instead of project-based funding. Besides the importance of project-based and basic, continued funding, the Flemish report stresses the importance of human expertise and the difficulty in finding sufficient staff who has a suitable profile.

3.4.2 Infrastructure

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Digital tools	
Digital equipment should be provided in the higher education institutions, because it determines the quality of education. There is a need for the provision of various technologies, which may require collaboration with companies/industry.	/
2. Availability and accessibility of infrastructure	
Not just digital technology, but the infrastructure as a whole needs to be available. There is a need for accessible infrastructure on campus (e.g., physical: spatial design of buildings, and online) as well as in the home environment.	/

3. Administrative processes and systems	
Digital infrastructure needs to be available to students and staff for administrative processes. The administrative obstacles should be as limited as possible.	/
4. Sharing of educational resources (materials, software, etc.)	
Educational resources need to be shared more, between educators and students, between educators, between study programmes, between higher education institutions, etc. This resource sharing needs to be supported at the national level.	It is important to share resources, but there are still a lot of barriers, related to language and copyright issues (see 3.5 other themes). Exploring ways to tackling those barriers is an important need.

Complementarities

/

3.5 Other themes

Common needs

Description of common need of both needs analyses	Highlights and reflections of the transnational steering committee
1. Involvement of industry representatives in the development of study programmes	
The employers are important partners in digitalisation. Therefore, creating a network with employers and industry representatives, in order to develop study programmes, would be necessary (especially in certain study fields).	The dialogue between higher education institutions and stakeholders of industry cannot be stressed enough. In the field of Vocational Education and Training, this dialogue with the industry/labour market is easier than in higher education, as there is more awareness and more budget in that field. Micro-credentials remain 'standalone' in higher education, also because the role of higher education in continuous development is still being discussed and under development. Nevertheless, micro-credentials are important and powerful for the higher education field. When talking about digital higher education, they offer opportunities to reach out to the demands of the changing labour market.
2. Role of developers of hardware/software in digitalisation	
Developers of hardware and software are key players in the domain of digitalisation in higher education. However, higher education institutions cannot fully depend on them. A cooperation between institutions or between institutions and the developers is essential.	A 'digital campus' may be considered as an international campus, as is the case within the European Universities where courses are internationally delivered. This is related to the 3.3.1 vision and policy subtheme, where common need 4. stresses the importance of internationalisation and digitalisation.

3. Role of local governments in digitalisation[14]	
Local governments can play a role in digitalisation, e.g., in providing vulnerable students a place to study.	/
4. Privacy, data security, and other regulatory/legal aspects	
Data security, data privacy, and other regulatory/legal aspects (e.g., copyright, technology rights, intellectual property rights, etc.) need to be seriously considered in digital environments. Support at the national level is needed.	This topic is linked to digital literacy of students (theme 3.1 students) and staff (subtheme 3.2.2 support and professionalisation): Digital literacy also has to include regulatory/legal aspects such as privacy literacy. This, for instance, includes the awareness of the existence of privacy literature, but also relates to questions as: How to secure your own data/data of students? These are relevant questions for the institutions and the government.
5. Psychological acceptance of change	
Change processes may initially evoke resistance or trepidation. However, the successful roll-out of digitalisation in higher education requires the psychological acceptance of change.	/

Complementarities

- The need for privacy literacy (and other regulatory/legal aspects) is stressed more strongly in the Latvian report than in the Flemish needs analysis. This is nevertheless an important need for all countries that are developing a sustainable policy on digital learning in higher education.
- The role of the local government is recognized in the Flemish report, but it is not discussed in the Latvian report.

[14] This theme has not been identified as a common theme, since it was not discussed in the Latvian needs analysis.

4 Conclusions and next steps

4.1 Conclusions

This document presents an inventory of the needs of higher education in Flanders and Latvia, in order to develop a sustainable and thought-out policy on digital learning. It is based on focus groups that were organized with different stakeholders in the higher education field in the two partner countries.

4.1.1 Common needs

Based on this inventory, it can be concluded that many commonalities have been identified between the Flemish and Latvian needs analysis.

The common needs can be summarized as follows:

- Students: In digital environments, students do not only need high-level digital competencies and self-regulation skills, also their mental health needs to be monitored. The digital transition should take place in an inclusive way for all students. Therefore, an accessible, flexible, adaptive and personalized system is required, so that it can be tailored to diverse groups of students. Students need clear and immediate communication too and want to be involved when a more sustainable policy on digitalisation is developed.
- Course and curriculum design: Nowadays there is a need to go from emergency digitalisation towards a sustainable and well-considered redesign of curricula. During this transition, decisions need to be based on pedagogical-didactical principles. Digitalisation also offers opportunities to evolve to more flexible and modular curricula, where study modules to develop students' digital skills should be included, and a variety of digital and face-to-face assessment methods should be used. Further, educators need mutual knowledge sharing and exchange, as well as time and recognition for their efforts towards digitalisation. There is also a strong need for targeted and specialized professionalisation of educators, which should be organized efficiently.
- Vision, policy and quality assurance: It is necessary to think about the vision at the institutional level in the field of digitalisation. Although leaders take a central role in this process, the policy needs to be streamlined at different levels within the higher education institutions too, and a common understanding and implementation of the policy needs to be reached. Also at the national level, digitalisation needs to be put forward as a policy priority and a vision needs to be developed; and at the international level, digitalisation offers opportunities for profiling of higher education institutions. Regarding quality assurance, digitalisation should be included in the regular quality assurance system(s). Hence, there is not a need for new quality assurance frameworks, but the current frameworks for quality assurance need to be adapted to the 'new reality' and to the disruption caused by the pandemic.
- Funding and infrastructure: Besides funding that is specifically allocated to digitalisation in higher education, continued financial investment and sufficient staff is needed. Likewise, not only digital equipment (for teaching as well as for administrative processes) needs to be available, but the infrastructure as a whole needs to be considered. There is a strong need for sharing educational resources too, between educators and students, between educators, between study programmes, between higher education institutions, etc.
- Other themes: The employers and hardware and software developers are important partners in digitalisation. Furthermore, several aspects such as data security, data privacy, and other regulatory/legal aspects, need to be considered in digital environments. Also the psychological acceptance of change is required for the successful roll-out of digitalisation in higher education.

4.1.2 Complementarities

Although generally the same needs appear in the two partner countries, there are still some complementarities of the two needs analyses, related to:

- The way in which digital inclusion and the need for self-regulation skills has been elaborated (students);
- The extent to which the aspect of a flexible and modular curriculum has been stressed (course and curriculum design);
- The way in which leadership and change management, as well as the role of national policy is considered (vision, policy and quality assurance);
- The extent to which the aspect of human expertise has been stressed besides project-based and more long-term funding (funding and infrastructure)
- The attention that has been given to privacy literacy and other legal/regulatory aspects, as well as the role of the local governments in digitalisation (other themes).

However, as mentioned before, this document does not aim to make any conclusions about the extent to which these complementarities merely reflect differences in the focus of conversations with the participants, or do reflect actual differences in policy and practices the two partner countries too.

4.2 Next steps

4.2.1 Broadening the expertise

As a next step in the project, the common needs analysis will be discussed and complemented during a Peer Learning Activity in which other European countries will give their input. This Peer Learning Activity will take place in February 2022. This way, the current common needs analysis will be enriched and collective needs at the European level will be identified.

4.2.2 Guidelines on digital learning in higher education

Based on all previous activities, guidelines for a national policy on digital learning in higher education and recommendations towards the higher education institutions will be formulated. This will initially be prepared by both partner countries separately, and will afterwards be validated transnationally.

4.2.3 Dissemination of results

In the end, these guidelines will be disseminated by means of national conferences in the two partner countries (Flanders and Latvia) as well as international conferences. The project comes to its end in November 2022.

Annex I

The table below was used to present and validate the common needs that were identified in both the Flemish and Latvian Needs analyses. This table also contains references to the accompanying section in the Flemish Needs analysisand the Latvian needs analysis.

1 Students

Common need	Flemish Need Analysis	Latvian Needs Analysis
Digital competencies/literacy	1.1 High digital literacy	1.1.2 Acquisition of advanced competencies and digital skills And 2.1.3 Development of current study courses
Digital inclusion	1.2 An inclusive digital transition	1.2 Digital inclusion
Flexible and adaptive use of digital environments	1.3 A flexible and adaptive system	1.2.1 There are more opportunities to study 1.2.2 Inclusion of students with special needs
Well-being and mental health of students	1.4 Attention for well-being	1.3 Well-being and mental health
Self-regulation and self-directed learning skills	1.5 The importance of self-regulation (and time to grow in this)	1.1.1 Introductory course, acquisition of self-directed learning skills
Communication, involvement and student participation	1.6 Importance of involvement and clear communication	Briefly mentioned in 1.2.1 There are more opportunities to study: communication in the digital environment And in 3.1.2 Policy planning documents and involvement of community groups

2 Course and curriculum design

2.1 Curriculum design & assessment

Common need	Flemish Need Analysis	Latvian Needs Analysis
Emergency remote learning in pandemic vs. designing education in the long term	2.1.1 'Emergency remote learning' versus well-considered blended education in the long term	2.1.1. Current situation and identification of trends
Development of study programmes should be based on pedagogical-didactical principles	2.1.2 Digitalisation is not an aim in itself: the pedagogical-didactical aspect prevails	2.1.3. Development of current study courses
Flexible and modular curricula	2.1.3 Towards a flexible, modular curriculum	Briefly mentioned in 2.1.3. Development of current study courses

Study modules on digital skills	2.1.4 Digital skills as part of the curriculum	Mentioned in 1.1.1. Introductory course, acquisition of self-directed learning skills; Mentioned in 2.1.3 Development of current study courses
Student assessment in the digital environment	2.1.5 A balance between physical assessment and digital assessment	2.1.4. Student assessment in the digital environment

2.2 Support and professionalisation

Common need	Flemish Need Analysis	Latvian Needs Analysis
Sharing/exchange/ mutual learning between educators	2.2.1 Sharing/exchange between educators	Mentioned in 2.2.1. Mutual learning and professional development of lecturers 2.2.3. Professional lecturer training centres/contact points
Support, time and recognition for educators	2.2.2 Time and recognition for educators	2.2.2. Support staff, system and time required
Need for targeted/specialised professionalisation of educators	2.2.3 Tailor-made professionalisation	2.2.1. Mutual learning and professional development of lecturers 2.2.3. Professional lecturer training centres/contact points
Purposeful system of professionalisation for educators	2.2.4 Diverse content with professionalisation	2.2.1. Mutual learning and professional development of lecturers; 2.2.3 Professional lecturer training centres/ contact points

3 Vision, policy and quality assurance

3.1 Vision and policy

Common need	Flemish Need Analysis	Latvian Needs Analysis
Vision, change management, and leadership	3.1.1 A vision at institutional level and leadership	3.1.1 The need for change management
Commitment, involvement and policy implementation at all levels	3.1.2 Commitment and involvement staff	3.1.2 Policy planning documents and involvement of community groups
Prioritise digitalisation at national level and develop policy	3.1.3 A coordinating framework at Flemish level	Mentioned in 3.1.2 Policy planning documents and involvement of community groups

Internationalisation and digitalisation	3.1.4 Internationalisation and profiling of Flemish higher education institutions	5.3. Digital processes of studies and internationalisation
Cooperation, exchange, and common understanding in higher education	3.1.5 Culture of exchange and cooperation	See 4.2.4. Resource sharing, also mentioned in 3.1.2 Policy planning documents and involvement of community groups

3.2 Quality assurance

Common need	Flemish Need Analysis	Latvian Needs Analysis
Role of digitalisation in the quality assurance system	3.2 Quality assurance	3.2 Quality assurance

4 Funding and infrastructure

4.1 Funding

Common need	Flemish Need Analysis	Latvian Needs Analysis
Specifically allocated funding and investments	4.1.1 Specific and specifically allocated funding	4.1.1. Planned investments in the period 2021-2027
Continuous basic funding for higher education	4.1.2 Basic funding or long-term funding	4.1.2. Current situation: formation of financing demand
Enough staff and well-being of staff	4.1.3 Enough staff & digital well-being of staff	Briefly mentioned in 1.3 well-being and mental health (mental health in academics) and in 2.2.2 support staff, system and time required

4.2 Infrastructure and resources

Common need	Flemish Need Analysis	Latvian Needs Analysis
Digital tools	4.2.1 Digital infrastructure	4.2.1. Premises and available digital tools
Availability and accessibility of infrastructure	4.2.2 Infrastructure in a wide sense (buildings, spatial design, scheduling, etc.)	Mentioned in 1.2.2. Inclusion of students with special needs (accessibility) Also in 5.4 digital campus
Administrative processes and systems	Briefly mentioned in 1.3 a flexible and adaptive system	4.2.2. Administrative processes in higher education institutions in the e- environment

Sharing of educational resources (materials, software, etc.)	Briefly mentioned in 2.2.1 Sharing/ exchange between educators 3.1.5 Culture of exchange and cooperation 4.2.1 Digital infrastructure 5.2 developers of educational hardware/software	4.2.3. Open educational resources 4.2.4. Resource sharing

5 Other themes

Common need	Flemish Need Analysis	Latvian Needs Analysis
Involvement of industry representatives in the development of study programmes	5.1 Employers/field	2.1.2. Involvement of industry representatives in the development of study programmes
Role of developers of hardware/software in digitalisation	5.2 Developers of educational hardware/software	Mentioned in 4.2.1. Premises and available digital tools
Role of local governments in digitalisation[15]	5.3 Local governments	/
Privacy, data security, and other regulatory/legal aspects	Mentioned in 3.1.3 A coordinating framework at Flemish level	5.1. Privacy and data security 5.2. Other aspects of law
Psychological acceptance of change	Briefly mentioned in 1.4 attention for well-being (resistance), in 2.2.2 time and recognition for educators (trepidation), and in 3.1.1 a vision at institutional level (change management)	5.5. Psychological acceptance of change

[15] This theme has not been identified as a common theme, since it was not discussed in the Latvian needs analysis.