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E-LEARNING IN EUROPEAN HIGHER EDUCATION INSTITUTIONS

**RESULTS OF A MAPPING SURVEY
CONDUCTED IN OCTOBER-DECEMBER 2013**

MICHAEL GAEBEL, VERONIKA KUPRIYANOVA, RITA MORAIS, ELIZABETH COLUCCI



EUA

European University Association

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November 2014

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Rita Morais, Elizabeth Colucci**

Contents

Foreword.....	6
1 Executive Summary.....	7
2 Introduction	13
3 About the survey.....	14
3.1 Survey goals and structure.....	14
3.2 The sample	14
3.3 Institutional profiles.....	16
3.4 Glossary.....	17
4 E-learning in European higher education	19
4.1 National and institutional strategies.....	19
4.1.1 National policies and strategies	19
4.1.2 Institutional strategies	22
4.2 Institution-wide use of e-learning and types of provision	24
4.3 Flexibility of online learning.....	27
4.4 Number of students engaged in e-learning	30
4.5 Use of e-learning in disciplinary and generic skills teaching.....	33
4.5.1 Preferred disciplines for e-learning.....	33
4.5.2 Transversal and cross-functional provision	34
4.6 Infrastructure and support	35
4.7 Support and incentives for students and staff.....	37
4.8 Institutional management and coordination.....	39
4.8.1 E-learning units	39
4.8.2 Role of senior leadership	41
4.9 Quality assurance	42
4.10 Real and intended benefits of e-learning	43
4.10.1 General experience with e-learning.....	43
4.11 Future prospects for e-learning: flexibility of provision, effectiveness and collaboration... 46	
4.11.1 Flexibility of provision and effectiveness	46
4.11.2 Prospects for collaboration.....	48
5 Institutional take-up of MOOCs in Europe.....	50
5.1 Institutional take-up and perceptions of MOOCs.....	50

5.1.1	Institutional take-up of MOOCs	50
5.1.2	Reasons for involvement or lack of interest in MOOCs	54
5.1.3	Initiating MOOCs	57
5.2	Institutional experience of MOOCs.....	58
5.2.1	Courses provided	59
5.2.2	MOOC platforms	61
5.2.3	MOOC languages of instruction	62
5.2.4	Participation and completion rates	64
5.2.5	Integrating MOOCs into the provision of teaching and learning	67
5.2.6	Validation of MOOC learning	67
5.2.7	Collection of data on MOOCs.....	69
5.2.8	Technical universities as a possible special case.....	70
5.2.9	Strategic priorities for the future.....	70
6	Conclusion: the urgency of bridging policy and practice in e-learning in Europe	71
7	ANNEX	74
A1	Participation in the survey by country	74
A2	Participating institutions.....	75
A3	Evidence of national strategies for e-learning	81
A4	List of tables and figures	91

Foreword

The emergence of Massive Open Online Courses (MOOCs) in 2012 has been presented by some in the media as a wake-up call to the higher education sector, and some even proposed apocalyptic scenarios for “traditional universities”. Once again, one could say! Indeed, in the 1990s, the end of brick-and-mortar universities was predicted as an inevitable consequence of the transformation brought about by the internet and other rapidly emerging ICT applications. But universities survived and thrived in this new environment. They embraced technology as a support for their administration and communication infrastructures as well as their teaching and research activities.

With the emergence of Massive Online Open Courses (MOOCs) it seemed that, beyond the bounds of the e-learning communities and their activities, generally, little attention had been paid to how information technologies (ICT) impacted higher education teaching and learning. There were voices pointing out that the rise of MOOCs was just one particular, albeit spectacular element, of the much broader agenda of digitalisation (i.e., e- and online learning), in which many universities have been involved for quite some time. While this is difficult to prove, the recent heated debates on the strategic importance of e- and ICT-based learning for European higher education, and predictions made about the future of higher education, revealed a lack of European-level data on e-learning in higher education.

It was for this reason that EUA decided to conduct this survey, in order to be in a better position to contribute to ongoing policy discussions, and to support our members in their efforts to further enhance and promote innovation in learning and teaching.

The results of this survey are surprising. Apart from a few notable exceptions, almost all institutions are involved in some forms of e-learning. It seems that there has been no sudden and disruptive change, but rather that a gradual adaptation has taken place, which continues at different paces and scales across Europe. Nevertheless institutional responses to MOOCs do suggest that European higher education institutions are capable of responding swiftly to new strategic challenges.

The transformative potential of e-learning will require further studies. Fortunately, it appears that several European and international surveys are underway and will be available in 2015. It is to be hoped that they will help to complete the picture. We also hope that this e-learning survey will contribute to the broader debate that EUA has launched on learning and teaching innovation. EUA intends to use the present study as a point of departure for further work with members and partners who contributed to the survey. On the basis of concrete case studies, we hope to be able to refine the analysis of what works and what does not, in this new and exciting field.

Lesley Wilson

Brussels, 30 October 2014

**Secretary General
European University Association**

1 Executive Summary

The present study on e-learning intends to contribute to closing a data gap and to stimulate the discussion on the further development of national and European policies on the issue and to support its systematic institutional take-up. It draws upon a survey conducted by the European University Association between October and December 2013. **249 answers from higher education institutions, in their majority universities, from 37 European countries** (EU and wider Europe), were received. While the sample is self-selected, it represents almost one third of EUA's institutional membership.¹

The survey asked about the type of e-learning institutions use, their experiences in this area and their expectations for the future. It considered **blended and online learning in various formats**. Given the strong interest in **Massive Open Online Courses (MOOCs)**, a large section of the report is dedicated to this issue.² The survey also posed questions regarding support structures and services, intra-institutional coordination, quality assurance and recognition.

Institutional take up of e-learning

The results of the survey show – with very few exceptions – that **practically all higher education institutions of the sample have started to embrace e-learning**. Most of the surveyed institutions are using **blended learning (91%)**, integrating e-learning into conventional teaching, but surprisingly **82% of institutions also indicate that they offer online learning courses**. Less frequent, but seemingly also on the rise, are other forms of provision such as **joint inter-institutional collaboration** and **online degree courses**. **Online examinations** are likely to become more widely used for all students in all or most disciplines, also for conventionally taught courses. Besides **pedagogical and economic motives**, the institutions refer to a growing **need for flexibility of time and place**, and **better use of resources, benefiting both residential students and a wider range of professional and other lifelong learners**.

Potential for mainstreaming and diversification of provision

While practically all institutions are involved in e-learning in its various forms, the level of mainstreaming varies considerably: only half of the institutions indicate that e-learning is implemented throughout the institution. Less than one third of institutions involve all or most of their students in e-learning. Particularly frequent use of e-learning is reported in such disciplines as business and management, education and teacher training, engineering and technology subjects; however, it is rarely applied in law and arts. Thus, only around 20% of institutions indicate using it in all disciplines. In every second institution e-learning is also used for transversal and entrepreneurial skills training, and in two thirds also for language teaching, but again, use across the entire institution is not very common.

¹ First results from the forthcoming TRENDS 2015 study (data collection in 2014), which addressed some of the same questions to an additional 449 institutions show largely convergence with the present study.

² A definition of e-learning and other terminology used is provided in section 3.4 on p. 5. Terms have been chosen deliberately wide and inclusive, in order to capture the full range of initiatives in place or under development.

The inconsistent and patchy implementation of e-learning throughout the institution could be seen as a cautious exploration: initiatives are introduced and piloted by individual faculties and staff members, and once found feasible, robust and useful, could be mainstreamed at the faculty and institutional level. How systematic this “institutional innovation path” is depends on many factors such as the quality of the leadership, the governance model, but also the resources at hand. Generally, there is some indication that more horizontal implementation is on the way, as for many questions, a relatively large number institutions state that they plan to introduce new forms of provision. However, at this stage, there is no clear evidence that this is going to happen, and due to a lack of longitudinal data, no historical comparison is possible.

Institutional strategies, governance and management

While e-learning activities are often driven by individual departments or even individual academics, faculty e-learning strategies are not very frequent (13.8%), but nearly half of the surveyed institutions have an institution-wide strategy in place, and one fourth plans to develop one in the future. This and the fact that institutions with e-learning strategies do not necessarily present a broad mainstreamed e-learning offer, suggest that this is a recent development. Strategies may not yet have achieved their full impact but can be expected to guide and coordinate the process of adaptation. In this regard, it is interesting that three quarters of the institutions indicate coordination of e-learning activities throughout the institution; significantly, the survey responses have been provided by senior leaders (vice-rectors, heads of e-learning centres) in charge of e-learning or the rectors’ special advisers at 84% of the institutions.

E-infrastructure and support to students and staff

In order to ensure successful learning and teaching, institutions would have to provide solid infrastructure and also support to students and staff. Over 80% of the respondent institutions indicate that they use **digital courseware, online repositories for educational material, tools and management systems** for content development and course management and **student portals**, either throughout the entire institution or at some faculties. Nearly all institutions provide students with **email accounts, access to Wi-Fi, computer rooms** and **online libraries**. Over 80% of the surveyed institutions provide **campus licenses for software, repositories for course and study materials** and **online course catalogues**, and rely on **social media** to communicate. Almost 65% of institutions report the use of online examinations for all or some students, with a further 9% planning to introduce them. Online examinations seem set to become more widespread.

The vast majority of institutions indicate that they provide **specific student support for e-learning** and **staff training**; one third provide **incentives to staff**.

Evidently, some of these developments cannot be seen exclusively in the context of e-learning but are part of the broader digitalisation trend, particularly in the communication and administration of the institutions. Thus, the use of institution-wide data collection, comprising administration and teaching, could be aspects that would deserve further attention.

Almost no differences between types of institutions - and no explicit country trends

A detailed analysis of the responses suggests certain differences between different types of institutions on some of the questions. However, contrary to expectations, technical universities or open universities are not always leading in ICT-supported teaching or in digitalisation.

Also, while the varying degrees of general e-development in European countries are likely to impact also its education sectors, this does not seem to result in clear national e-learning patterns. In some countries, national policies and strategies for e-learning in higher education are just about to be developed, but where they exist already, they are often not very clearly profiled and seem to enjoy only limited visibility among higher education institutions.

Unsurprisingly, there are striking differences, on how and to what extent individual institutions of the same type and from the same country approach and implement e-learning. The reasons for this are not clear. They may have to do with the profile and mission, availability of resources and access to additional funding, the focus on certain subject areas, the type of students they attract, and different stages of experience in e-learning and paces of technology adoption, also due to openness of staff and their particular skills. However, the fact that most institutions already have e-learning in place and have acquired hands-on experience and a strong trend towards both institutional strategies and institution-wide coordination suggests that European and national policies and support programmes would find active responses.

Quality assurance

Apart from a few initiatives and labels developed by e-learning networks, it seems that e-learning did not receive much attention by quality assurance (QA) in the past. But as its volume and impact within institutions is increasing, one third of the responding institutions state that e-learning is considered in their quality assurance approaches, and nearly one fourth (23%) that their national QA agencies would give special consideration to e-learning. In addition, around one third of respondents report that QA of e-learning is currently under discussion, both at institutional and system level. Because there was no follow-up question dedicated to the issue, how this is done exactly remains an open question. As e-learning can take very different shapes, depending on the approach, the academic disciplines, and also may involve external partners (other institutions or non-university partners), this is definitely an issue that would deserve further investigation.

Benefits of e-learning

The respondents have no doubts about the value of e-learning. Three quarters of the institutions surveyed acknowledge that e-learning can change the approach to learning and teaching, and 87% view it as a catalyst for changes in teaching methods. Amongst other positive features, they endorse its potential for enhancing learning in mass education settings ("It helps instructing larger numbers of students, and also enables them to collaborate with each other").

But while only 8% state that they are not certain about the general benefit of e-learning, opinions remain divided on some of its more specific pedagogical merits: for example, 45% are either not certain of the benefits of the flipped classroom, or negate them. Likewise, about half of the respondents either think that e-learning does not improve the quality of learning and teaching, or are not sure that it does. Interestingly only a fraction of respondents are outright negative on these

issues, whereas a relatively large number appear to be indecisive. This could have its reason in the fact that these approaches are still new, and require further impact assessment and research; but respondents also point to specific conditions for the success of e-learning, such as the associated time to introduce it (76%), cost factors (43%) and the necessary commitment of staff.

Whatever the challenges, these do not constrain the main motivation of institutions for developing e-learning. The motivations include, in the short and long term, flexibility of learning provision, enhanced efficiency of classroom time, and more and better learning opportunities for distance-learning and resident students. In addition, e-learning is perceived by the majority of institutions (70%) as a means for collaborating within the institution, and with other international higher education institutions. Less importance is given to collaboration with institutions in the same country, employers, and private education providers.

Massive Open Online Courses (MOOCs) – still a hot topic in Europe

MOOCs are still of high and seemingly growing interest at European universities. At the time of the survey, only 31 of the responding institutions (12% of the sample), actually offered MOOCs and some of them were just about to launch them. But almost half of the 238 institutions that did not offer MOOCs indicated their intention to introduce them. This is further confirmed by the fact that one third of all the institutions had a formal position on MOOCs – a positive one for the majority – and a further 42% intended to develop one. There is no convincing correlation between taking up MOOCs, and a particularly strong engagement in other forms of e-learning. However, technical universities were more likely, in the small sample of institutions, to already have MOOCs.

The initiation of MOOCs was usually attributed to institutional leadership, in collaboration with individual staff members or the e-learning structure. For already existing MOOCs, external factors seem not to have played any role. However, in some countries, external funding incentives were important to institutions that were intending to develop MOOCs at the time of the study.

Motives for MOOCs

The motives for developing MOOCs are the same among institutions which already had them and those intending to have them: international visibility is by far the most common motivation followed by student recruitment. Other prominent motivations are the development of innovative teaching methods and rendering learning more flexible for the institution's own students. Some institutions seem to use MOOCs as a laboratory, in order to develop and test their pedagogical methods and teaching content. These motivations are restated, when institutions are asked for their MOOC goals for the future. An additional goal is to establish partnerships with other institutions – less so with other partners such as industry. Reducing costs and generating income are hardly ever mentioned.

Reasons for not developing MOOCs

The most frequently given reasons **for not developing MOOCs** are not necessarily of a principled nature. Almost half of the institutions indicate that no decision has been taken yet, and one third refer to financial restrictions. One fifth also indicate that they still lack relevant information. The latter sounds surprising, given the strong media coverage. However, press reports, at that time

principally in the US media, did not necessarily tackle the strategic and practical issues European institutions needed to know about.

However, more than a quarter signals that they prefer other forms of e-learning. They question the usefulness of MOOCs for their students and express reservations regarding the educational and pedagogical approach and concerns about academic recognition. While a considerable number of institutions (42%) reported that their staff would have “mixed feelings” about MOOCs, this was not necessarily stopping them from developing MOOCs.

Features of European MOOCs

The institutions in the sample typically offer one to five MOOCs; hence, they are clearly experimenting with this new mode of delivery. In their majority the institutions are located in western Europe, with Spain counting for the largest number of MOOCs and of institutions providing them. MOOCs built their reputation on their capacity to engage an unlimited number of learners from around the globe. However, while a few MOOCs in the survey sample peak at an enrolment level of tens of thousands, the average participation stands at just a few thousands. And while some of the institutions indicate enrolling only or mainly international learners on their MOOCs, the vast majority of cases display a varying mix of international and domestic learners including the institutions’ own students.

This is further confirmed by the fact that some institutions indicate that that they use MOOCs for blended learning, and – quite in contradiction to the original MOOC concept – perceive a growing pressure to recognise learning outcomes and award credits, both for their own and MOOCs delivered by other institutions. One third of the universities indicate awarding credits for their own MOOCs. This may also explain why the completion rate is on average between 10% and 20%, but varies for individual courses between 5% and 95%. Some institutions may be targeting a global audience with the interest of generating high visibility and high participation numbers, yet with little concern for completion rates. Others seem to be targeting their own students, and thus focus on support measures to enhance completion.

Apart from courses in French and Spanish, which have international target audiences, most institutions that try to extend their global reach offer their MOOCs in English, which is also one of the languages of instruction at institutions in countries where it is not the native language (e.g. Denmark, the Netherlands and Switzerland). Some institutions had different MOOCs in different languages, obviously strategically tailored to demand in certain parts of the world. Overall, linguistic diversity is an interesting feature of European MOOCs, and apart from the above-mentioned languages, institutions from the sample also offered MOOCs in Catalan, German and Italian – either ignoring the conceptual goal of massive international participation, or focusing on diaspora groups and language learners in other parts of the world.

For dissemination purposes, institutions seem to depend largely on US platforms for their international visibility, although European platforms organised around nationality, language and funding support are emerging. In addition, some institutions use their own platforms.

Prospects for MOOCs in Europe

Given the small sample (31 institutions) and the fact that the experience with MOOCs was relatively recent at the time of the survey, it would be premature to draw any further conclusions on MOOC. While all institutions confirm that they will continue their MOOCs, only a few plan to significantly increase their numbers. Similar to e-learning in general, they also confirm their interest in partnering with other institutions.

Around two thirds of the institutions indicate that they gather data on their MOOCs, and all of them express interest in enhancing data collection. These pioneers may provide a model to other institutions that could be expected to follow their example. If gathered and published, these data sets could become an important source of information, provided that they follow comparable definitions and parameters.

2 Introduction

The present survey report is an attempt to provide an up-to-date evidence-based account of how – and how far – e-learning³ has been taken up at European higher education institutions.

The justification for the survey is in our view self-evident. There has been continued hype about Massive Open Online Courses (MOOCs) since 2012 was dubbed “the year of the MOOC”.⁴ At the same time, it has become clear that many critical issues concerning MOOCs are also at the heart of the broader debate on e-learning and technology-enhanced learning, and on changes in teaching and learning in general – a debate which, some would argue, is long overdue.

Until recently, e-learning has attracted remarkably little attention beyond the bounds of its dedicated communities and projects. For example, it has not been prominent in Bologna Process discussions and only became a focal point of EU education policy in September 2013, with the publication of the “Opening up Education” Communication by the European Commission.⁵

Studies on e-learning in higher education are usually conducted at national and classroom level, focusing on legal, technical and teaching issues. However the present survey is thought to be the first European-level study of e-learning at universities, although it follows a Europe-wide study on e-learning at schools conducted in 2013.⁶

The results of our own study indicate clearly that in the past decade higher education provision has undergone an unquestionable if unspectacular change. This is the entry of e-learning into the physical confines of universities, with the result that technological innovation is now a key factor tending to transform the very nature of teaching and learning in higher education and to extend its coverage well beyond the bricks and mortar of individual institutions.

Naturally, the first survey of e-learning at European higher education institutions can only provide a snapshot of current e-learning activities. The lack of previous studies and longitudinal data preclude any immediate identification of development trends. However, besides the pressures to innovate resulting from technology and social and economic change, there is strong evidence from our survey that action by individual faculties, departments and teachers may also encourage technical approaches to learning and teaching that are potentially conducive to innovation within universities.

While certain key qualitative issues – such as the precise nature of pedagogical changes and their impact on teaching staff and students – have been addressed, further in-depth studies will be required to explore them thoroughly. This will be the task of future research and project work that EUA is ready to undertake with its members and partners.

³ For the purpose of this survey, the term e-learning is used as a generic expression for all learning which is based on the use of information and communication technologies (ICT) to support learning and teaching. For more detailed definitions of this and other terms, see section 3.4, p. 6.

⁴ *The New York Times* (in November 2012).

⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0654&from=EN>

⁶ <http://ec.europa.eu/digital-agenda/en/survey-schools-ict-education>

We should like to thank colleagues at 249 higher education institutions, who took part in the survey.⁷ Thanks are also due to all colleagues who kindly took time, shared their insights and provided comments. Special thanks to Andrew Miller and Stephanie Friedrich, for their contribution and support to this, and many other studies and projects over the past years.

3 About the survey

3.1 Survey goals and structure

The aims of the survey have been twofold.

The first part (covered by questions 1 to 21) has sought to map the capacities of European higher education institutions for e-learning. It examines how far e-learning has been mainstreamed to benefit many more students and cover a wider range of disciplines, and aims at a better grasp of perceptions regarding its impact on learning and teaching.

The second part of the survey (covered by questions 22 to 39) is devoted to Massive Open Online Courses (MOOCs), given the current paucity of information on their impact and development in Europe.⁸

Both parts are reflected in the structure of this report, in which section 4 is devoted to e-learning, and section 5 to MOOCs.

3.2 The sample

The survey was conducted online from October to December 2013. The survey questionnaire was published on the EUA website and in the EUA Newsletter, inviting all European higher education institutions (henceforth referred to as “institutions”) to take part.

The invitation was sent by email letter directly to the heads of all 800 EUA member institutions in 47 countries. They were asked to forward it to the colleagues at their institution who were responsible specifically for e-learning strategies. They were also asked to consider the situation of e-learning from the overall institutional perspective.

The posts or positions occupied by personal respondents at their institutions are of further interest, with regard to senior leadership responsibility for e-learning and its coordination at institutional level, as described in section 4.8.2, p. 41.

A total of 249 institutions (of which 241 are EUA members) from 38 countries and higher education systems completed the survey.

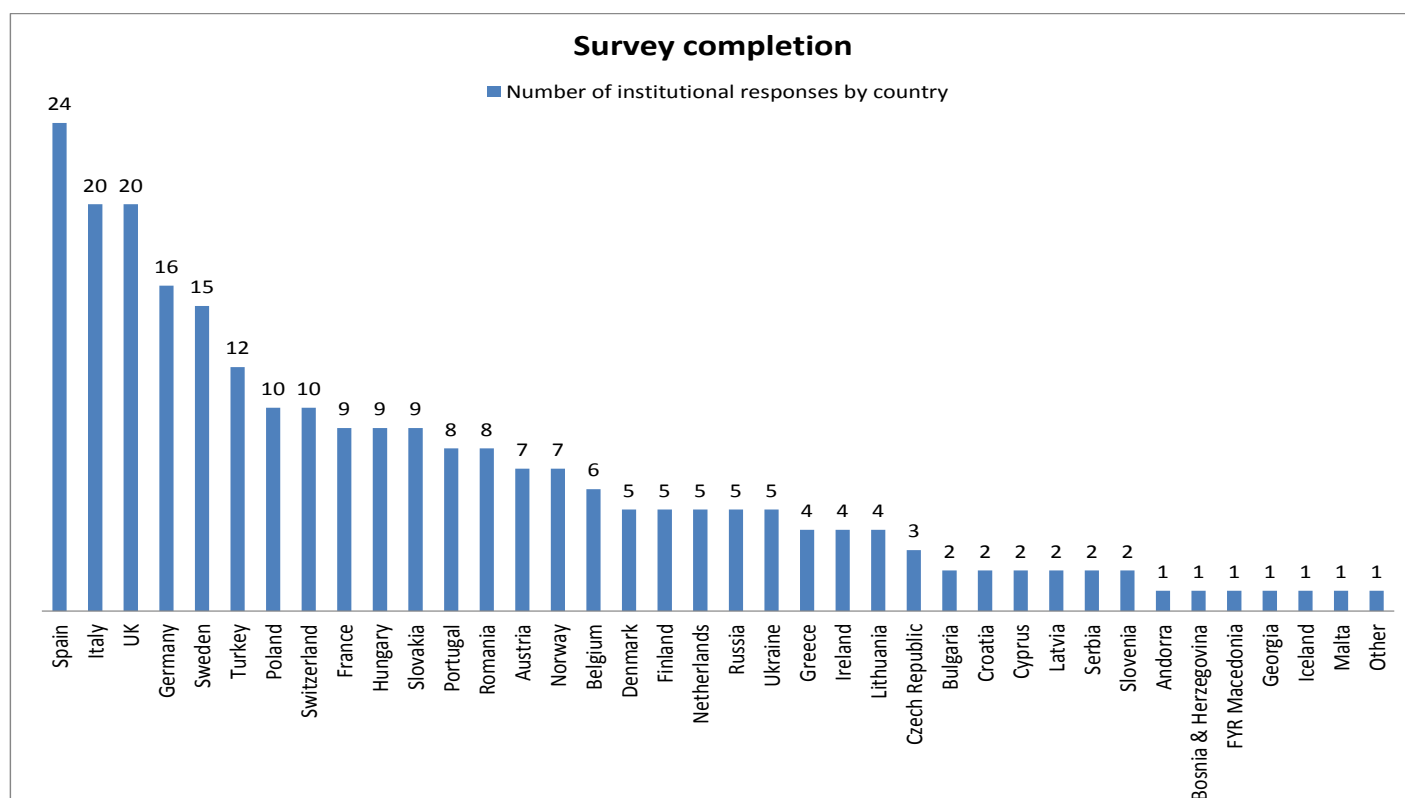
⁷ For a list of institutions, see p. 39.

⁸ For a copy of the questionnaire, please refer to www.eua.be/Libraries/Higher_Education/EUA_E-learning_survey.sflb.ashx

As the number of respondents varies from question to question, the percentages have been calculated with respect to the maximum possible number of responses (which is usually 249, although on some follow-up questions it might be lower).

For some questions involving a country breakdown, countries with very few responses (fewer than three, four or five, depending on the question) are not shown. Neither is there any specific reference to devolved systems (such as those in Belgium, Germany, Spain, Switzerland and the UK), given the relatively few institutions concerned.

Figure 1 - Number of institutional responses by country



One has to bear in mind that the sample is self-selected, which could explain why nearly all institutions that took part in the survey are engaged in e-learning. One might surmise that those which are not, may have decided not to respond, so there is no guarantee that the sample is fully representative. However, it gives EUA a first indication of e-learning activity among its membership – which in most EU countries corresponds to most or all of their universities – as almost one third of its current university members (241 out of 777) responded to the survey. The next EUA *Trends* study will offer further insights into this matter, as it reiterates some of the issues concerned in a thematically much broader questionnaire.⁹

⁹ The questionnaire for *Trends 2015* was sent out in January 2014. Its results will be published in April 2015, in time for the Bologna Ministerial Conference in Yerevan, Armenia, in May.

3.3 Institutional profiles

The survey also explored whether there is a correlation between institutional profiles and the approaches to e-learning. Analysis of its results differentiates between the different types of institution indicated in Table 1.

Table 1 - Respondents to the e-learning survey by institution

Type of higher education institution	Number of institutions	% in the sample
Comprehensive university	159	64
Specialised university (covering institutions for teacher training, medical, music and art schools, and specialisation in language(s), agriculture/life sciences or similar subjects, and with one specialised research institute)	38	15
University of applied sciences (college-type or professional education institution which does not award PhDs, or does so in only a few disciplines)	21	9
Technical university (as specified in the name)	26	10
Open university (an open or distance university that defines itself as such)	5	2
TOTAL	249	100%

Comprehensive universities are the largest group (64% of the sample). In responses to some questions, interesting differences can be observed between different types of institution, and in particular specialised universities (15%) and universities of applied sciences (9%).

The classification of institutions in the sample is only a rough one, as it covers a very wide variety of institutions and systems in which the distinctions between different types of 'university' are often blurred. For example, many specialised and technical universities, particularly in Eastern Europe, have now broadened their subject provision and become similar to comprehensive universities. Universities of applied sciences also comprise a very varied group, with some institutions oriented towards professional education, and others that are research-intensive and thus quite similar to comprehensive or specialised universities. The five open universities which took part in the survey represent a particular case, as they might reasonably be expected to use ICT for learning purposes very intensively and in more sophisticated ways.

Table 2 - Respondents to the e-learning survey by size of institution

Size of higher education institution (student headcount)	Number of institutions	% in the sample
Small (0-7 500 students)	41	17
Medium (7 500-24,999 students)	131	53
Large (25,000-49,999 students)	54	22
Very large (over 49,999 students)	19	8
Unknown	4	2
TOTAL	249	100%

Furthermore, the sample includes institutions of various sizes ranging from small to very large in terms of real student enrolment.¹⁰ It is dominated by medium-sized institutions, with 7 500-24,999 students enrolled at over half of those surveyed (53%).

Analysis of the sample by type of institution and size yields several findings. **Comprehensive universities** – the biggest category of institutions in the sample – primarily consist of medium-sized and large institutions (55% and 27%, respectively). Thus medium-sized comprehensive universities account for 35% of all institutions in the sample. **Specialised universities** are almost entirely – and equally – represented by small and medium-sized institutions (45% and 47%, respectively). The majority of **technical universities** (65%) are medium-sized, while most universities of **applied sciences** in the sample are small (52%). Three of the five **open universities** are very large, while the remaining two are medium-sized and large respectively.

Finally, the sample comprises a few private institutions. While one might surmise that they have a particular approach to e-learning, they are too few to be considered as a separate statistical group.

3.4 Glossary

Survey respondents have been provided with the following glossary:

E-learning

The term **e-learning** in the present survey is a generic expression for all learning involving the use of information and communication technologies (ICT) to support both learning and teaching. Its meaning here, therefore, is normally synonymous with **ICT-based learning**.

The term may refer to the use of various technologies and tools to support learning in different contexts, including face-to-face settings and distance learning, separately or in combination, in which case **e-learning** is usually called **blended learning**.

Blended learning

A pedagogical model combining face-to-face classroom teaching and the innovative use of ICT. Experts often associate **blended learning** with the redesign of the educational environment and learning experience, thus contributing to the creation of a “community of inquiry”.

Online learning

A form of educational delivery in which learning takes place primarily via the Internet. **Online learning** can serve those who are geographically distant and without access to traditional classroom education, so it includes “distance learning”. However, distance learners are not alone in benefiting from **online learning**, which is also commonly part of e-learning in mainly campus-based study programmes. In such cases, it may be referred to as **blended learning**.

¹⁰ Institutional size was assessed on the basis of EUA student headcount data collected from various sources (directly from members, institutional websites, etc.) and with reference to the institutional size categories already used for EUA membership.

MOOC

MOOC stands for “massive open online course”: *massive*, since there is generally no participation limit, so thousands can enrol for the same course; *open*, as courses may be accessed free of charge by many different kinds of learners who normally register with their provider without having to satisfy any formal entry requirements; and *online* because the whole course, including its assessment and additional services, is delivered online (even though personal contact with tutors or other participants is possible).

Distinguishing means and types of provision

It is not always easy to **distinguish different means and types of provision**: an online course may be part of an online degree or could just be non-degree-earning distance learning provision. But it could also be part of a **blended learning** degree, in which students would normally attend courses on campus, but would not have to attend classes for this particular course.

The survey refers to **blended learning** (which may include **online learning** but which would also require learners to be regularly present on-campus) and **online learning** (which would only require on-campus presence for a short residency period, if at all).¹¹

Sources:

- Garrison, D. Randy, and Vaughan, Norman D., 2008, *Blended Learning in Higher Education: framework, principles, and guidelines* (San Francisco, John Wiley & Sons).
- European Distance Education Network (EDEN), 2001, *Higher Education Open and Distance Learning Knowledge Base for Decision Makers* (A study prepared for UNESCO, Information Society Division).
- Wikipedia article on e-learning <http://en.wikipedia.org/wiki/E-learning>

¹¹ We have avoided the concept of “distance learning” which, although it may rely on various means and procedures, including the posting of learning materials, now mainly involves online provision.

4 E-learning in European higher education

The survey assesses from various angles the present role of e-learning in European higher education. It makes two key assumptions:

1. **National and institutional strategies** are expected to indicate the level of policy awareness of ICT in teaching as regards the potential to stimulate and enable measures for institutional e-learning. The aim of the survey has been to gauge the **pervasiveness of e-learning within institutions**, its most common **applications**, and its dedicated **resources and services**.
2. The survey accepts that “blended learning” and “online learning” can involve very different measures, and does not attempt a detailed technical differentiation, which is the task of case studies (see also section 3.4, p. 17). Given the widespread assumption that university teaching is lagging behind in the use of ICT, we have aimed instead to determine how far institutions have embraced ICT and to identify the foremost development trends concerned. To do so, we have selected as our main indicators, first, the **extent to which an institution mainstreams e-learning**, either practising it across the board, or **only in some departments or thanks to just some teachers**, and the **number of students** involved; and, secondly, the extent to which e-learning is a central consideration in **institutional governance and management** and both **internal and external quality assurance (QA)**.

The feedback from institutional representatives on the **impact of e-learning** and **prospects for its future development** should also help to inform the current debate on the enhancement of learning by means of better institutional practice and the development of European policies.

The detailed findings of the survey are now set out below.

4.1 National and institutional strategies

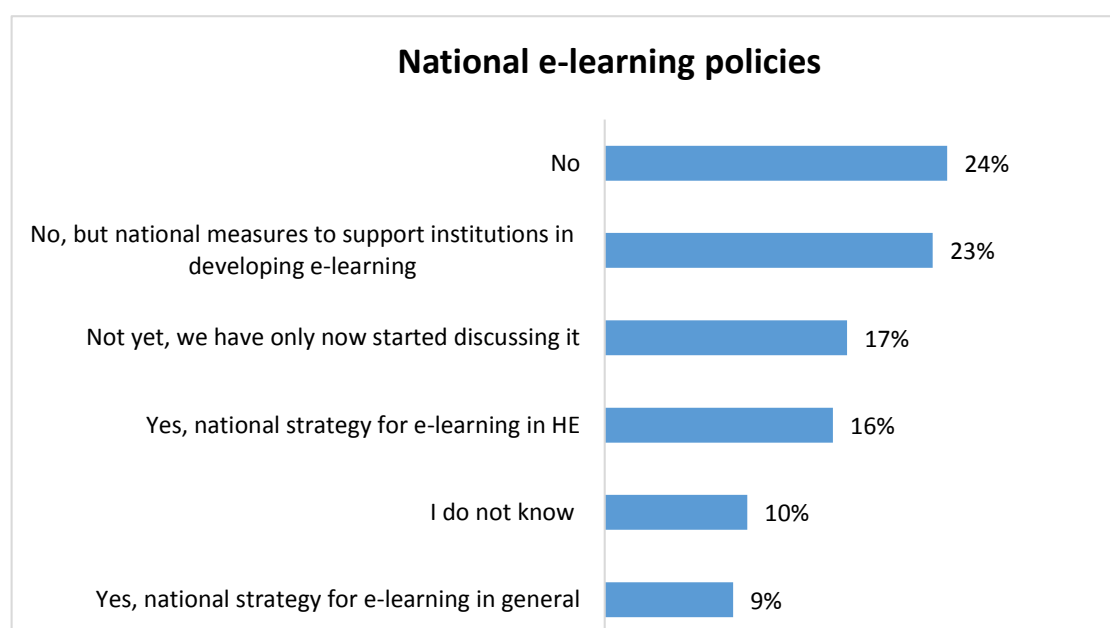
The existence of government and institutional strategies is not only a sign that attention is paid to e-learning, but also suggests that e-learning initiatives are becoming more coordinated and sustainable.

4.1.1 National policies and strategies

Despite some newly emerging initiatives, national policies and strategies for e-learning in higher education are not yet widespread, and seem to enjoy only limited visibility among higher education institutions.

Given the potential of e-learning in higher education, and its broad range of possible implications for institutions and learners, governments might be expected to take a keen interest in it. One aspect of the survey thus concerns existing national frameworks for e-learning, including policies, strategies and other support measures, and their visibility among institutions.

Figure 2 - Q3: In your country, is there a policy or strategy for enhancing e-learning that specifically addresses higher education?



A quarter of respondents stated that their countries have developed a national policy or strategy for e-learning, either specifically for higher education (16%), or for education in general (9%). In addition, 17% of respondents reported that the introduction of a nation-wide e-learning strategy is under discussion. Only one third said that there is no policy, or that they were not aware of one.

Respondents from the same country often differ in their answers to the question about the existence of national e-learning policies, probably for a variety of reasons as some of their comments and explanations suggest:

- National strategies and specific actions are often closely linked and may overlap or even be identical. And respondents may have differed in their understanding of what a policy or strategy implies. For instance, some of them considered that dedicated funding programmes, laws or external quality assurance systems are policies for e-learning, whereas others just answered “no” or referred to “national-level support measures”.
- Respondents from the same country differed in their judgement on whether national strategies for e-learning in general existed and were relevant to higher education.
- Some very long-standing strategies and policies have become obsolete, while others have only just been launched.
- Some countries (e.g. Belgium, Germany, Switzerland and the UK) have devolved higher education systems – a situation not covered by the questionnaire – which may have resulted in different responses from the same country.

Table 3 - Q3: In your country, is there a policy or strategy for enhancing e-learning that specifically addresses higher education?

Possible responses	Number of countries/higher education systems	Countries/higher education systems
Yes	4	Bulgaria, France, Slovenia,* Northern Cyprus*
No, but there are national-level support measures	7	Croatia, Czech Republic, Germany,** Greece, Ireland, Malta, Netherlands
No, but discussions have started	6	Bosnia and Herzegovina, Belgium,** Georgia, Latvia, Serbia, Sweden
Dissimilar responses (institutions from the same country providing different answers)	17	Austria, Denmark, Finland, Hungary, Italy, Lithuania, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain,** Switzerland,** Turkey, UK,** Ukraine
No	5	Andorra,* Cyprus,* FYR Macedonia,* Iceland*

* There was only one answer from this country

**The answers received from this country could differ because responsibility for education is devolved.

The above issues are explored in the Annex A3, p. 81, which provides an overview of respondent references to national strategies and actions.

The impression gained overall is that, despite the potential importance of e-learning in higher education for European national governments, it may not yet have received sufficient attention in their policies, as emphasised in the European Commission Communication of 26 August 2010 on a “Digital Agenda for Europe”.¹² At the same time, the results of our survey indicate that a new set of policies and strategies is under development in some countries, while in others they already exist but are not yet sufficiently promoted or visible.

It is revealing that no up-to-date overview or comprehensive literature on European national strategies and initiatives for e-learning yet exists. Given the greater attention paid to it in the past two years, and as emphasised in the European Commission “Opening up Education” Communication and through funding support from the EU *Horizon 2020* programme and the Structural Funds, rapid changes can now be expected in this field. Indeed, e-learning could become an area of intergovernmental exchanges and knowledge-sharing, with special concern for the experience of those countries that launched e-learning initiatives about a decade ago. Another aspect worthy of attention is the opportunity for greater policy convergence among European countries on matters such as the technical and legal aspects of e-learning, given that for most of them these are fairly novel issues in policy making. While they are to be taken forward by the European Union, they should also be addressed in the Bologna Process with its wider membership of 47 countries.

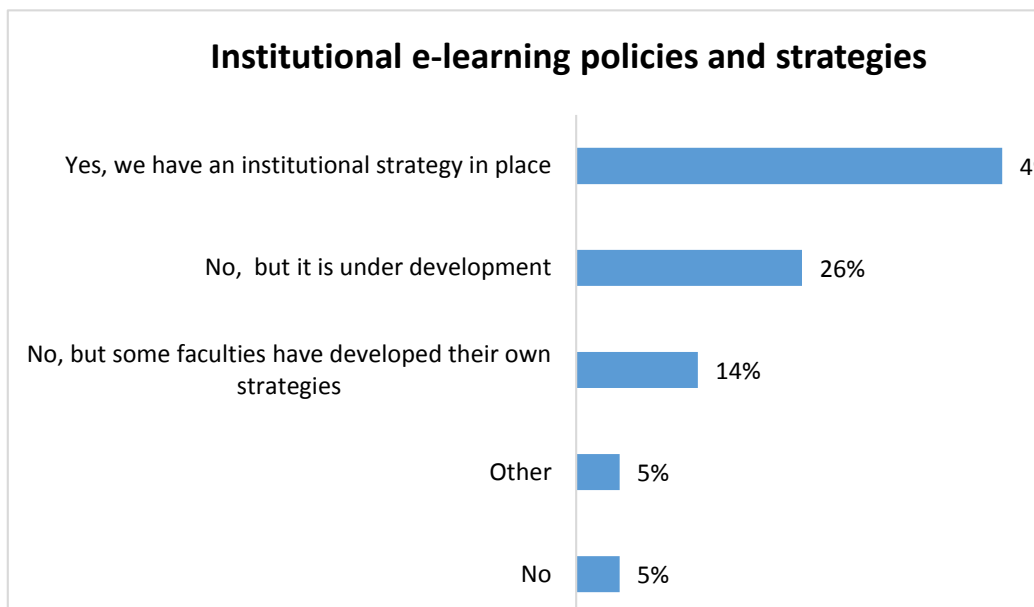
¹² Action 68 of this Communication states that “... Today eLearning is not sufficiently present in Member States’ education and training policies...”: <http://ec.europa.eu/digital-agenda/en/pillar-vi-enhancing-digital-literacy-skills-and-inclusion/action-68-member-states-mainstream>

4.1.2 Institutional strategies

The results confirm a strong trend towards institutional strategies for e-learning. Half of the respondent institutions have already established such a strategy, and a further 26% are preparing one. Relatively few institutions (14%) have strategies at only faculty level.

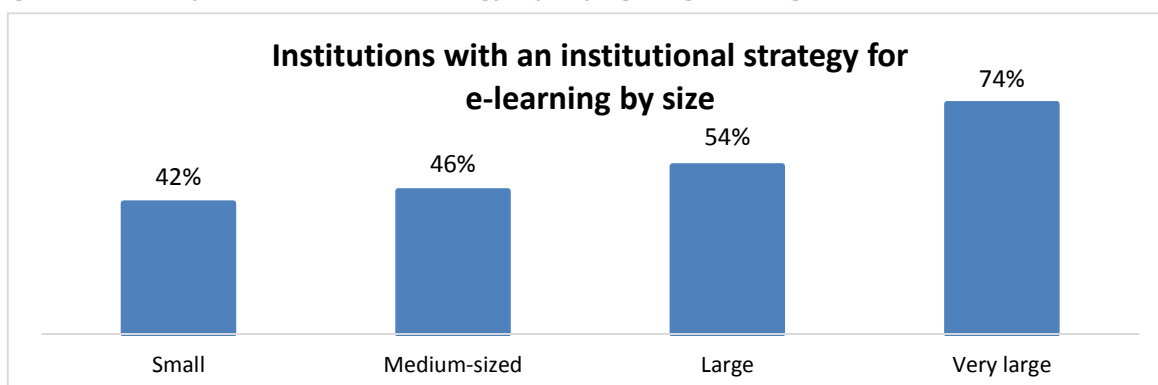
Given the diversification of institutional aims and the growing importance of comprehensive strategic approaches, it makes sense to explore whether and how the emergence of e-learning is governed by institutional strategies.

Figure 3 - Q4: Does your institution have a strategy or policy regarding e-learning?



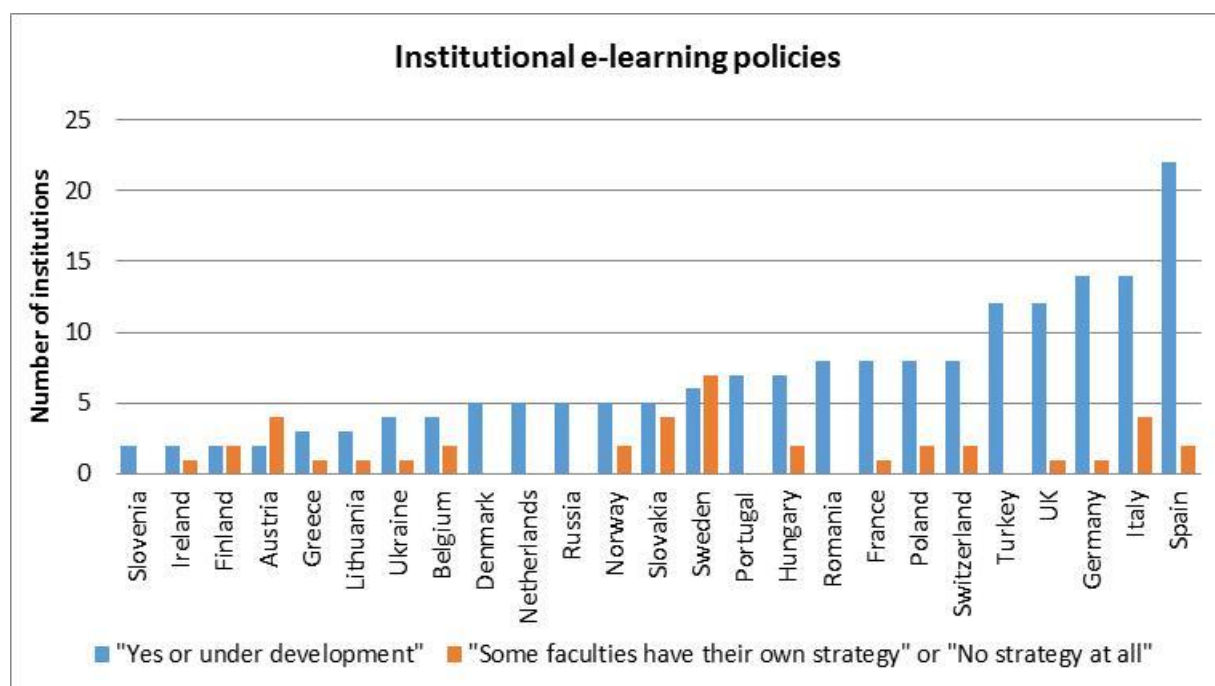
The vast majority of respondent institutions (89%) have an institutional or faculty-level strategy, or are currently preparing one. Nearly half of the institutions said they have an institutional strategy (49%), while only 14% reported the existence of faculty-level strategies. Just over a quarter (26%) said that they are currently developing a strategy. Larger institutions are more likely to have an institutional e-learning strategy or policy in place. Thus, as shown in Figure 4, only 42% of small institutions (0-7 500 students) have a strategy for e-learning compared to 74% of very large ones (over 49,999 students). As regards types of institutions, universities of applied sciences say more often that they have a strategy. They are followed closely by comprehensive universities and, less frequently, by technical and specialised universities.

Figure 4 - Q4: Does your institution have a strategy or policy regarding e-learning?



The figure below shows the distribution of institutions with or without a dedicated e-learning strategy, in each country that submitted at least four responses.

Figure 5 - Q4: Does your institution have a strategy or policy regarding e-learning?



The 13 institutions which said they have no institutional strategies are widely spread geographically, in Austria, Belgium, Estonia, Finland, Norway, Poland, Sweden and the UK. The fact that some institutions in a given country have a strategy for e-learning while others do not, suggests that the decision to develop one is theirs alone, rather than the outcome of any national higher education strategy or policy.

The results point to an apparent link – though not a strong one – between the adoption of e-learning strategies and the volume of e-learning activities (see section 4.4, p. 30). It is thus reasonable to assume that some institutions have adopted their strategies fairly recently, and have not yet developed a strong portfolio of e-learning activities. On the other hand, institutions may have long-standing and well developed e-learning activities, but no dedicated institutional strategies.

This last observation would explain the relatively few strategies at institutions from Finland and Sweden, as both countries are generally associated with substantial e-development and widespread use of both e-learning and online learning.

Experience from other areas of institutional development, such as internationalisation and lifelong learning, suggests that strategies will help to enhance and mainstream e-learning throughout individual institutions as a whole. Strategies can also help institutions to offset the negative effects of change, such as duplicated action, competition between different parts of the same institution, and investment in incompatible technologies. Indeed, provided that they are underpinned by action plans and get enough staff and funding, they should further communication both within institutions and with national bodies and other external partners.

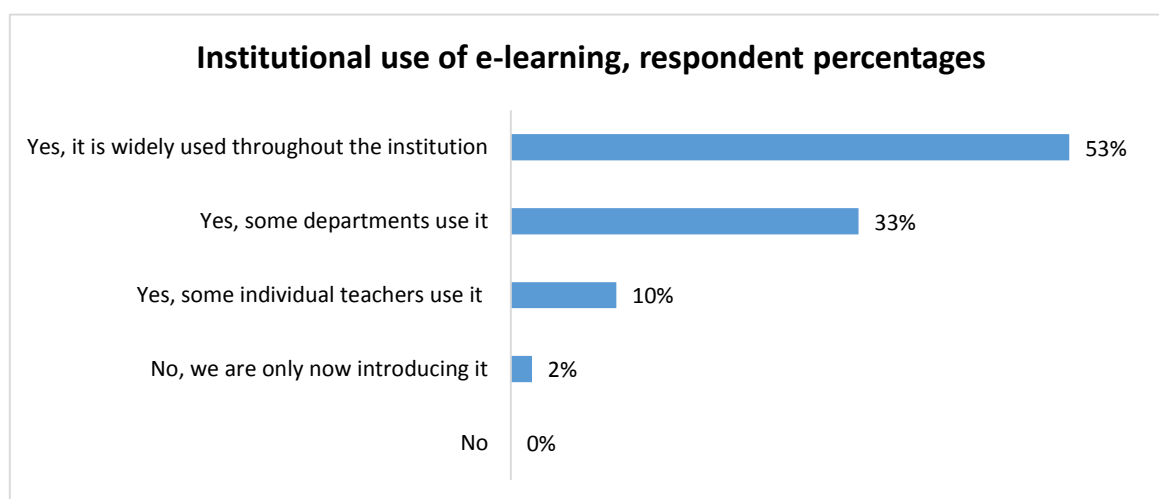
The growth of dedicated strategies for e-learning and their impact require further monitoring. At most institutions, they may have emerged fairly recently or still be undergoing development. It seems important to stimulate and support both their development and implementation, including changes in governance and management, with the establishment of e-learning centres (see p. 39) and the appointment of senior staff in charge of e-learning (p. 42). Institutions might take advantage of opportunities to share good practice and engage in benchmarking at national and European levels, in order to support these trends and pave the way for broader inter-institutional collaboration in the field.

4.2 Institution-wide use of e-learning and types of provision

No less than 96% of the institutions surveyed use e-learning, mainly in blended learning (91%), but also for online learning courses (82%). However, there is potential both for expanding its development, given that only 53% of them use it across the board, and for exploring other types of application such as inter-institutional collaboration and joint online degree programmes.

How is e-learning used within institutions? And what types of provision are most frequently adopted throughout them? Does e-learning just complement conventional classroom teaching – as might often occur in blended learning – or has it led to a redefinition of the learning and teaching process?

Figure 6 – Q5: Does your institution use e-learning?



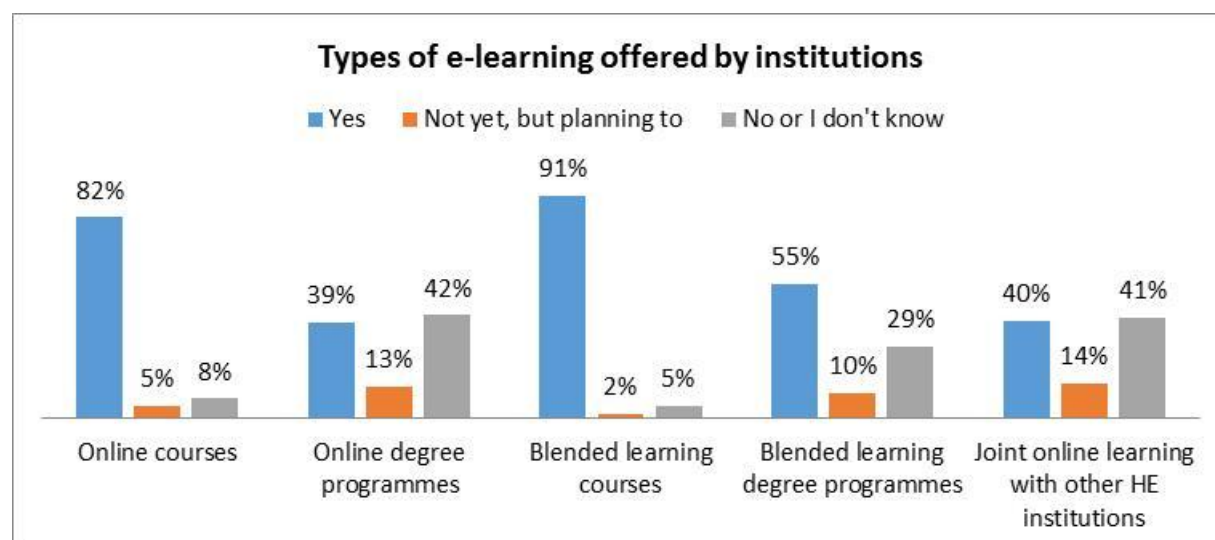
E-learning is implemented by the vast majority of respondents (96% – 238 out of 245 institutions). Just one institution stated that it does not engage in e-learning, while six others reported that they are “only now” starting to develop it (these respondents came from France, Italy, Portugal, Russia, Spain and Turkey).

However, institutions make use of e-learning to an extent that varies. Over half of them (53%) use e-learning **throughout the entire institution**, and 33% in **individual faculties and departments**. Overall, the specialised universities are those that have least adopted e-learning throughout the institution (in 40% of cases, as opposed to an average 54% for institutions as a whole). Large institutions most frequently report that they use e-learning widely throughout all faculties or departments (62% of all large institutions, compared to 44%, 52% and 53% of small, medium-sized and very large institutions, respectively).

In all, 10% of respondents report that e-learning activities are undertaken by **individual teachers** at eight comprehensive universities (8%), 13 specialised universities (21%) and five technical universities (20%), in Austria, Belgium, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Ukraine and the UK. Small institutions most often report that e-learning is only used by some individual teachers (17% compared to 10%, 8% and 11% of medium-sized, large and very large institutions).

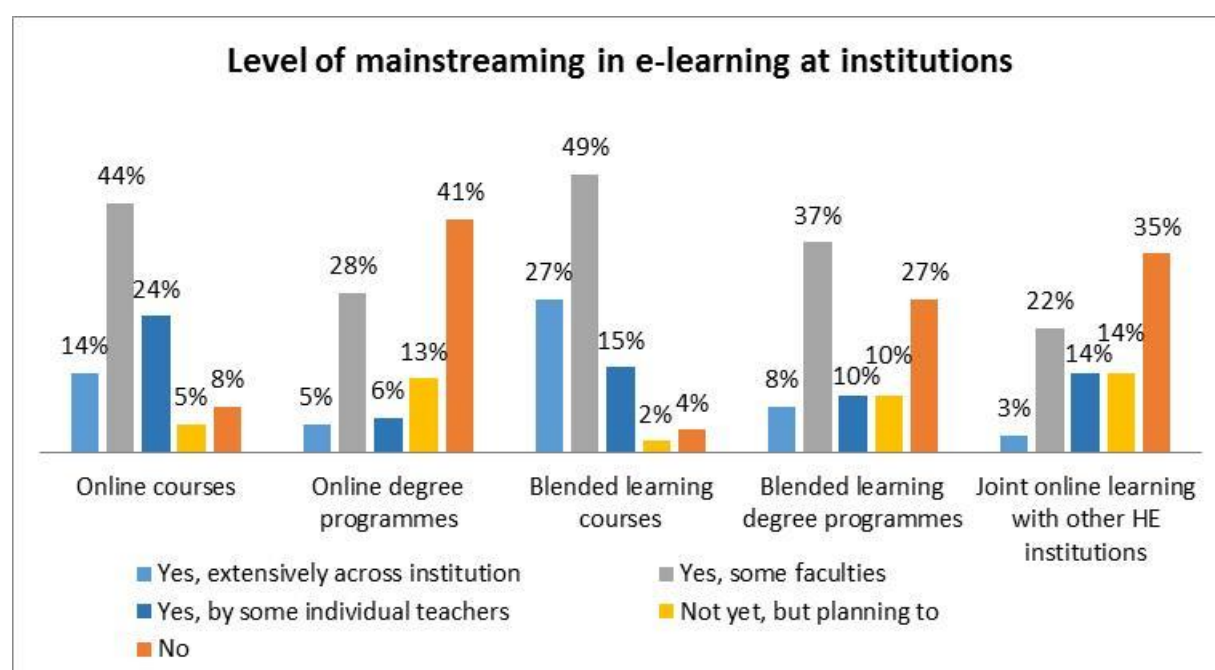
The vast majority of institutions offer blended learning and online learning courses (91% and 82% respectively). While blended learning degree programmes (55%), online degree programmes (39%) and online learning organised jointly with other institutions (40%) are still less common, 10-14% of respondents said they plan to develop them (Figure 7).

Figure 7 - Q6: Does your institution offer any of the following?



The fact that blended learning, the most widespread form of provision, occurs throughout only one in every four institutions, indicates the very modest level of mainstreaming in e-learning and its huge potential for further development (see Figure 8).

Figure 8 - Q6: Does your institution offer any of the following?



Further development potential is no doubt reflected in the fact that, in many institutions, individual faculties and teachers are already exploring the value of online degree programmes (34%) and joint online learning provision with other institutions (37%), while a significant proportion of institutions

plan to introduce them (13% and 14% respectively). Both activities are also relevant to the broader discussion in the European Higher Education Area on learning outcomes and skills, and their assessment and validation. Collaborative provision with other institutions might be strategically important for Europe in achieving better use of resources and teaching materials, improving quality and recognition, exchanging good practice in teaching and the use of technology, and developing internationalisation. Finally, institutional hands-on experience could contribute to a realistic estimate of the additional workload and resource costs that joint inter-institutional provision would probably entail.

Faculties and departments may be better placed to assess the potential of new approaches to learning by students in a particular discipline, and thus serve as the gateway to (for example) new degree programmes. Commitment and technical know-how of individual teachers are instrumental in all types of e-learning – and particularly online courses – which one quarter of respondents attributed to individual teacher initiative. Arranging a full course online instead of face-to-face could have added value for students, staff and institutions, as it would doubtless lead to better use of staff, more flexible use of time by teachers and students, and more extensive opportunities for cooperation and exchange.

Do these results point to changes in learning and teaching at European higher education institutions? For example, blended learning is arguably compatible with the provision of conventional classroom lectures. Yet given that only a quarter of respondents have mainstreamed it – while an even lower proportion have mainstreamed other forms of delivery – it is perhaps debatable whether e-learning has substantially changed the provision of learning in general. But one might also argue that because it is quite easy to embed blended learning programmes in a conventional classroom environment, this might be the best way of developing institutional capacity for e-learning, without impoverishing the study experience or drastically changing institutional structures. That said, strong involvement in blended learning and the fairly widespread use of other types of provision (as yet not mainstreamed) may imply that a transformation process is under way.

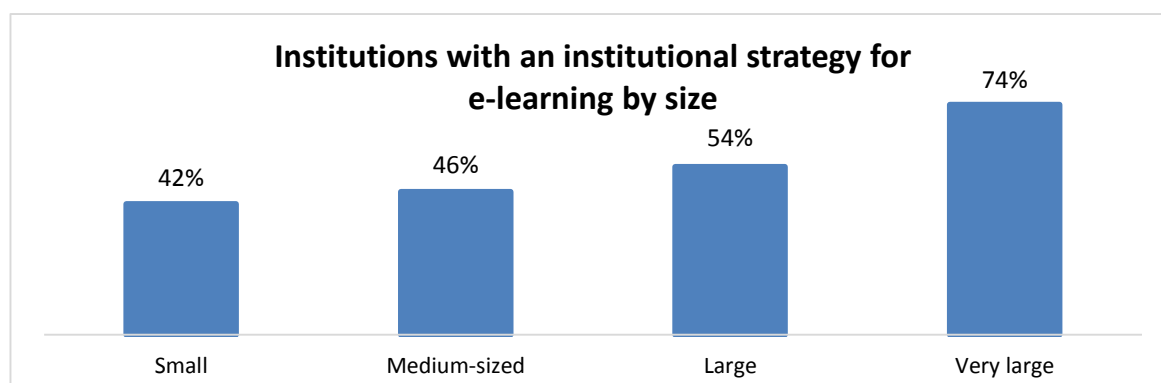
4.3 Flexibility of online learning

Besides the pedagogical, organisational and economic motives underlying a move towards online learning provision at conventional higher education institutions, the trend seems to correspond to a growing need among on-campus students for more flexible use of time and place, so that they can combine study, work and social obligations better. In addition, institutions are exploring online delivery in response to the needs of professional and other lifelong learners.

Probably the most surprising revelation from the above statements is that online learning, which was formerly the preserve of specialised distance learning institutions, has clearly entered the physical premises of conventional higher education institutions, with some indication that it will expand further.

The future scale of this trend will depend at least in part on student demand for online learning. In this context, one key question is whether the online provision of institutions **targets particular groups of learners**.

Figure 9 - Q21: Is there any group that your institution targets specifically through an [online offer](#)?



While half of the respondent institutions said that they **do not target any particular group through their online offer**, almost one third of them (31%) identified the following target groups:

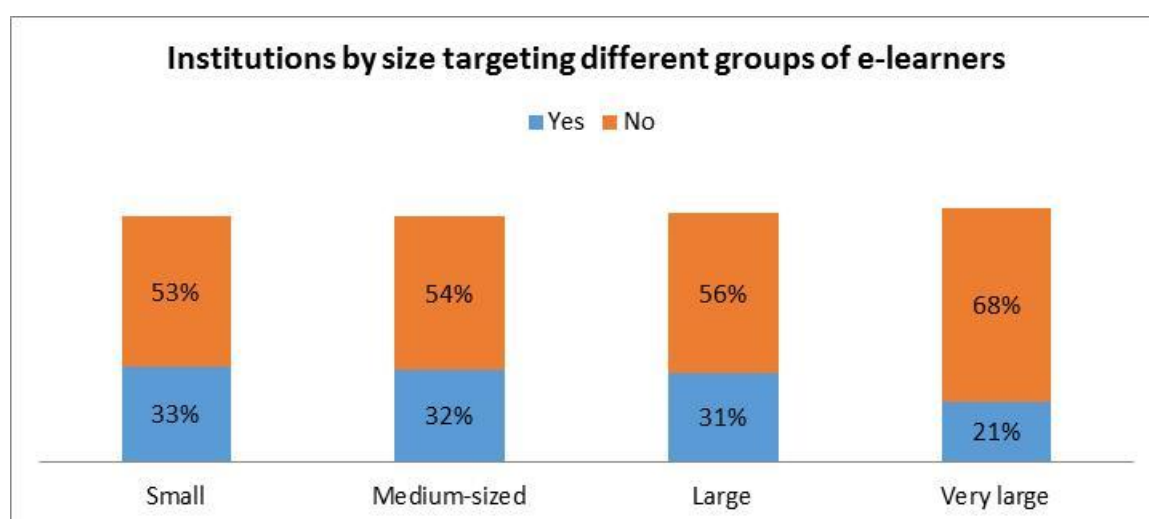
- **on-campus students or students from other parts of the university**, including those temporarily unable to engage in on-campus study (because of training placements or for health reasons);
- **postgraduate students, including international students** from other countries or regions;
- **international students**, by offering them an alternative to on-campus study;
- **full- or part-time employed students**;
- learners intending to pursue training for **continuous professional development (CPD)**, and **unemployed people wishing to reskill**;
- other **lifelong and adult learners**, including those taking courses as a leisure activity.

The most frequently cited disciplinary areas or professional sectors are **health professions** (“students in health sciences”, “nursing students”, “CPD for nurses”, “CPD in the biomedical sector”) and **teacher training** (“Master’s degree for secondary teachers”, “pre-service teachers, educators, in-service teachers”, “teaching English to speakers of other languages”, “young academic teachers” and “national training for future teachers and headmasters”). Teacher education is also one of the areas in which e-learning is especially prominent (see section 4.5, p. 33).

Many other specific groups and purposes are referred to, including accountancy for real estate managers, in-service social workers, special offers for entrepreneurs, courses for elite sports people, CPD in software use and Irish studies for US students.

No particular link was found between types of institutions and a focus on special learning groups. However, the results suggest that smaller institutions seem more likely to target specific student groups, while larger institutions do so less (Figure 10).

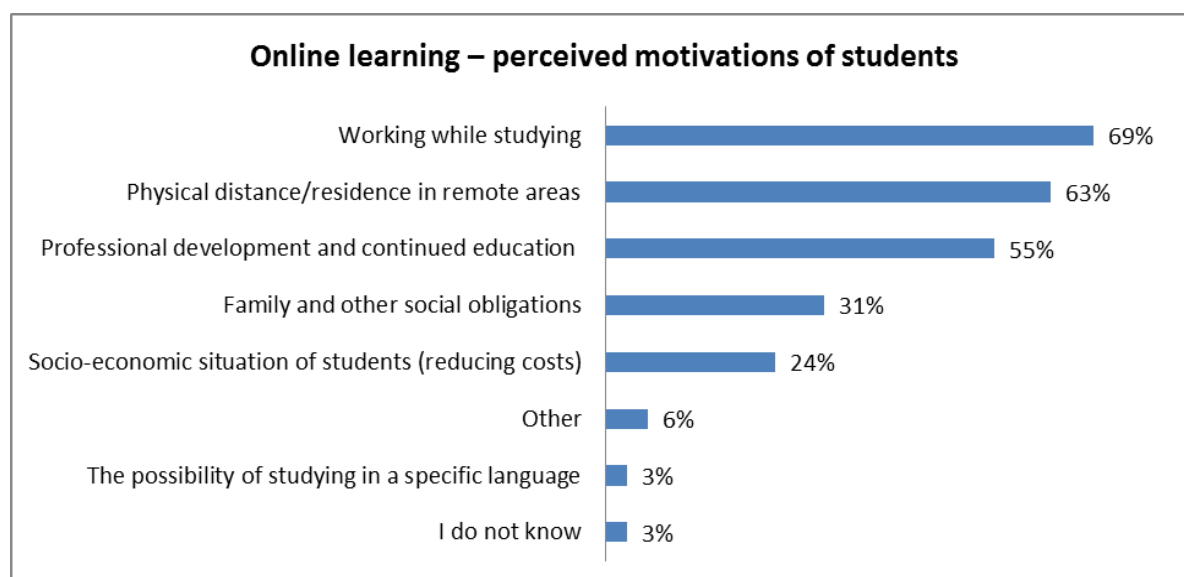
Figure 10 - Q21: Is there any group that your institution targets specifically through an [online offer](#)?



However, this finding has to be interpreted with care. If a larger institution says that it targets no particular learner group, this may imply that it runs many different specifically targeted e-learning initiatives.

The survey also explored how institutions perceive the **motivations of their students for participation in online learning** (Figure 11):

Figure 11 - Q20: What do you think are the main motivations for your students to sign up for online learning (learning processes that take place via the Internet)?



Overall, 70% of respondents believe **combining work and study** is an important motivation. In addition, 63% and 55% highlight **residence in remote areas** and **continued education**. **Family and socio-economic situation** are cited by almost a third and a quarter of respondents, respectively.

While these results are very much in line with the customary profiles of distance learning students, responses in the “other” category cite what could plausibly be the institution’s own **pedagogical**

goals, including enhanced learner autonomy and self-directed learning, faster access to better quality learning materials, and the desire of students to use ICT and their ability to do so.

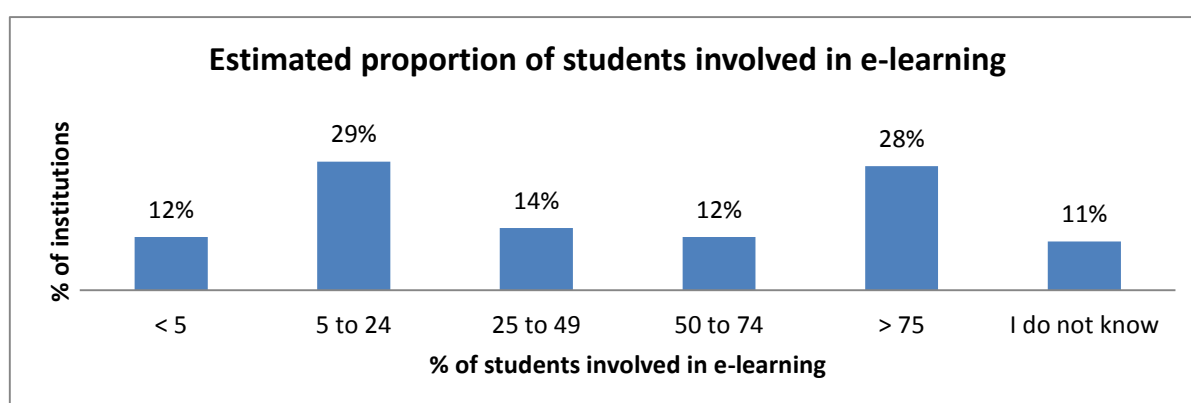
It may be concluded that online course and programme provision at most institutions is a response to general pressure for more flexible provision, as it often targets several very specific groups in various disciplinary areas and professional sectors. However, flexible provision for employed students and professional learners is clearly a high priority. While at some institutions international students/learners are a target group, internationalisation is not generally very pronounced in e-learning, whereas it seems to be one of the main motives for the development of MOOCs.¹³ Further research should assess what these developments mean for institutions, in terms of the organisation of study programmes, teaching and recognition.

4.4 Number of students engaged in e-learning

Just over a quarter of institutions (28%) report that more than 75% of their students are involved in e-learning.

The numbers of students involved in e-learning are another indicator of how far it is mainstreamed.

Figure 12 - Q10: What is the estimated percentage of students at your institution involved in e-learning?



Over 40% of institutions involve less than a quarter of their students in e-learning, which is not too surprising since many institutions indicate that their e-learning activities are developed at faculty level and by individual teachers. In around another 40%, at least half of the students are engaged in e-learning.

As shown in Figure 13, 45% of institutions with an overall strategy claim to involve more than half their students in e-learning, whereas a similar claim is made by just 32% of those with no strategy or only faculty-level strategies.

¹³ See section 5.1.2, p. 45.

Figure 13 - Impact of institutional strategies on student involvement in e-learning (Q10 x Q5)

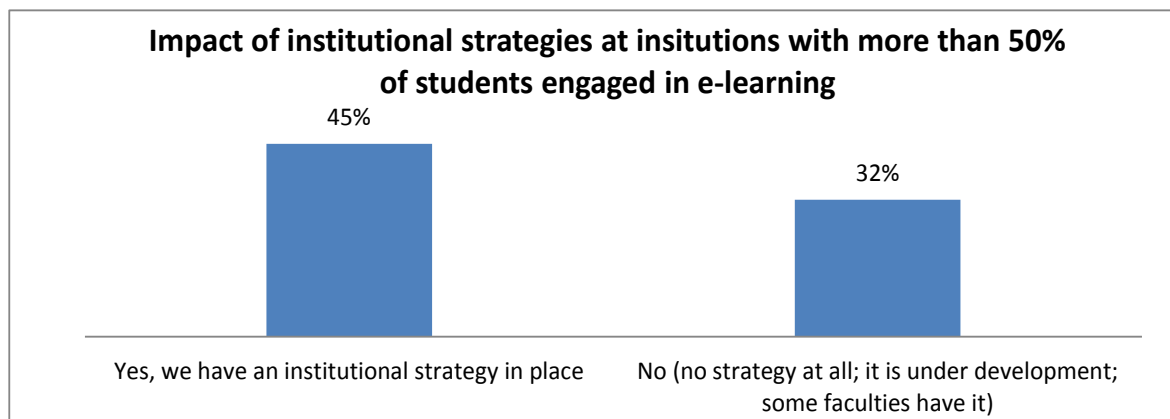
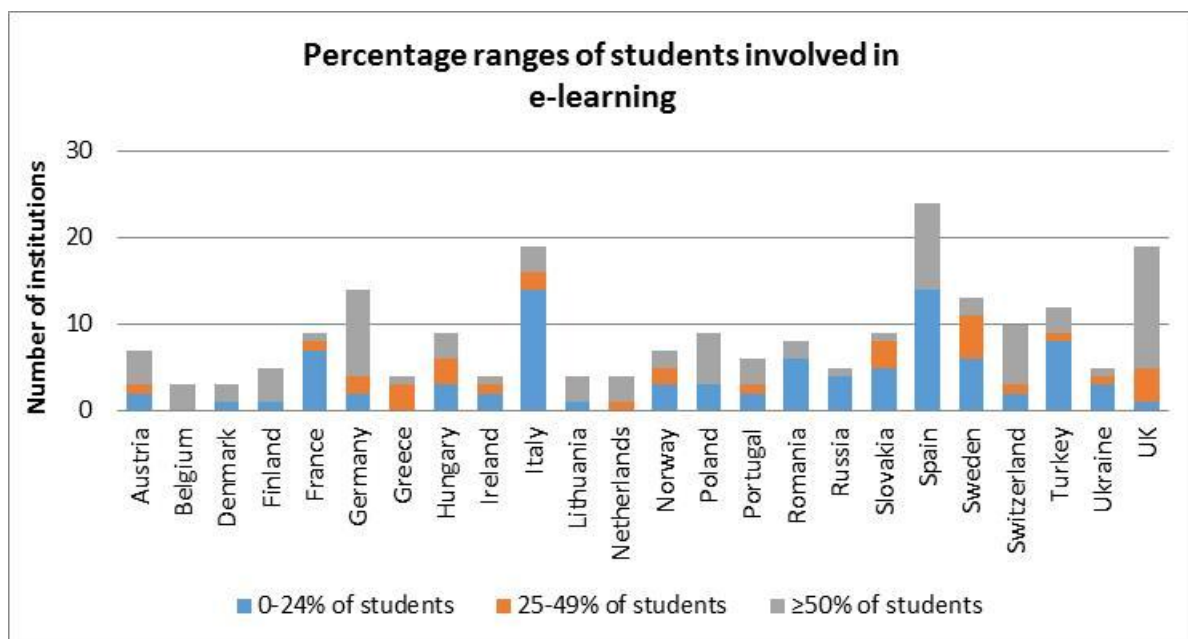


Figure 14 shows that institutions in Germany, Spain, Switzerland and the UK are those that most frequently claim to involve over half of their students in e-learning. Conversely, the respondents from Italy, France and Turkey most frequently report the lowest student proportions in this respect (under 24%).

Figure 14 - Q10: What is the estimated percentage of students at your institution involved in e-learning (institutions per country)?



*excluding countries with less than four responses

Figure 15 - Q10: What is the estimated percentage of students at your institution involved in e-learning (per type of institution)?

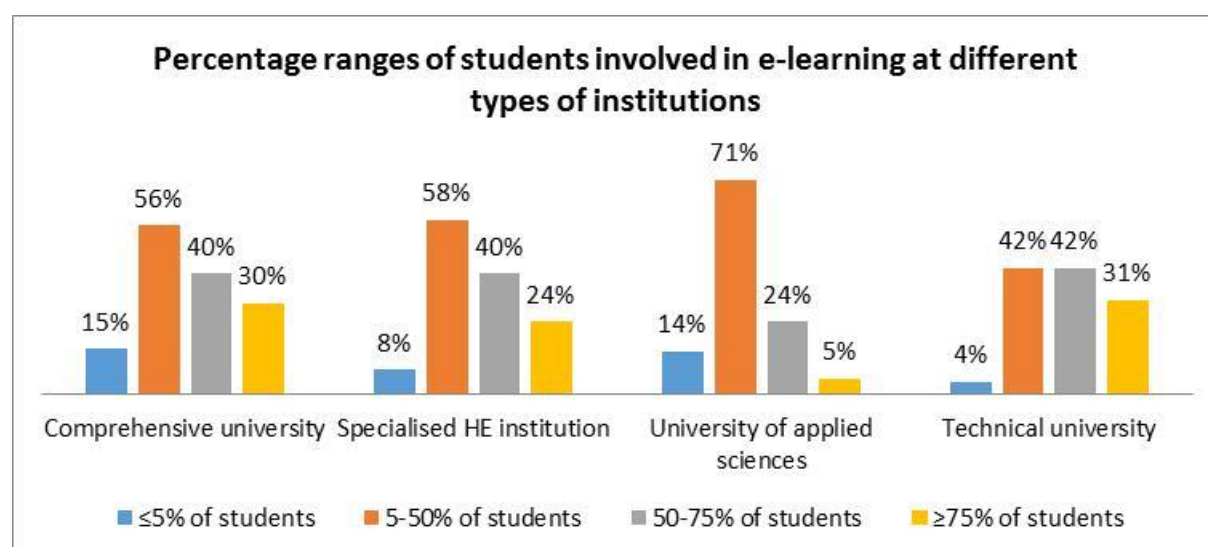


Figure 15 shows that while around one third of the comprehensive universities and technical universities said that over 75% of their students take part in e-learning, this was the case at only 5% of universities of applied sciences. These proportions illustrate how disparate the institutional take-up of e-learning can be. Universities of applied sciences apparently score high when they establish institution-wide e-learning strategies and activities.¹⁴ This result thus seems to run counter to the above finding that institutions with strategies are likely to expose more students to e-learning (Figure 13).

It is hard from the survey results to identify clearly what impedes the mainstreaming of e-learning and student access to it within institutions. While logistic factors might be relevant if the technical infrastructure required is not available everywhere within the institution, the answer might also partly depend on whether or not course provision in all disciplines has embraced e-learning. Even if an institution states that it uses e-learning across the board, the exclusion of just one or two popular subject areas, might result in statistically low student participation overall.

¹⁴ Overall, 55% of universities of applied sciences say they have adopted an institutional e-learning strategy, while 62% report that they use e-learning widely throughout their institution.

4.5 Use of e-learning in disciplinary and generic skills teaching

The question that now arises is whether there are certain fields of study or disciplines in which the use of e-learning is particularly strong.

4.5.1 Preferred disciplines for e-learning

One in five institutions applies e-learning in all disciplines. Institutions report frequent use of e-learning in business and management, education and teacher training, and in branches of engineering and technology.

Table 4 - Q7: Are there specific disciplines where the use of e-learning is particularly prominent?

All disciplines	22%
Business and management	37%
Education, teacher training	34%
Mathematics, informatics	33%
Engineering, technology	33%
Social sciences	27%
Humanities	21%
Medical sciences	19%
Natural sciences	18%
Law	14%
Architecture	4%
Arts and design	4%
Other	14%

Over one fifth of the institutions (22%) stated that e-learning is used in all disciplines, which is fairly consistent with the 27% of respondents who said that their universities apply e-learning throughout the institution.

All other institutions stated that they would use e-learning in certain disciplines: in business and management (37%), followed by education and teacher training (34%), mathematics and informatics (33%) and engineering and technology (also 33%). Social sciences, humanities, medical and natural sciences are fairly close to the average ranking for all disciplines of 22%. Responses in the “others” category relate mainly to language courses and linguistics, agriculture, food sciences, librarianship and information sciences, nursing, security services, sport and theology.

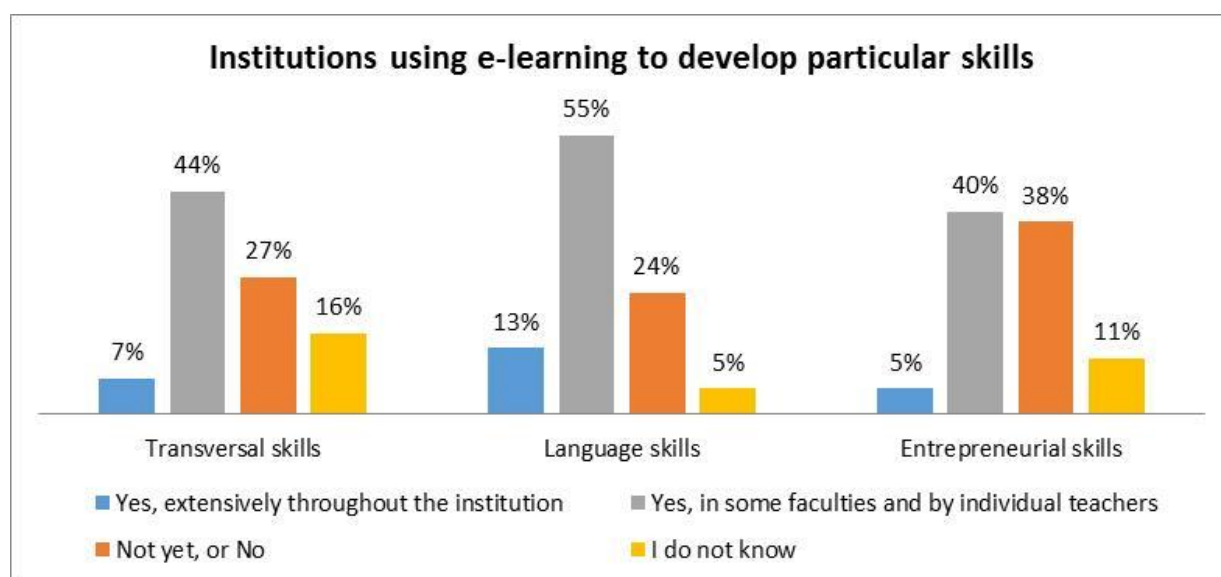
E-learning appears to be relatively uncommon in law (14%) and very uncommon in architecture, arts and design (4%). One might surmise that this is because of the distinctive learning approaches characteristic of these disciplines.

4.5.2 Transversal and cross-functional provision

In half of the institutions e-learning is used for transversal and entrepreneurial skills training. In two thirds of institutions it is also used for training in languages. However, e-learning is not commonly used for these purposes across the entire institution.

Over and above its provision in specific fields of study, e-learning is assumed to create opportunities for training in transversal and language skills. It is also associated with training specifically for entrepreneurial skills, which is being paid growing attention in higher education.

Figure 16 - Q8: Is e-learning used also to provide courses in the following areas?



Use of e-learning is commonest in language training (68% of respondents), while around half the institutions use it for training in transversal or entrepreneurial skills (51% and 45% respectively). But as in previous findings, it is not often used across entire institutions.

The strong take-up at individual faculties may indicate that these forms of training are more relevant to some fields than others. For example, the data suggests that business and engineering faculties in particular are using e-learning very intensively for entrepreneurial skills training.

But the same results might also reflect – somewhat contradictorily – an ongoing process of mainstreaming and institution-wide development. This assumption would be consistent with both the decisive contribution made by individual teachers and also with the proportion of institutions planning to develop e-learning for these three sets of skills. At 14%, this proportion is highest in the case of entrepreneurial skills which constitute a relatively new focus of training at most higher education institutions. Indeed, almost 70% of them are considering the inclusion of entrepreneurial skills training in their e-learning provision.¹⁵

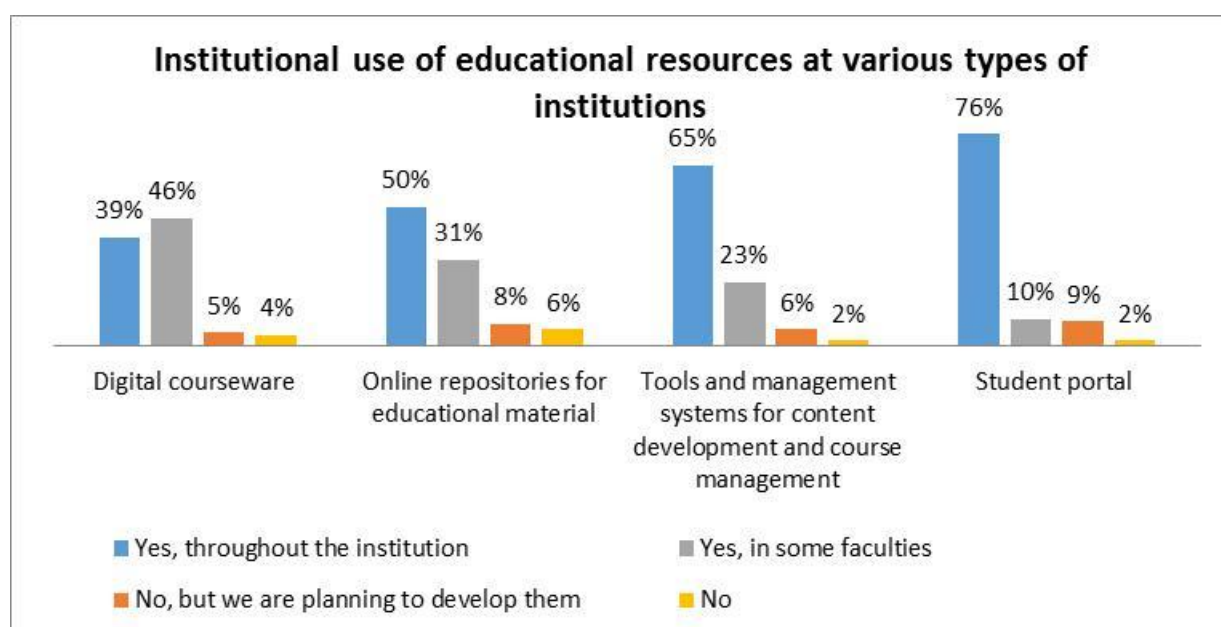
¹⁵ Entrepreneurial skills training had not been tracked by other surveys and it is a surprise to find such a significant number of institutions providing it or planning to do so. Given that the purpose of this question was

4.6 Infrastructure and support

Provision of email accounts and licensed software for students, access to Wi-Fi and computer rooms, online course catalogues and online libraries have become the norm at higher education institutions, and social media are widely used to communicate with students and alumni. The next wave of technological adaptation with electronic student portfolios and personalised study portals is already under way.

In order to ensure successful learning and teaching, institutions would have to provide solid infrastructure and also support to students and staff. The survey thus examined the kind of ICT infrastructure already in existence and its accompanying support measures.

Figure 17- Q15: Does your institution use any of the following types of educational resources?



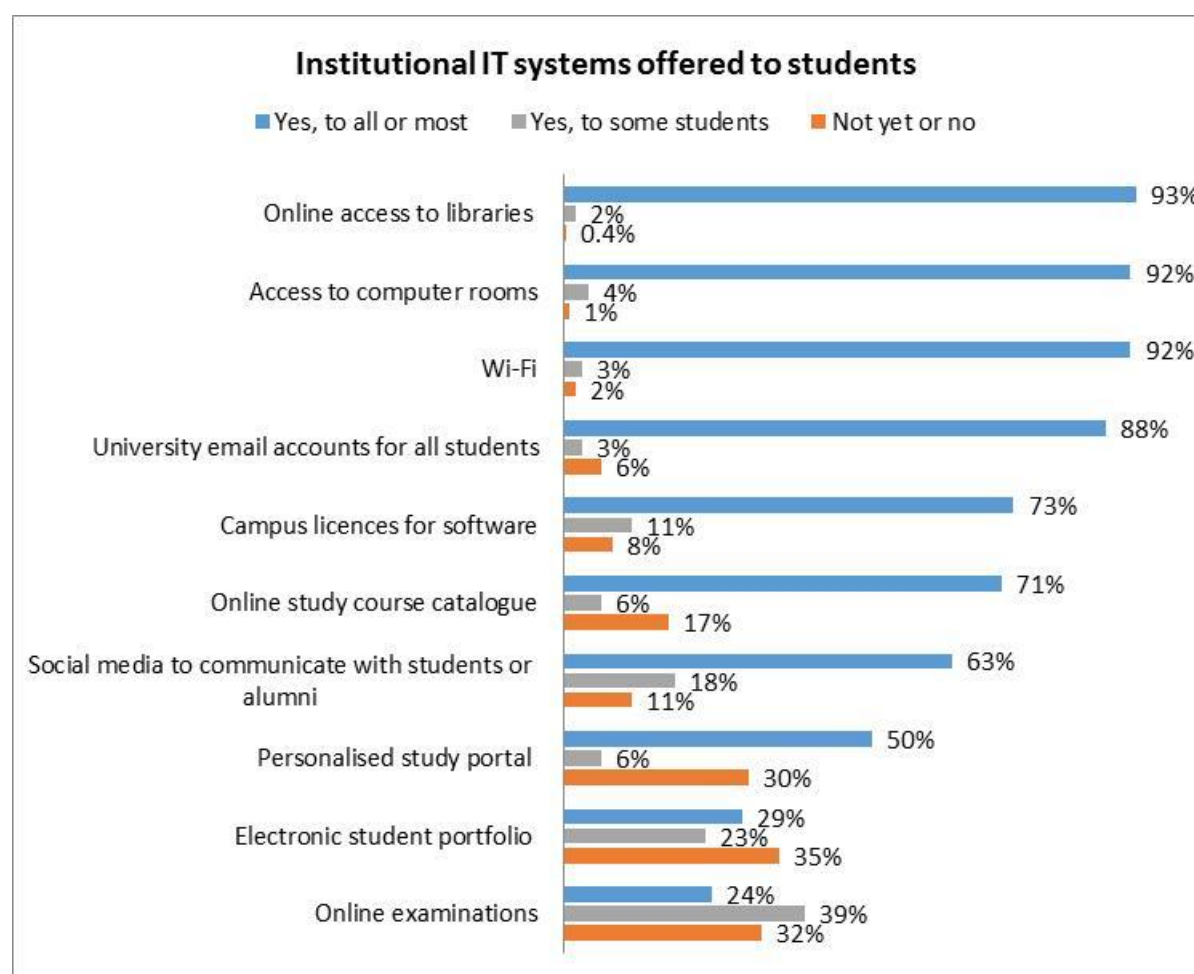
Over 80% of the respondent institutions indicated that they use **digital courseware** such as digital textbooks, curricula and reference materials, **online repositories for educational material**, **tools and management systems** for content development and course management,¹⁶ and **student portals**, either throughout the entire institution or at some faculties.

But how far have institutions digitalised their service provision to students and given them the instruments needed to navigate the digital environment?

to capture whether this is done via e-learning, the responses indicate that this type of training (via e-learning or face-to-face) is on an upward curve.

¹⁶ For example, Moodle (Modular Object-Oriented Dynamic Learning Environment) and Blackboard®.

Figure 18- Q17: Which of the following information technology (IT)-related systems does your institution use or provide for students?



Nearly all institutions provide students with **email accounts**, **access to Wi-Fi**, **computer rooms** and **online libraries**. Over 80% of the surveyed institutions provide **campus licenses for software**, **repositories for course and study materials** and **online course catalogues**, and rely on **social media** to communicate. Most of them do this for all or most students.

Other resources and schemes used by respondent institutions include lecture recordings, multimedia content repositories and image archives, as well as the provision of tablets and applications for mobile devices, and iPad loans for students.

However fewer respondents report the use of educational resources such as **electronic student portfolios**, **personalised study portals** and **online examinations**. The fact that the last two resources are frequently used in the case of some students suggests that – if successful – they may soon become universally available.

The question of **online examinations** deserves particular attention. While not a requirement for e-learning or even online learning, their feasibility and trustworthiness are important factors in the flexibility and global outreach of learning provision. Their more effective and efficient assessment

methods are also of possible relevance to classroom learning.¹⁷ In the context of MOOCs, this has generated debate on the reliability of identity verification and fraud prevention. However, there is concern among supporters of e-examinations that they should not be reduced to just multiple choice tests.

Almost 40% of institutions report the use of online examinations for some students. The fact that 25% already use them for all or most students suggests that their technical limitations can be overcome, and that they are adaptable to all or most disciplines, as well as to certain groups of students who may require them in remote locations or to enhance study flexibility (as in the case of adult learners in distance learning programmes). Online examinations seem set to become more widespread, with a further 9% of institutions planning to introduce them.

Contrary to the widespread expectation that all students at open universities would take online examinations, the practice at these institutions differs little from that of traditional ones: two of them set online examinations for all students and one for some of them, while two do not provide any such examinations although one is planning to.

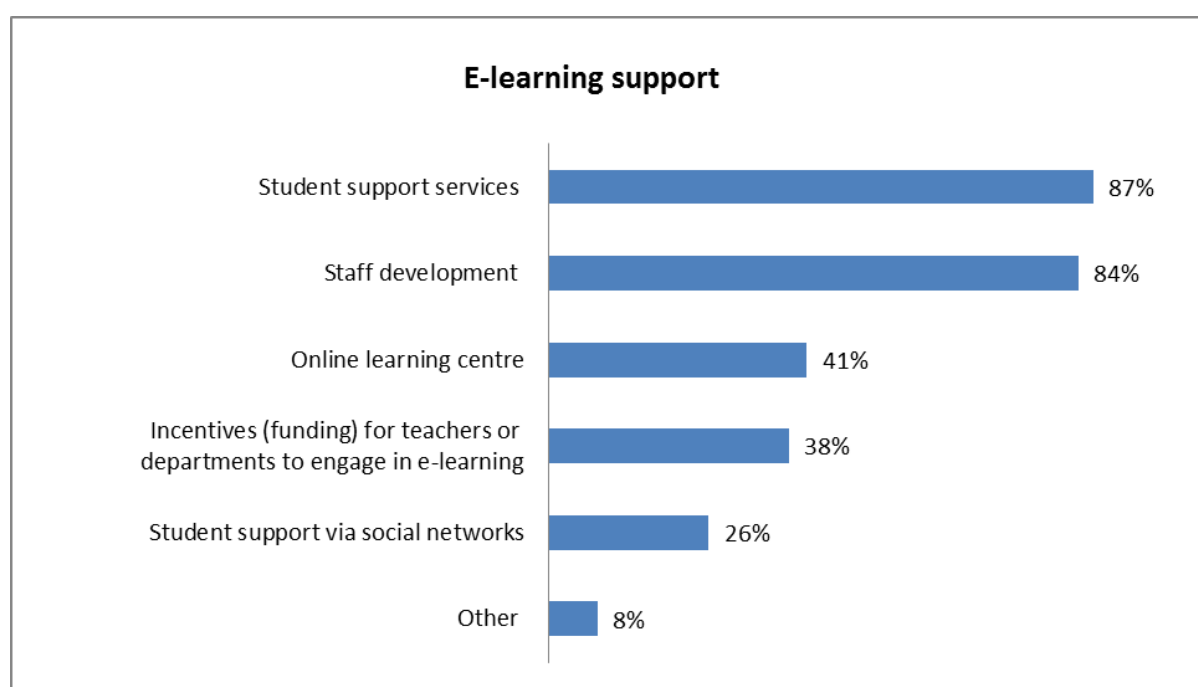
4.7 Support and incentives for students and staff

The vast majority of institutions provide specific student support for e-learning and staff training. One third of them offer incentives to staff and 40% have a dedicated e-learning centre.

The survey also considered the readiness of institutions to support the use of e-learning by students and staff, in order to ensure its enhancement and success.

¹⁷ Online learning courses often still require students to be physically present at examinations, while online examinations can also be used to assess the results of face-to-face learning.

Figure 19 - Q16: Which of the following does your institution provide to support e-learning?(Multiple response)



Over 80% of institutions said that they have **staff development and support measures** and **student support services for e-learning**, with 25% of them also using **social media networks** for student support. Just over 40% of respondents claim to have established an **online learning centre**, while others refer to special **technical units to support e-learning and educational innovation**. Overall, 37% of institutions provide **incentives for teachers and departments**, either through dedicated funds or as part of general funding for teaching innovation.

Naturally, most of these features are more strongly developed at open universities (with the exception of teacher incentives which are reported by just one of them). Otherwise there is no significant difference between the various types of institution.

“Other” responses refer to events at the institution, web-based resources to promote e-learning and disseminate good practice, and projects for the development and enhancement of research on e-learning. Several respondents also emphasised the importance of working closely with students and student unions, as “change agents”.

All this seems to indicate a continuous process of digitalisation of infrastructure, communications and services. Some of its elements are clearly the result of ongoing digitalisation and rationalisation in society at large (including higher education institutions), which are not driven solely by e-learning but affect institutional administration and management. This is why for example study portals, online course catalogues, instruments for course management and digital library access are used throughout institutions, whereas e-learning is not. But e-infrastructure may constitute an important condition for e-learning. With the extensive coverage and sophistication of e-structures and e-instruments, their compatibility and connectivity both for teaching and learning and for management and administration are vital to the sound functioning of institutions. At an early stage, a holistic and strategic approach to e-learning should become part of the institutional agenda.

Meanwhile it makes sense for conventional higher education institutions not planning to become solely online establishments to consider how “e-savvy” they want to be and in which areas of learning and administration they want to digitalise. The exchange of best practice between them, along with consideration of the experience accumulated by open universities, could help to inform them in this respect.

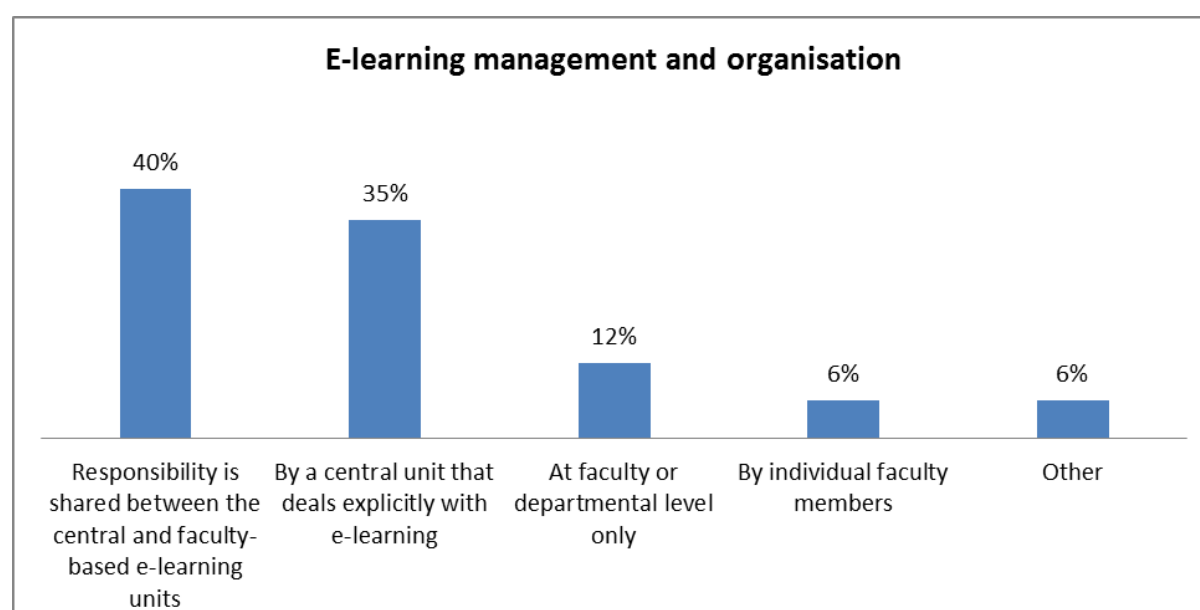
4.8 Institutional management and coordination

4.8.1 E-learning units

Three-quarters of respondent institutions rely on institution-wide coordination for the management of e-learning.

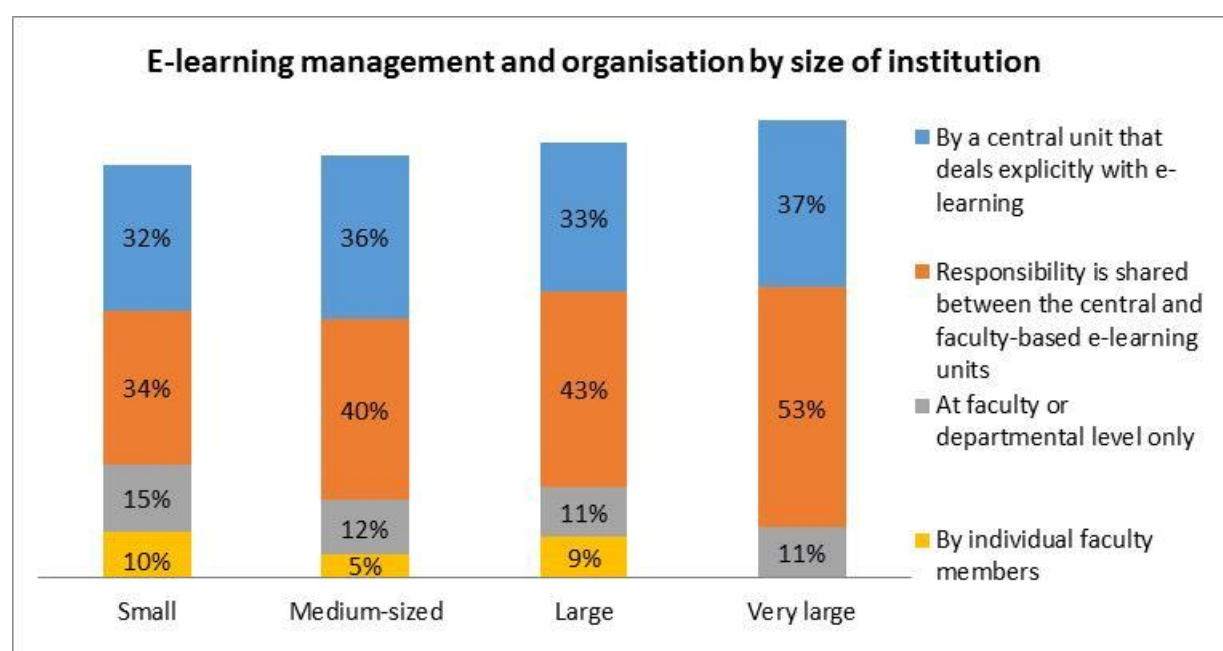
Given the complexity of e-learning and e-infrastructure, with their technical, pedagogical, cultural, legal and resource implications, not to mention the need to ensure a common institutional framework, the survey further examined whether and how institutions have organised the administration and coordination of these matters.

Figure 20 - Q9: How is e-learning managed and organised at your institution?



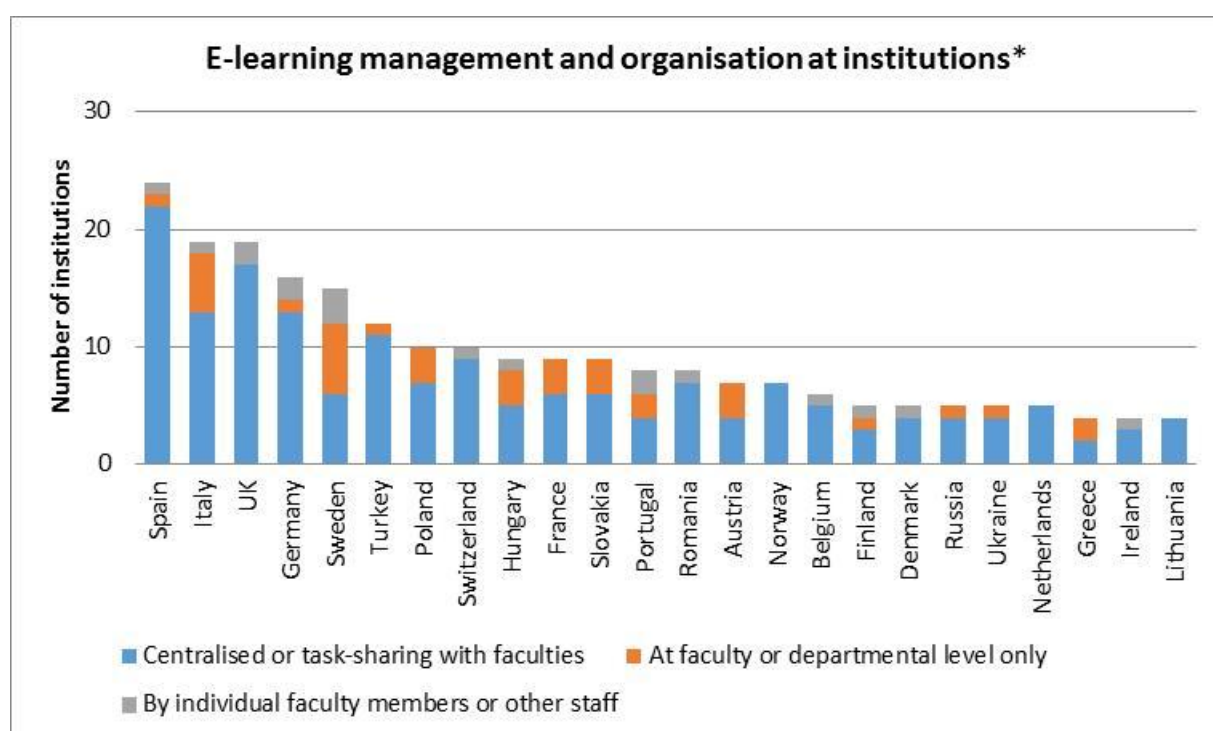
Overall, 75% of survey respondents reported that e-learning is either managed by a central unit (35%), or as part of task-sharing with faculty-based units (40%). The preference for this approach seems dependent on the individual institution with no visible country trends, although it is slightly less common at specialised universities. Interestingly, the larger the institution, the stronger seems to be the trend towards responsibility for e-learning management and organisation being shared between a central unit and faculty-based e-learning units. Smaller institutions seem to be more likely to manage e-learning at the level of faculties or departments.

Figure 21- Q9: How is e-learning managed and organised at your institution?



The clear trend towards centralised or shared-responsibility institutional approaches is remarkable, given that faculties or individual teachers often drive e-learning activities. It may be attributable to many of the concerns linked to e-learning. For example, investment in costly technology, legal aspects (e.g. licensing and intellectual property rights) and the validation of learning (in the award of credits and degrees) require coordination by institutions and decisions taken by their leaders. The trend is consistent with the general one towards more central guidance and oversight in institutions and the shift from faculty- and teacher-driven activities to institutional strategies initiated by their leaders. This has been especially apparent over the past decade in the internationalisation of institutions.

Figure 22 - Q9: How is e-learning managed and organised at your institution?



*countries that submitted at least three responses

For the majority of respondents from Belgium, Denmark, Italy, Spain, and Turkey, the centralised pattern of e-learning governance seems to be particularly pronounced. An approach in which central and faculty-based e-learning units share responsibility for e-learning has been reported by over half the respondents from Germany, as well as the majority in Norway and the UK.

At the other end of the spectrum is Sweden, in which over half of respondents reported that responsibility for e-learning is either at faculty or departmental level (40%), or lies with individual faculty members (13%). In this context, it should be recalled that only 7% of the Swedish respondents (1 out of 15) said they have an institutional strategy for e-learning, compared to the average of 49%.

4.8.2 Role of senior leadership

At 84% of institutions, survey responses were submitted by senior staff in charge of e-learning (heads of e-learning centres, vice-rectors, etc.), or by special advisers to the heads of institutions.

The questionnaire was sent to institutional leaders who were invited to forward it to their colleague(s) with strategic responsibility for e-learning at the institution. They were asked to consider the position of e-learning from the perspective of the institution as a whole.

The status of respondents within their institutions indicates the level of institutional attention paid to e-learning and the way in which it is organised:

- In all, 170 respondents hold senior positions either at central institutional level (e.g. vice-rector, pro-rector, or registrar for academic or international affairs), or run a central structure

dealing with the issues concerned (directors of e-learning or distance learning centres, or innovation or international offices or centres).

- Around 40 respondents occupy a coordinating or managerial role, while a further 30 hold advisory posts in support of institutional leaders, acting for example as special advisers to the rector on e-learning issues.
- The remaining 39 respondents are professors, including those in subjects relevant to e-learning (e.g. education and informatics), and a few researchers.

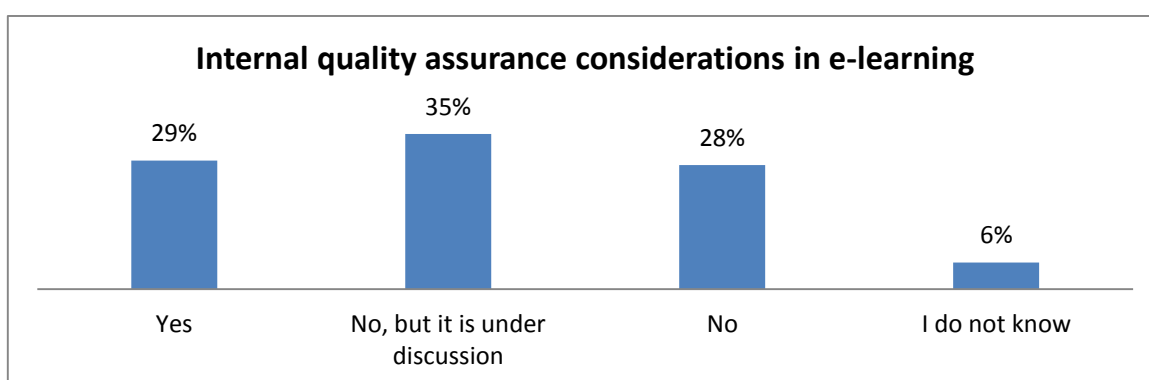
The senior leadership status of most respondents reflects increasing institutional interest in e-learning. It also indicates changes in governance and management structure. Positions such as “vice-rector for information management and technology” or “adviser to the President for ICT-based learning” are very recent creations. Furthermore, the titles and status of respondents suggest that e-learning at many institutions is supported through centralised institutional structures and special projects and initiatives.

4.9 Quality assurance

E-learning is already considered in approaches to quality assurance at a third of respondent institutions. Nearly a quarter of them (23%) said that their QA agencies give special consideration to e-learning. In addition, around one third of respondents reported that QA in e-learning is currently under discussion in their institutions and QA agencies alike.

E-learning programmes and initiatives have to undergo quality assurance, and there is ongoing debate on whether it is appropriately considered by existing internal and external QA frameworks.

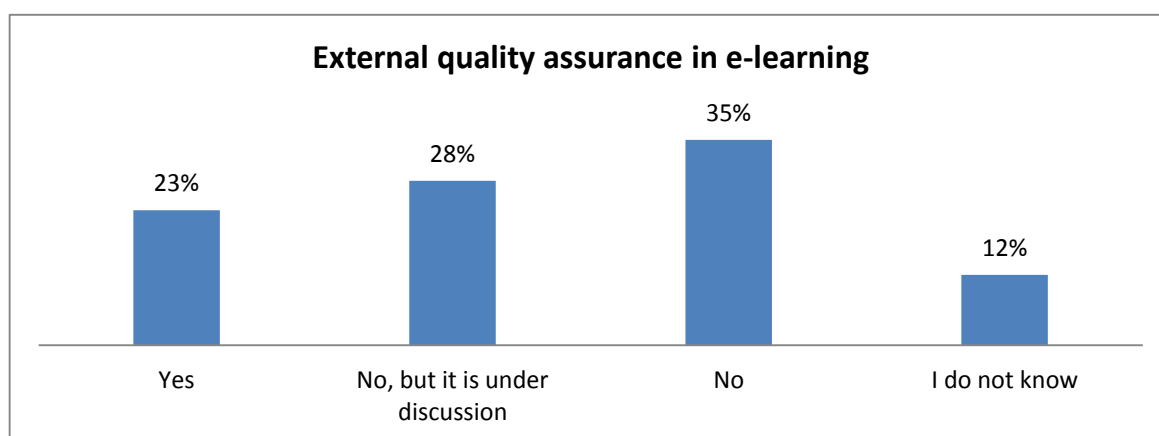
Figure 23 - Q13: Has there been any special consideration of e-learning for internal quality assurance procedures at your institution?



As shown in Figure 23, only 29% of respondent institutions have internal quality assurance procedures that pay special attention to e-learning, although 35% are considering them.

Similarly, while only 23% of respondents state that their external QA agencies have established special requirements for e-learning, another 28% say that this issue is under discussion (see Figure 24).

Figure 24 - Q14: Does your quality assurance (QA) agency have any specific QA requirements for e-learning?



Until recently, e-learning has apparently not been regarded as an issue of sufficient importance for QA. In addition, the e-learning community has developed its own bodies and guidelines for e- and online learning, such as the EADTU (the European Association of Distance Teaching Universities)¹⁸ and EFQUEL (the European Foundation for Quality in E-Learning).¹⁹

The results suggest that the importance of QA for e-learning will grow. However, precisely what this means requires further analysis. Past experience suggests that QA helpfully draws attention to the specifics of new tasks facing higher education, such as lifelong learning activities and internationalisation, and encourages both internal and external QA mechanisms to consider them further. The distinction between e-learning and conventional learning is becoming increasingly blurred as the use of technology spreads throughout institutions, and the articulation between face-to-face and virtual learning environments in blended learning becomes ever more complex. Institutions and agencies should thus reflect on how existing QA principles and processes might relate to changes in learning provision.

4.10 Real and intended benefits of e-learning

In view of the discussions surrounding MOOCs on learning innovation and radically transforming provision in higher education, a key aspect of the survey has been its focus on the real impact of e-learning at institutions. Especially interesting are the experience gained from e-learning and its perceived benefits in both teaching and learning.

4.10.1 General experience with e-learning

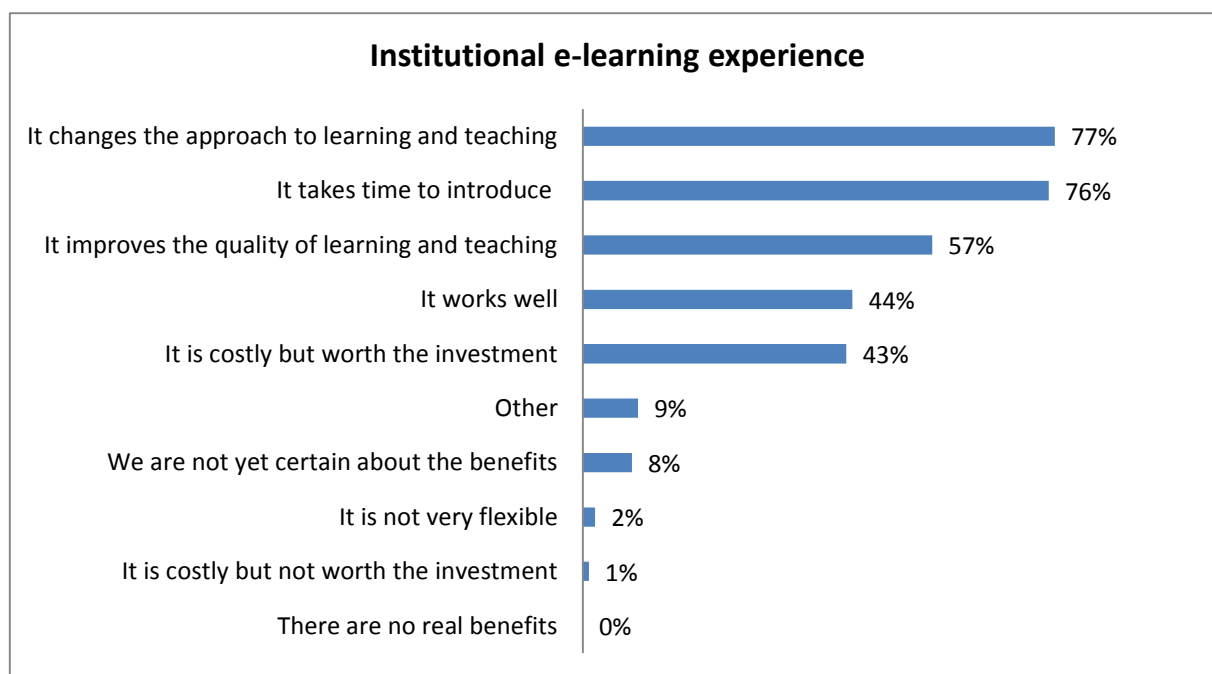
Three quarters of the institutions surveyed acknowledge that e-learning can change the approach to learning and teaching, and 87% view it as a catalyst for changes in teaching methods and endorse its potential for enhancing learning in mass education settings. However, while the benefits of e-learning were not seriously disputed, only half the respondents thought that it improves the quality of learning and teaching.

¹⁸ www.eadtu.nl

¹⁹ www.efquel.org

They also specified conditions for its success, and above all the need for sufficient time to introduce and develop e-learning initiatives.

Figure 25 - Q11: So far, what has been your institution's experience regarding e-learning? (Multiple response)



There is substantial agreement among respondents that e-learning **changes the approach to learning and teaching** (77%), but also that **it takes time to introduce** (76%). Several responses in the “other” category demonstrate a positive attitude towards e-learning:

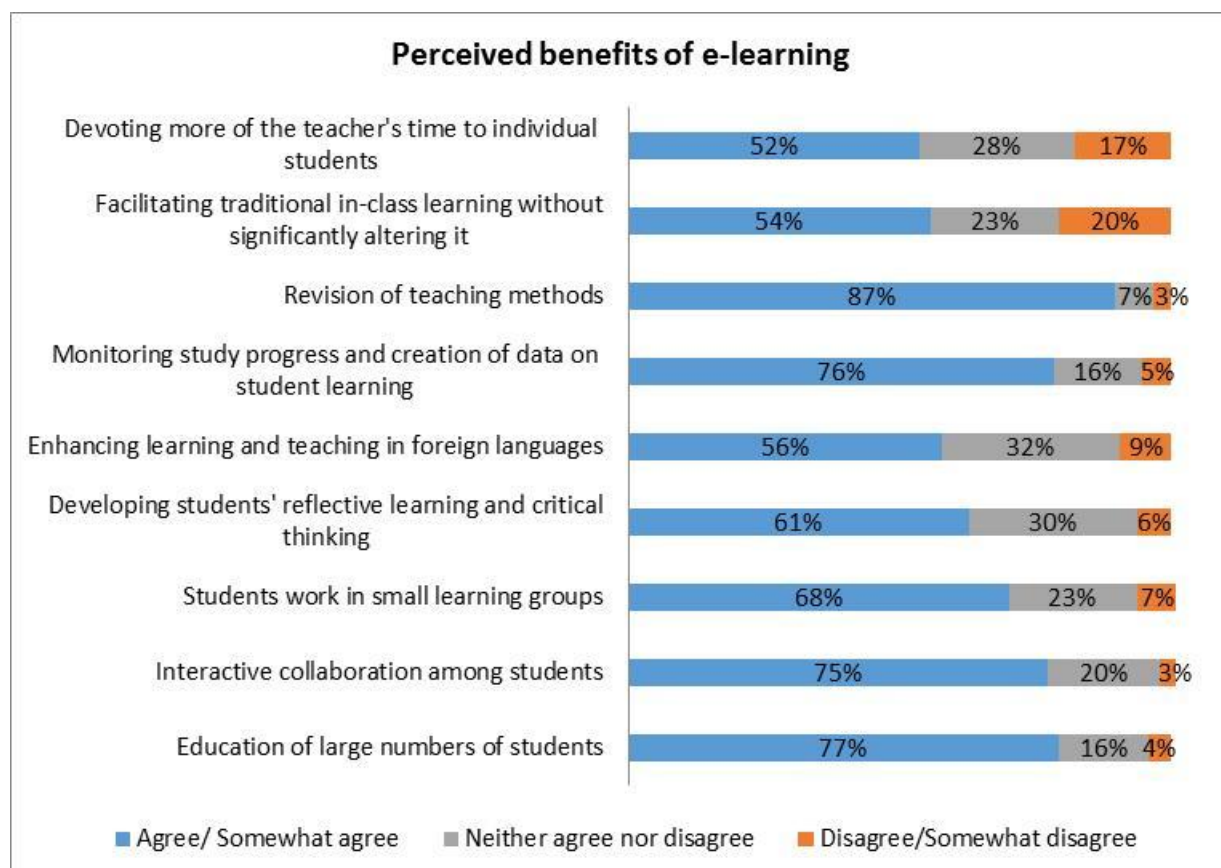
- It can improve student learning (as in the case of simulations in virtual environments, and virtual patients), and ensure better student services and responsiveness to a varied student body.
- It can promote professionalisation of academic staff and support staff training.

Very few respondents submitted clearly negative statements: Only one respondent out of 249 stated that e-learning has **no benefits**, while two said that its **achievements do not justify expenditure** on it, and six that it is **not flexible**. Specialised and technical universities and, to a lesser extent, comprehensive universities were the main source of such negative views which were not articulated by universities of applied sciences or open universities.

Some institutions (19 out of 249) were uncertain about the benefits of e-learning, mainly because their experience of it is quite recent, so that its impact is hard to assess. Other respondents said it had “**mixed results**”, with statements such as the following: “different projects have different degrees of success”; “quantity, quality and value vary a lot”; “depends on the teacher and the subject”; “we are not certain about all the benefits across all disciplines”; “done badly it can lower the quality of the overall experience”. Some respondents cited the readiness and commitment of staff as a key condition for success. This could explain why only around half of them subscribed to the statement that e-learning helps **improve the quality of learning and teaching** (57%), that it **works well** (44%) and that **it is worth the investment** (43%).

A similar “mixed” response was obtained from questions regarding the educational aspects of e-learning.

Figure 26 - Q12: From a pedagogical point of view, what are the main benefits of e-learning at your institution?



Five of the nine benefits of e-learning suggested above were endorsed by the vast majority of respondents (more than 65%):

- They acknowledged its value in **revising teaching methods** (87%). Additional comments confirmed that e-learning helps to establish more student-centred teaching and to develop appropriate learning materials. Students would widely accept these approaches to learning which involve familiar technologies that they use informally every day (mobile devices, applications and social media).
- Over three quarters of respondents (77%) stressed that e-learning is able to **provide interactive learning for larger groups of students**, including learning groups (68%) and interactive cooperation among students (75%).
- E-learning is instructive in **monitoring study progress and collecting data for the analysis of student learning** (76%).

Only about half of the respondents acknowledged the four other suggested benefits of e-learning although, surprisingly perhaps, the other half did not deny them but just remained uncertain:

- Over half of the respondents (54%) stated that **e-learning does not significantly alter traditional classroom teaching**, compared to 23% of those who thought it does make a difference, and 20% who had no firm opinion.

- While around half of the respondents said that e-learning **enables teachers to devote more time to individual students** (e.g. through the flipped classroom), 17% said that it does not, and 28% were uncertain.
- Just under a third (32%) were uncertain whether **e-learning is favourable to language acquisition**.
- In addition, 61% said that e-learning supports students in **developing reflective learning and critical thinking**, while only 6% said it does not, and 30% were not sure.

Apart from the open universities, which are generally far more certain and positive about the educational benefits of e-learning, there is no significant difference between the five types of institution (Table 1, p. 16) in the affirmative statements.

There might be various reasons why respondents remain indecisive about the benefits of e-learning. At some institutions, its practices have not yet been systematically analysed because it has only been recently introduced, or applied in different parts of the institution on a relatively small scale, without a commonly agreed approach to its assessment. Respondents may also have felt hesitant about expressing a firm opinion, as this would imply that e-learning really does achieve better or worse results than conventional classroom learning, for example in language teaching or enhancing student ability to think critically. As suggested earlier, the benefits and success of e-learning may depend on yet other conditions such as thoroughly prepared materials or teacher support.

4.11 Future prospects for e-learning: flexibility of provision, effectiveness and collaboration

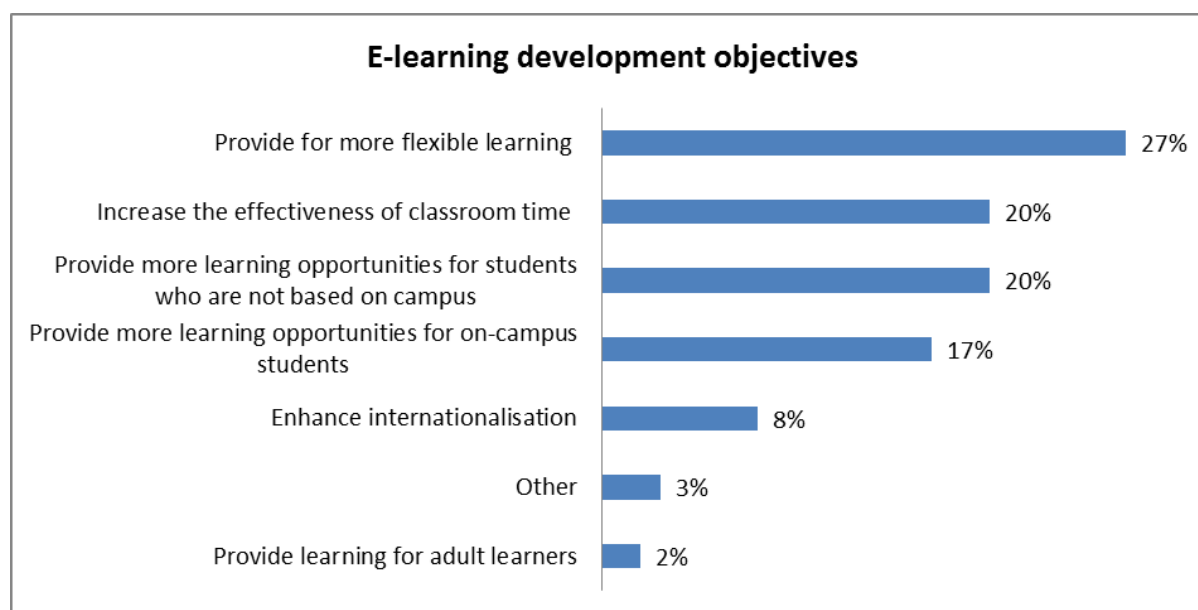
Given the velocity of technical developments and the investment in time and resources that they require to support teaching, it was important to understand the strategic objectives of the institutions as they look to the future.

4.11.1 Flexibility of provision and effectiveness

Flexibility of learning provision, enhanced effectiveness of classroom time, and more and better learning opportunities for distance learning and resident students are the main motives for institutions to develop e-learning further.

The survey considered the future plans for e-learning at the institutions it questioned. Respondents could only select one of the given reply options or provide their own response under the “other” category.

Figure 27 - Q18: What is the most important objective of your institution regarding the development of e-learning in the future?



Over a quarter of the respondents (27%) opted for the fairly broad statement that e-learning provides for more **flexible learning**. One fifth (20%) emphasised the aim of using e-learning to **increase the effectiveness of classroom time** and provide **more learning opportunities for off-campus students** (20%). A slightly smaller proportion of respondents (17%) stated their intention to do the same for **on-campus students**. The response patterns are similar for the five types of institution (Table 1), with the exception of some of the open universities which said they specifically target adult learners.

Obviously, these aims overlap and all respondents endorsed the need for and trend towards flexible learning provision for a variety of learners. Other possible reply options, such as providing (more) learning opportunities for **adult learners** and/or **international students**, could be seen as implicitly included. The responses in the “**other**” category indicated that some universities have several aims regarding the development of e-learning (and thus found it difficult to prioritise one of the proposed options), or expressed their intention to provide better learning opportunities for all students, whether on or off campus.

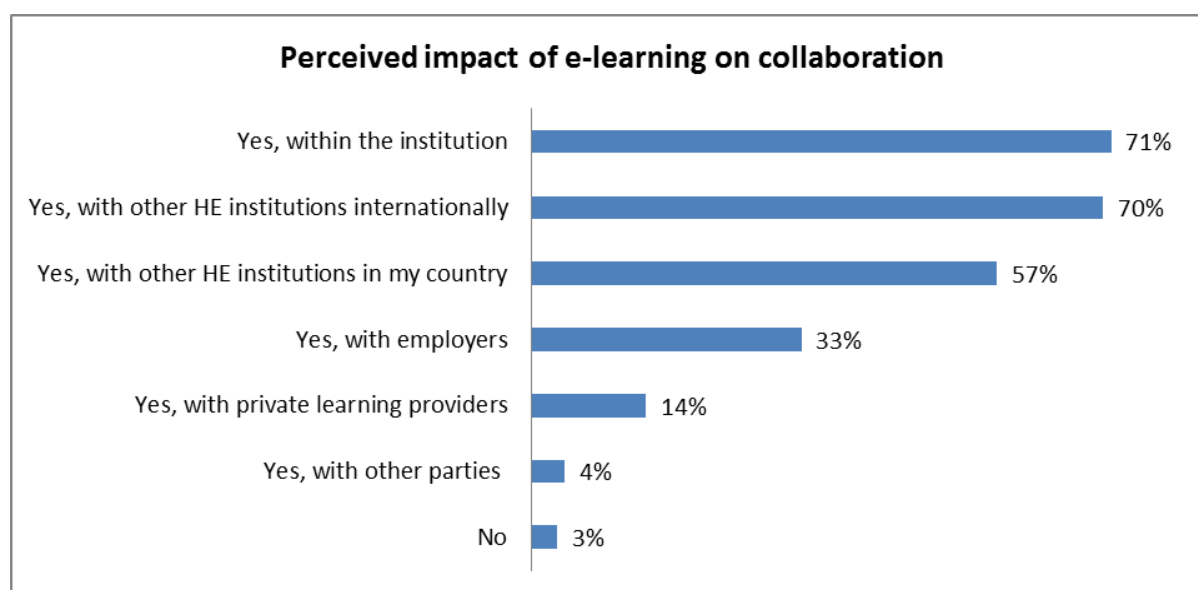
This would also explain why more respondents do not view e-learning as a means of promoting and enhancing internationalisation. However, other results from the survey seem to suggest that the advantages of e-learning for internationalisation have not yet been fully explored. This conclusion would also seem consistent with the growing interest in joint online provision (see Figure 8, p. 26), the general interest in international collaboration (section 4.11.2, p. 48) and the expected impact of MOOCs on internationalisation (section 5.1.2, p. 54).

4.11.2 Prospects for collaboration

E-learning is perceived by the majority of institutions (70%) as a means of collaboration within the institution, and with higher education institutions abroad. Less importance is attributed to collaboration with institutions in the same country, employers and private education providers. Different types of institution have needs and preferences regarding collaboration that vary slightly.

An important factor for the future of higher education lies in its capacity to enable collaboration within an institution among its constituent bodies or staff, but also collaboration with external partners whether in higher education itself or other sectors.

Figure 28 - Q19: Do you think that e-learning will have a significant impact on collaboration? (Multiple choice)



Over 70% of respondents believe that **e-learning will stimulate collaboration within their institution**. Over half the institutions (57%) are hoping to **enhance collaboration at national level**, which is of slightly less interest for specialised higher education institutions. Despite the fact that internationalisation is not regarded as one of the main purposes of e-learning (see Figure 27), collaboration with **higher education institutions abroad** is important for 70% of institutions, though less so for universities of applied sciences (48%).

The perceived value of e-learning for collaboration is also noted in the experience and future plans of respondents as regards online degrees offered jointly with other higher education institutions (see Figure 8). In all, 60% of respondents (82 out of 137) who attach importance to collaboration with other national institutions via e-learning are either already engaged in offering joint online degrees with other institutions or plan to do so. And 59% of institutions (100 out of 171) which believe in the positive impact of e-learning on international collaboration offer or plan to offer joint online degrees.

Around 40% of specialised, technical and open universities, as well as universities of applied sciences look forward to enhancing **collaboration with employers**, while the positive response from comprehensive universities is considerably lower (28%). Interest in collaborating with other external

players is low. Only 14% of the respondents expect to collaborate with private education providers, although interest in doing so is slightly higher among open and specialised universities (around 20%).

Responses in the “**yes, with other parties**” category included alumni, adult education institutions, campus cities, companies and industry, and non-profit organisations such as charities.

The results point to the significant potential of collaborative e-learning initiatives, which deserves further investigation as regards institutional approaches and their added value, as well as their legal and financial implications.

5 Institutional take-up of MOOCs in Europe

Since they first emerged in North America in 2012, Massive Open Online Courses (MOOCs) have attracted widespread attention in higher education and generated much public debate on its future. Following suit in 2013 – albeit somewhat hesitantly – European higher education institutions accounted for around a quarter of the world’s MOOCs²⁰ just a few months later.

This report seeks to consider how MOOCs are evolving at European universities and identify the purposes underlying their use in Europe. Our justification for this is that public debate about them in Europe has occurred mainly with the US backdrop in mind. Moreover, practical experience of the impact of MOOCs on institutions has been only modestly publicised, and mainly in newspaper articles more concerned with their educational, technical and other aspects. At the time of the survey and despite repeated reference to learning analysis, very few if any of the MOOC platforms had published data. Indeed, practical experience of MOOCs has so far been shared by just a handful of universities and researchers in Europe and the US.

In the public debate, MOOCs have been associated with rapid and disruptive – though not unchallenged – changes in higher education provision. In particular, some members of the e-learning and open learning communities have argued that many such changes have long been developed and explored in open universities.²¹

For this reason, it seemed more important to examine MOOCs as a key topical issue in our survey on e-learning of which they are a variant viewed by some as an innovation, and by others as an escalating aberration or even no more than a transient fashion. The results of the survey provide a snapshot of trends apparent in the period from October to December 2013.

The first part (5.1) assesses the institutional take-up and perception of MOOCs at all 249 institutions taking part in the survey. The second part (5.2) describes the experience of the 31 institutions that have established MOOCs or were planning to do so.

5.1 Institutional take-up and perceptions of MOOCs

The purpose of this section is to assess how the 249 institutions that took part in the survey have reacted to MOOCs. It considers whether the institutions have a formal position regarding MOOCs, and what are the motives for developing them. It also looks at the views of their staff.

5.1.1 Institutional take-up of MOOCs

One in eight institutions taking part in the survey currently offers a MOOC. Nearly half of those that do not, intend to do so in the future.

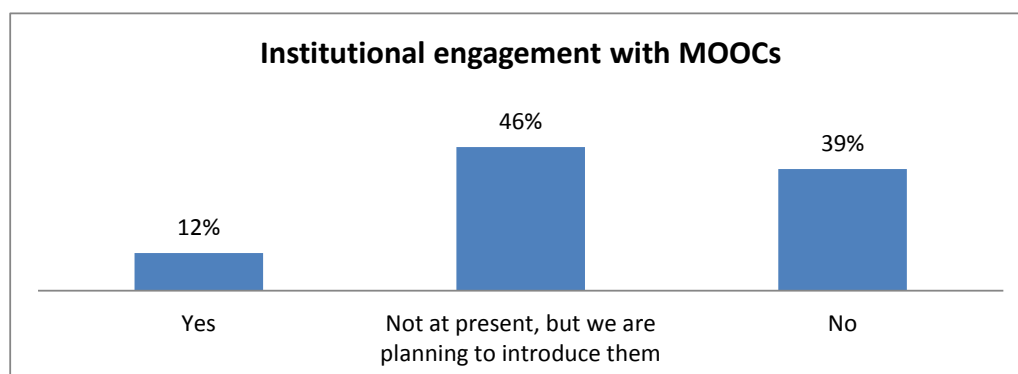
²⁰ This proportion includes institutions in Russia and Turkey. Between October 2013 and March 2014, the number of MOOCs grew internationally both in Europe and well beyond.

See www.openeducationeuropa.eu/en/european_scoreboard_moocs

²¹ For information on MOOCs and their emergence in Europe, see EUA publications at www.eua.be/eua-work-and-policy-area/building-the-european-higher-education-area/e-learning/moocs.aspx

During 2013, the participation of European higher education institutions in MOOCs rapidly increased. Within a year, the number of MOOCs offered by European universities shot up from three to almost 400.²²

Figure 29 - Q22: Does your institution offer MOOCs?



The present survey covered only a fraction of these MOOCs. In total, 31 of the 249 institutions surveyed offered such courses. Eight of them said that they have not yet launched their MOOCs, thus reflecting the speed of the recent trend.

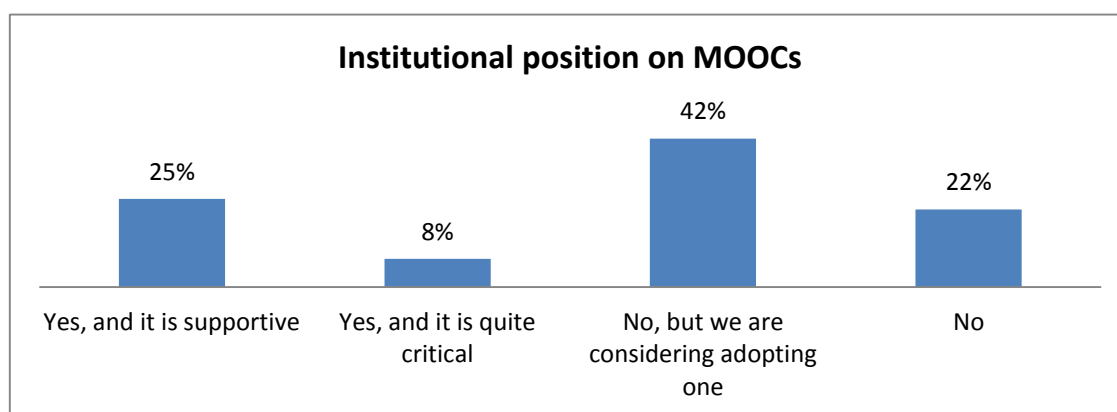
At least in our small sample, the results point to differences among types of institution. Every third technical university and all but one open university offer MOOCs, but only 10% of comprehensive universities and 5% of specialised and applied sciences institutions do so. The situation can also be expressed with respect to universities of different size (see Table 2, section 4.3, p. 9): 25% of very large institutions and 20% of large ones offer a MOOC, but only 5% of small institutions, and 10% of medium-sized ones do so.

But a surprising finding is that another 115 institutions plan to introduce MOOCs. Their intention to do so is consistent with the fact that institutions have adopted **formal positions on MOOCs**:

While only 33% of the institutions have a position on MOOCs – a positive one in the majority of cases – a further 42% intend to develop one.

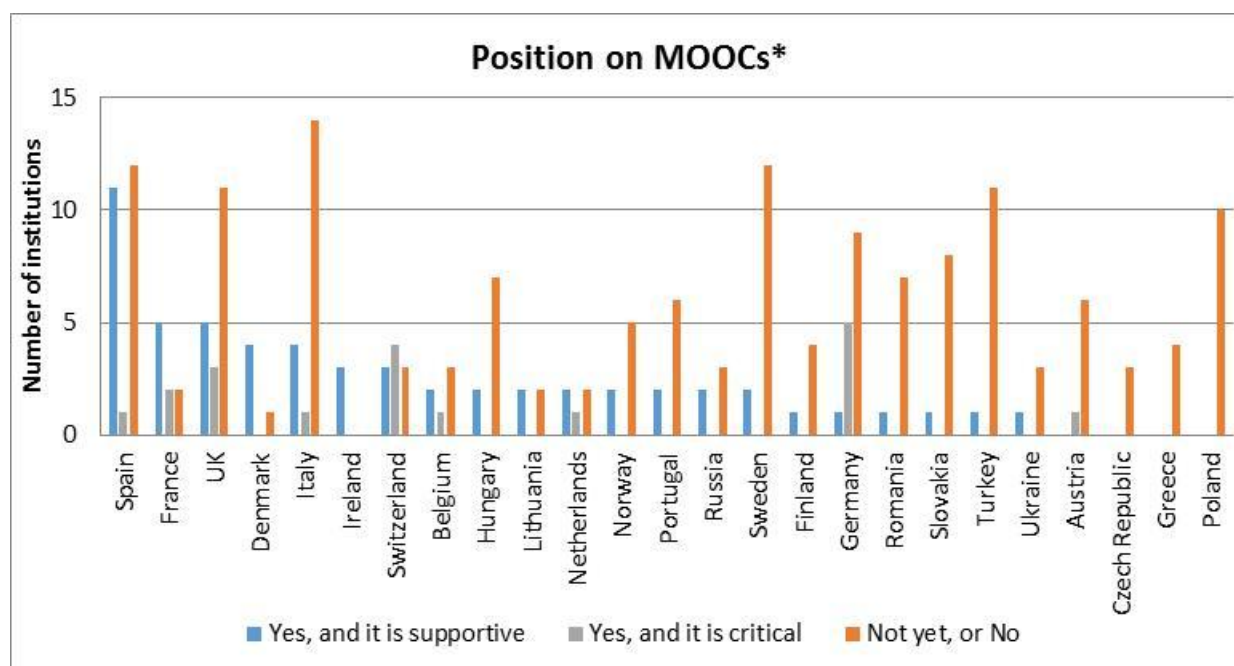
²² According to the European Commission “Opening up Education” website at: http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2013_eac_003_opening_up_education_en.pdf

Figure 30 - Q23: Has your institution adopted a position towards MOOCs?



Overall, 82 of the 243 respondent institutions (33%) have adopted a position on MOOCs: 63 of them are supportive and only 19 (8%) say that they are critical, while a further 105 (42%) are considering the adoption of a formal position. There were also differences between types of institution. Over 45% of the technical universities broadly supported MOOCs, compared with 25% of comprehensive universities and under 20% in the case of both the specialised and the applied sciences institutions.

Figure 31 - Q23: Has your institution adopted a position towards MOOCs?



*in countries with at least 3 responses

Given the small number of institutions relative to each country and to the size of its higher education system, the above findings should not be interpreted as “country trends”. Nevertheless they give some idea of how MOOCs are adopted and perceived differently across Europe:

- Spanish institutions appear to be the most enthusiastic about MOOCs. Of the 24 Spanish respondents, 11 (46%) reported that their institutions are supportive of them, and only one

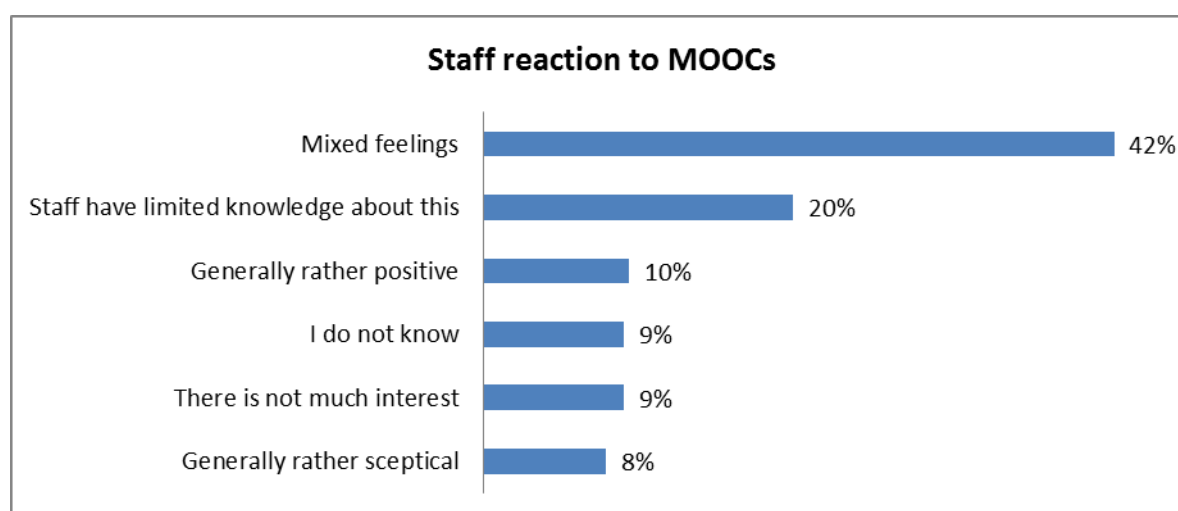
institution has adopted a negative position. And a further 10 Spanish institutions (42%) are planning to establish a position on MOOCs.

- Although many Swiss institutions are actively involved in MOOCs, four out of 10 Swiss respondents were critical of them. Similarly critical responses were received from Germany, and to a lesser extent from the UK in which they were nevertheless outnumbered by positive ones.
- Relatively speaking, many institutions are still working out their position on MOOCs, especially in Austria, Belgium, Finland, Germany, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland, Turkey and the UK.

The survey has also examined staff attitudes towards MOOCs.

Many institutions (42%) reported that their staff had “mixed feelings” about MOOCs, and one fifth of them lacked relevant information. For this reason, forthright positive or negative attitudes towards MOOCs were uncommon.

Figure 32 - Q24: How would you describe the reaction of staff towards MOOCs at your institution?



The proportions of institutions that reported definitely positive or definitely negative staff attitudes towards MOOCs are relatively low (10% and 8% respectively). The largest proportion (42%) described their staff as having “mixed feelings” about MOOCs. A smaller proportion (30%) expressed either lack of interest or limited knowledge. “Limited knowledge” may sound surprising given the extensive media coverage that MOOCs have enjoyed. However, over and above newspaper articles and blogs, more rigorous analytical data remains scarce except in a few English language reports.

Although all types of institutions have mixed feelings towards MOOCs, a higher proportion of technical universities (20%) report positive attitudes than do other types (under 10%, except in the case of open universities). In addition, open universities and technical universities are more likely to describe their staff as “well prepared for MOOCs”. Fewer than 17% of the open, technical and comprehensive universities said that their staff would lack the information and knowledge needed to deliver MOOCs, compared to 29% of the universities of applied sciences and 37% of the specialised institutions.

The data from our survey suggests that positive staff attitudes towards MOOCs and positive positions on them adopted by institutions may be at least partly correlated. By contrast, mixed feelings and lack of knowledge among staff seem not to preclude institutions from adopting a positive position.

It is hardly surprising that staff have mixed feelings about MOOCs and that institutions feel under pressure to express a position on them, since they correspond to a recent trend in which the empirical data needed for a sound judgement is still scarce. This lack of data is reflected in the controversy surrounding MOOCs in academic and policy-making circles. Arguments for or against them are likely to become much clearer once more extensive practical experience of implementing them and – by the same token – more relevant and reliable scientific data have been acquired. However, the fact that many institutions feel obliged to adopt a formal position suggests that MOOCs are taken seriously, whether this is because of their alleged potential for disrupting established conventions and practice, or because they are the catalyst for a long overdue debate on learning, teaching and technology take-up.

While the discussion on MOOCs, therefore, may be hyped up or reflect a passing trend, interest in them has far from peaked in Europe at least. Indeed, it will be interesting to see how many more European institutions become involved in MOOCs as part of a sustainable trend. The fact that many universities still have not worked out a position on them, despite their intention of doing so, clearly demonstrates that MOOCs are now a subject of institutional debate. This contrasts markedly with the results of a survey in the second half of 2012 in which only 33% of respondents said they had discussed MOOCs at their institutions.²³

For what reasons, then, do institutions become involved in or refrain from involvement in MOOCs?

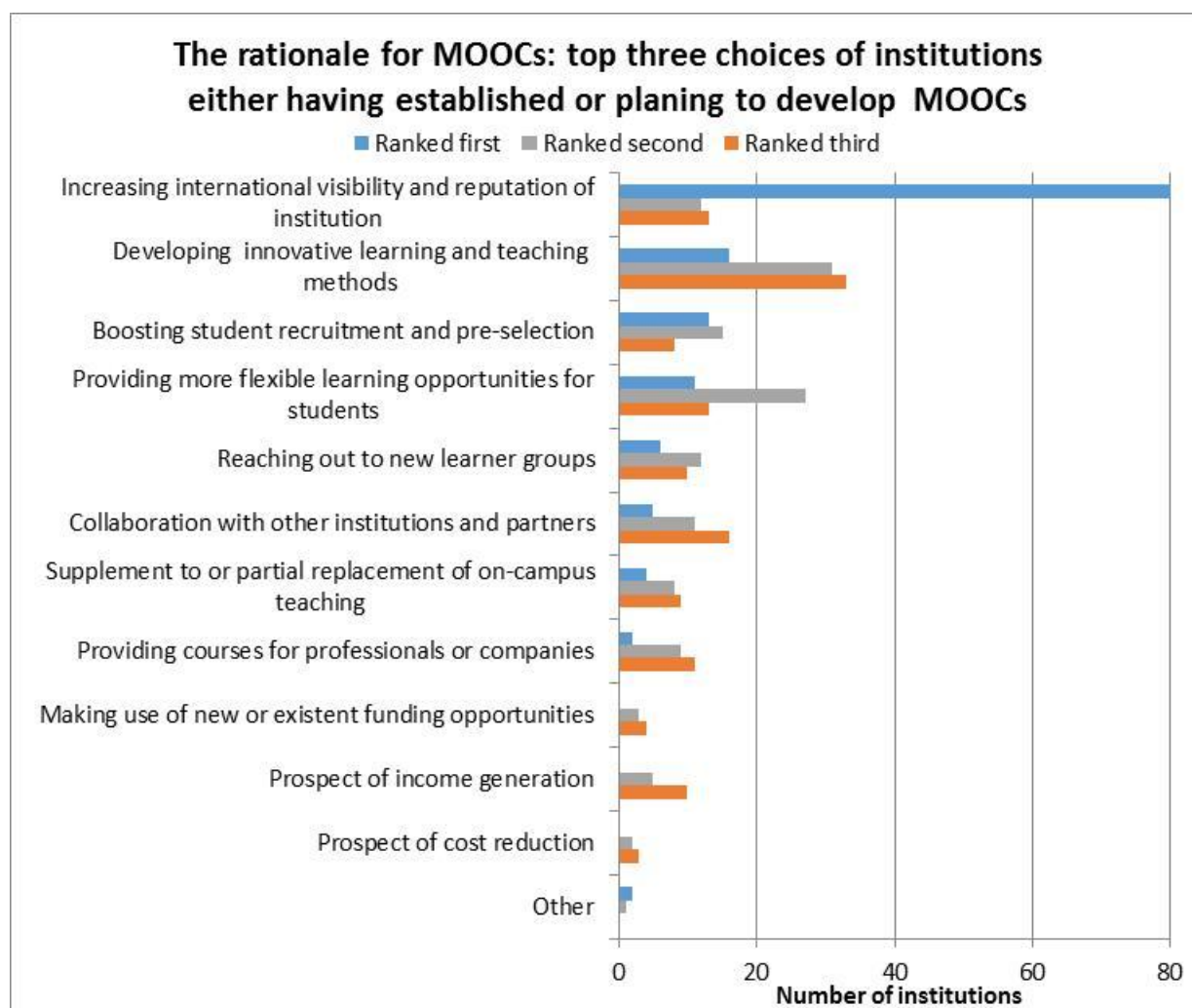
5.1.2 Reasons for involvement or lack of interest in MOOCs

International visibility is by far the most common motivation for developing MOOCs, followed by the wish to boost student recruitment. Other reasons given were their potential scope for developing innovative teaching methods and more flexible learning opportunities for the institution's own students.

As differences in the answer patterns of the 31 institutions that already offer MOOCs and the 115 that plan to do so were insignificant, the replies from both groups have been aggregated:

²³ See the 2013 EUA membership consultation on internationalisation.
www.eua.be/Libraries/Publications_homepage_list/EUA_International_Survey.sflb.ashx p.19.

Figure 33 - Q27: What are the main motivations of your institution to introduce MOOCs?

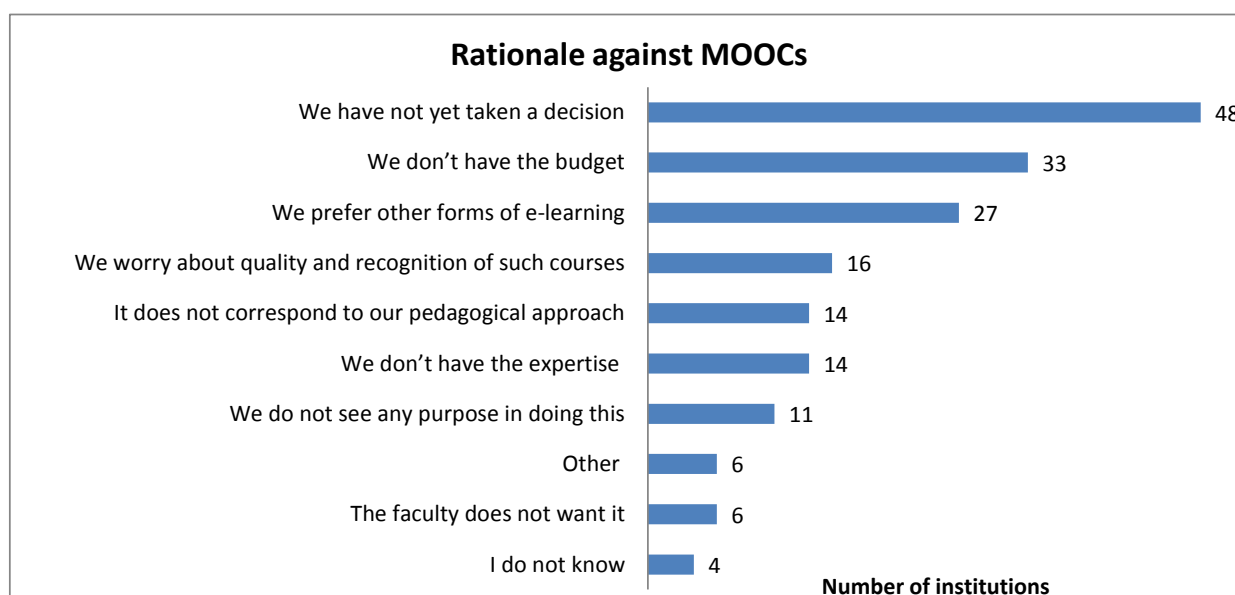


“Enhancing international visibility and reputation” was the prime motivation for interest in MOOCs at 80 institutions (consisting of 20 with MOOCs and 60 planning to develop them). Next came “developing innovative learning and teaching methods” which was ranked by only 16 institutions as a top priority, but by a further 64 as the second and third priorities. Interestingly, “student recruitment and pre-selection” were the first priority for only one of the institutions that already have MOOCs but for 12 institutions intending to develop one. Around one third of institutions viewed MOOCs as a means of providing their own students with more flexible learning opportunities.

Interestingly, no answer options concerned with the potential return on institutional investment, such as those citing “income generation”, “cost reduction”, “funding opportunities” or “courses for professionals or companies” were selected as a top priority and only rarely ranked second or third, despite reference to them as motivating factors in the ongoing debate on MOOCs. On the contrary, there is apparent concern over a lack of funding and the costs that MOOCs generate as indicated in Figure 30 (above).

The most frequently given reasons for not developing MOOCs were that no decision has yet been taken to implement them, or that their development was prevented by financial restrictions. Elsewhere institutions reported a preference for other forms of e-learning, or expressed concerns relating to educational issues or academic recognition.

Figure 34 - Q25: What are the reasons for not offering MOOCs at your institution? (Multiple response)



Out of the **98 institutions** that said they do not offer MOOCs and have no immediate plans to do so, around half (48) said that no decision had yet been taken on the matter, and over a third (33) stated that financial restrictions were a barrier. It would seem that these institutions have no objection in principle to MOOCs, which once more suggests potential for their further growth in Europe.

However, nearly a third of the institutions (27) said that they preferred other forms of e-learning, or expressed concerns about the pedagogical approach of MOOCs (14), quality and recognition (16), or the purpose of developing such courses (11). For example, one institution commented: “we invest in teaching and learning at our university, not worldwide”.

Interestingly, only six institutions said they would not offer MOOCs as a result of faculty opposition or lack of interest, which is consistent with the fact that many of them appear to be initiated by the leadership of institutions and as a result of centralised planning (see section 5.1.3, p. 57).

It is commonly assumed that higher education institutions shy away from technological and learning innovation, as sometimes suggested in the media. However, as virtually all respondent institutions are involved in some form of e-learning, any lack of interest or criticism regarding MOOCs – which is in any case only expressed by a minority of the institutions surveyed – is hardly attributable to general distrust of ICT-based learning or pedagogical innovation. From the cross-checking of data, it was clear that neither the institutions which had already established MOOCs, or those planning to develop them were very different from the rest of our sample where e-learning strategies and activities were concerned. It seems self-evident that more fully honed approaches to e-learning and

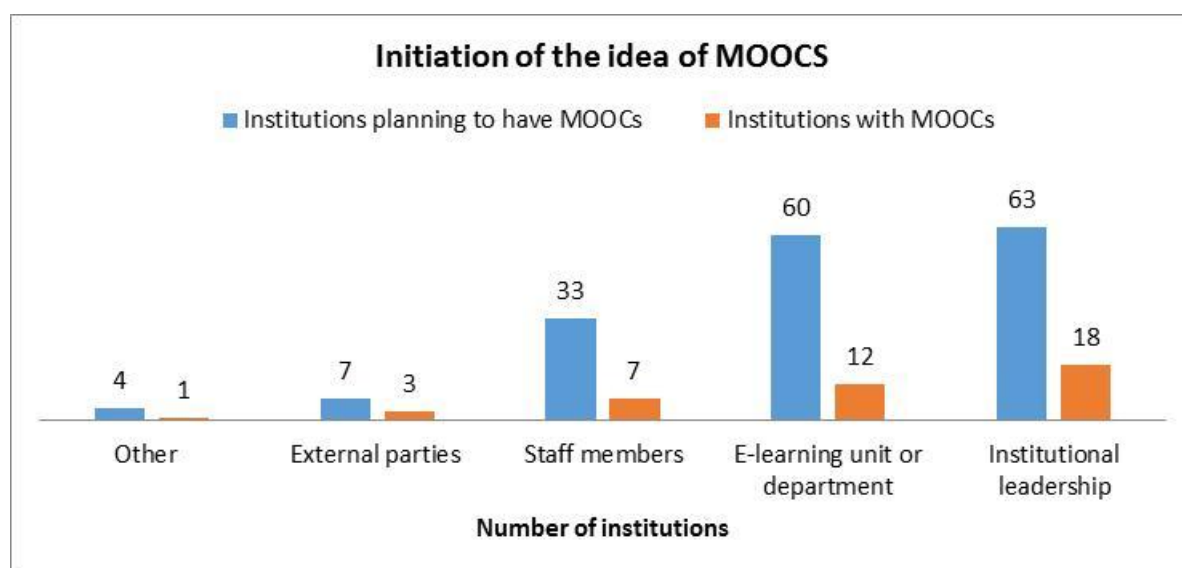
greater commitment to innovative teaching methods and practice might be motives either for experimenting with MOOCs or, alternatively, for refraining from involvement in them.

5.1.3 Initiating MOOCs

In the first instance, MOOCs have been introduced mainly on the initiative of the institutional leadership, in collaboration with individual staff members and dedicated e-learning structures. So far, outside bodies have played only a minor role.

Once the formal decision to introduce a MOOC has been taken, what internal and external forces actually come into play?

Figure 35 - Q26: Who initiated the introduction of MOOCs at your institution? (Multiple response)



Responses from the 31 institutions that have MOOCs and the 115 planning to develop them concur in the important role of institutional leadership. Both groups also acknowledge the active contribution of e-learning units or departments and the involvement of individual staff. Here again, the results vary with type and size of institutions. Thus, universities of applied sciences and smaller institutions in general highlight the role of individual staff members in introducing MOOCs, while universities of applied sciences and technical institutions more often emphasise the contribution of external parties.

Overall, however, external parties seem generally to play only a minor role, confirming the general observation that – despite the promise of MOOCs in terms of innovation – most national governments and other donors have been fairly cautious in stimulating institutional take-up. Reference is made to three groups in particular:

- national or regional governments, which are more frequently cited by institutions currently developing MOOCs;
- support from organisations such as the EADTU, foundations such as Universia and MOOC platforms such as Miriada X;²⁴

²⁴ A university network of the Santander Bank Foundation.

- other higher education institutions as partners.

One institution reported (under the “other” category) that “enthusiastic students” have initiated the introduction of MOOCs.

This seems to confirm that so far at least the impetus for MOOCs has been essentially institutional, with little or no external stimulation and support.

With the initial wave of enthusiasm for MOOCs now seemingly over, higher education institutions are no longer jostling with each other to be among the first to develop them. Instead, institutional decision-making appears to be becoming more reflective and complex. As it does, the systematic use of e-learning expertise and capacity at institutions is important as regards the integration and sustainability of MOOCs within overall institutional goals and efforts to achieve quality.

There is a sense that institutions and their leadership are cautiously positive about MOOCs, without often taking big risks. Most of them have introduced just one or two MOOCs, and only a few seem to have developed a strategy and invested heavily. Leaders at universities in the US are also reportedly somewhat sceptical about MOOCs but have often had to bow to pressure from their external boards to get involved in them.²⁵ While many institutions report “mixed feelings” among staff, opposition to MOOCs does not seem very widespread and reservations about their quality and the methods of teaching and learning involved are fairly mild.

Like institutions themselves, most national bodies have been somewhat cautious in their policy-making. For example, the Norwegian government has established a special Commission “to inquire into the possibilities and challenges that accompany the development of MOOCs and similar offers”.²⁶ Institutions and governments alike have been sensitive not just to the cost issue, but to the educational, technical, organisational and cultural challenges that e-learning in general and MOOCs in particular might entail. A further relevant consideration may be the financial crisis and the fact that MOOCs offer no ready formula for securing budgetary savings.

Yet overall, evidence from the survey suggests that more institutions in Europe will consider developing MOOCs, once they have established appropriate decision-making mechanisms and identified possible sources of funding. And, clearly, fresh financial incentives or extra funding for MOOCs might speed up this process at any time.

5.2 Institutional experience of MOOCs

The purpose of this section is to consider the practical experience of the 31 institutions that have reported offering MOOCs. Eight of them had not yet launched these courses at the time of the survey. While this means that the sample is very small and not necessarily representative of MOOCs

²⁵ Scepticism on the part of institutional leadership is reflected in the results of a May 2013 Gallup survey which suggested that most university presidents are wary of the alleged benefits of MOOCs. www.insidehighered.com/news/2013/05/02/survey-finds-presidents-are-skeptical-moocs#sthash.JEqYhMmi.dpbs

²⁶ *Time for MOOCs – MOOC Commission sub-report*, 13 December 2013. www.regjeringen.no/upload/KD/Time_for_MOOCs.pdf

at European universities as a whole, it does offer an account of first-hand experience which the present report has not so far covered.

The institutions concerned are in the countries listed below.

Table 5 - Breakdown by country of institutions with MOOCs

Country/higher education system	Number of institutions
Denmark	3
France	2
Germany	3
Ireland	1
Italy	1
Netherlands	2
Norway	1
Portugal	1
Russia	1
Spain	9
Switzerland	3
United Kingdom	3
Other	1
Total	31

The country distribution to some extent mirrors what has been set out in the European Commission “European MOOCs Scoreboard”, in which Spain, the UK and Germany report the most MOOCs.²⁷

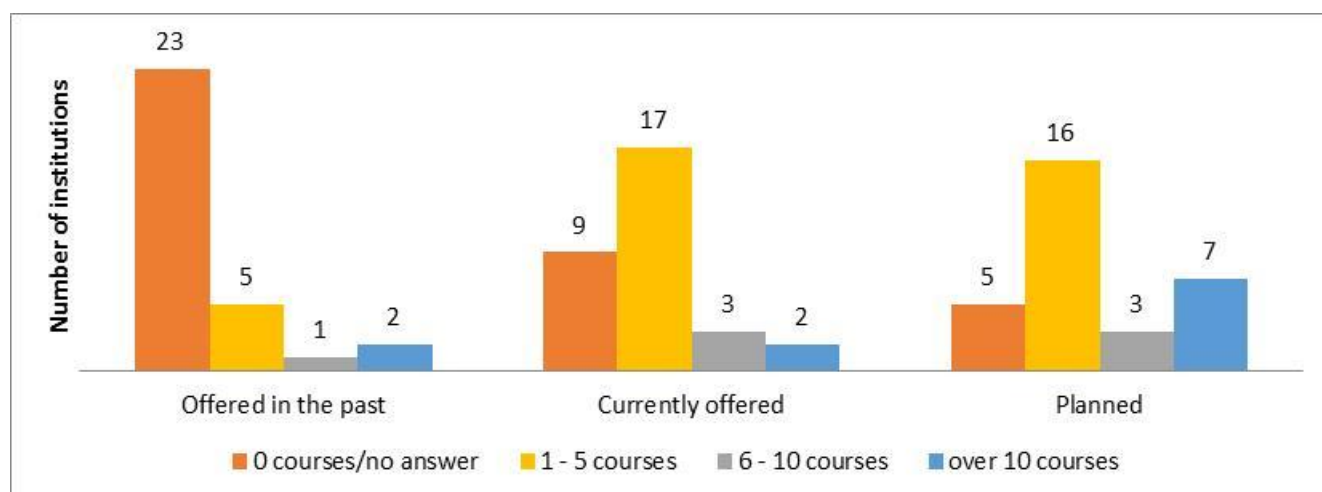
5.2.1 Courses provided

At present, massive involvement in MOOCs is rare, as most institutions prefer to experiment with just one to five courses.

For a better insight into the scope and dynamics of institutional involvement in MOOCs, the study has considered their provision in terms of past, present and future circumstances.

²⁷ http://openeducationeuropa.eu/en/european_scoreboard_moocs

Figure 36 - Q28: Past, present and planned MOOCs offered at 31 institutions



While, **in the past**, 23 of the institutions surveyed (the majority) offered no MOOCs, eight others claimed to have done so and apparently decided to continue.

At present, 17 institutions (the majority) offer one to five MOOCs. Nine more institutions have said that they are about to introduce at least one such course, implying therefore that they currently have none on offer.

Almost the same number of institutions (16) plan to introduce **in the future** between one and five MOOCs. Nine institutions offer at least six MOOCs and six of them offer over ten, while six that currently have MOOCs are not planning any more in the future.

The foregoing information suggests that institutions differ in their strategic approaches. Most seem to engage in an experimental phase in which they first develop one or two MOOCs to assess their impact and costs. However, others are capable of making a larger immediate investment. Two UK universities are intending to launch four or five MOOCs simultaneously, while an Italian and Swiss institution plan to start six each, and a Russian institution as many as 20.

How many of these MOOCs are sustainable may depend on several factors, including of course their perceived benefits and the retention of adequate funding and staff support. While different in nature, the effort involved bears comparison with that of other pioneering academic initiatives such as joint degree programmes. While it would be premature to predict the sustainability of MOOCs as a genre, the following is a plausible scenario:

- Some institutions continue increasingly to develop MOOCs which they view as appropriate for the delivery of teaching both within and beyond their premises. They are rewarded materially and in terms of an enhanced reputation, as they develop an economically sustainable and institutionally ingrained process for devising and delivering the courses concerned with due regard for technical and resource issues.
- Other institutions might maintain a less intensive involvement with MOOCs mainly on the initiative of individual staff members, with just a few courses in especially strong subject areas or ones in which they seek a higher international profile. Here, key benefits might be

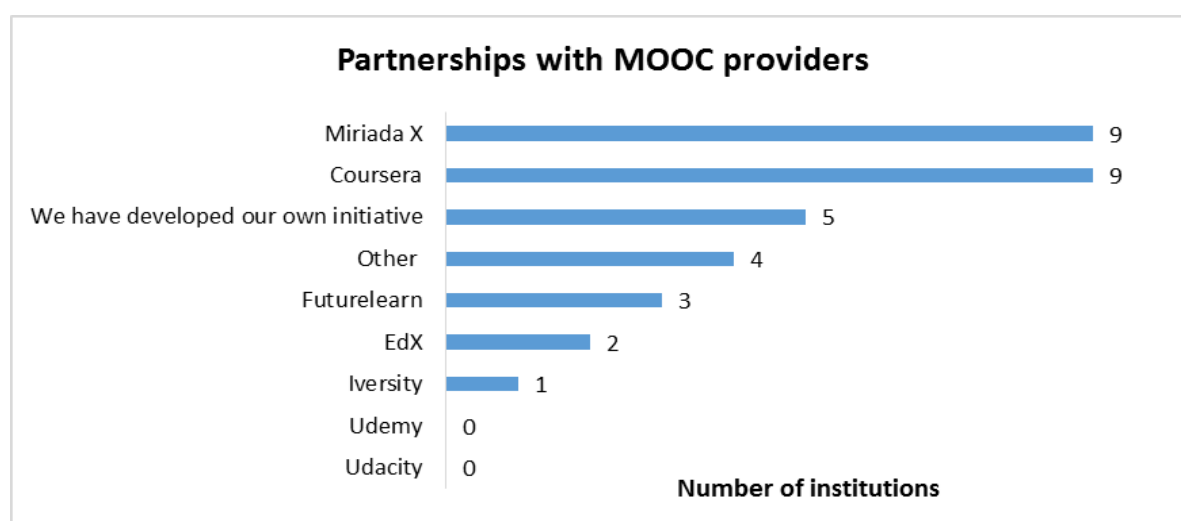
greater international visibility, the promotion of teaching and research, and more innovative experimentation in both learning and teaching alike.

5.2.2 MOOC platforms

Institutions seem to depend largely on US platforms for their international visibility, although European platforms conditioned mainly by nationality and language factors are emerging.

In order to transmit their MOOCs, most of the 31 European institutions concerned collaborate with the various commercial or non-profit platforms shown in Figure 37.

Figure 37 - Q29: Is your institution partnering with any of these major MOOC providers?



Two **US platforms** with a high international profile were specified in the questionnaire, and 11 of the institutions in the sample collaborate with one of them. Nine of the 11 have chosen to work with Coursera, the largest platform hosting around half of all MOOCs worldwide, while two institutions collaborate with EdX, a highly selective platform. Although certain European universities are known to have partnerships with other US platforms, this does not apply to any of those in the sample.

However, 13 institutions have joined **European platforms**:

- Miriada X is a Spanish platform for connecting Spain and Latin America, and all seven Spanish universities with MOOCs report using it.
- Three UK institutions – two universities and the Open University – collaborate with FutureLearn, launched as a UK initiative. Although it now brands itself as targeting the UK, it has included institutions from other anglophone countries.
- One German university of applied sciences says that it collaborates with Iversity, which has been launched as a European platform but which hosts mainly courses from German institutions, some of them in English.

Six institutions have developed their **own initiatives**. Four of them are Spanish institutions, which have done so alongside their partnership with Miriada X. One other institution runs a MOOC through

its Moodle platform, while yet another is involved with several platforms but also has its own resources for transmitting MOOCs.

Different factors account for these variations in the means adopted by institutions to transmit their MOOCs. They include the following:

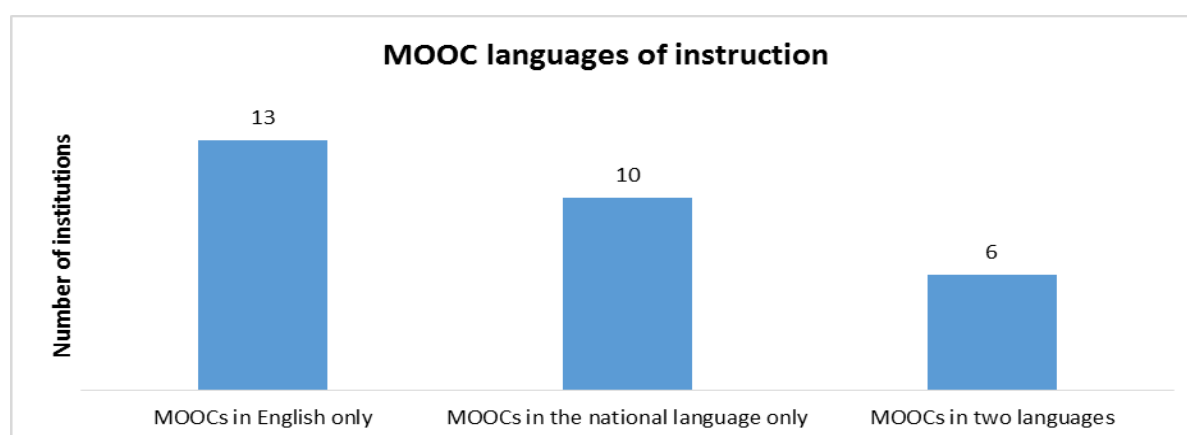
- The choice is not always that of the institution alone. Most platforms are in some way selective, as they have to develop a reputation and a profile. Applicants for collaboration with EdX and Coursera reported longer waiting periods, and in some cases rejection.
- The purpose and target audience can be important factors. If a MOOC is not intended for learners worldwide, but focuses on a specific target group (identified for example by the language of instruction or the subject studied), its transmission via a major platform is probably unnecessary.
- Some European platforms are very recent – for example, Iversity and FutureLearn were launched only towards the end of 2013 – which explains why they currently have fewer partnerships with academic institutions. As already pointed out, FutureLearn is also more selective and works primarily with UK universities, along with just a few from other English-speaking countries.²⁸
- Costs and funding opportunities may be significant. Miriada X and Iversity provided incentives for institutions to develop MOOCs. However, seed money alone is unlikely to be a decisive factor in the choice of a platform, given the importance also of international visibility and reputation.
- Language may be a central determinant. Although some US platforms have started to offer courses in languages other than English, the latter still predominates. European platforms tend to be geared to national languages, or are even the result of national projects or strategies (such as FutureLearn or France Université Numérique).
- Finally, reasons for choosing certain external platforms or for transmitting MOOCs from the institution's own platform(s) might stem from a need to lower costs, or to ensure interoperability with the institutional platform or institutional independence from external parties. Further significant factors might include the wish for freedom in designing MOOCs, full ownership of licenses, and administrative and organisational sustainability. As most platforms have been established recently and are still developing their business models, risk-spreading could be yet a further reason for not putting all MOOCs at an institution on one platform.

5.2.3 MOOC languages of instruction

Although MOOCs in Europe conform to the general trend in which English is the foremost language of instruction, they nevertheless make a modest but significant contribution to language diversity.

²⁸ National platform development trends are examined in the most recent EUA Occasional Paper on MOOCs (January 2014): www.eua.be/Libraries/Publication/MOOCs_Update_January_2014.sflb.ashx

Figure 38 - Q30: In what languages are courses available (current and concluded courses)?

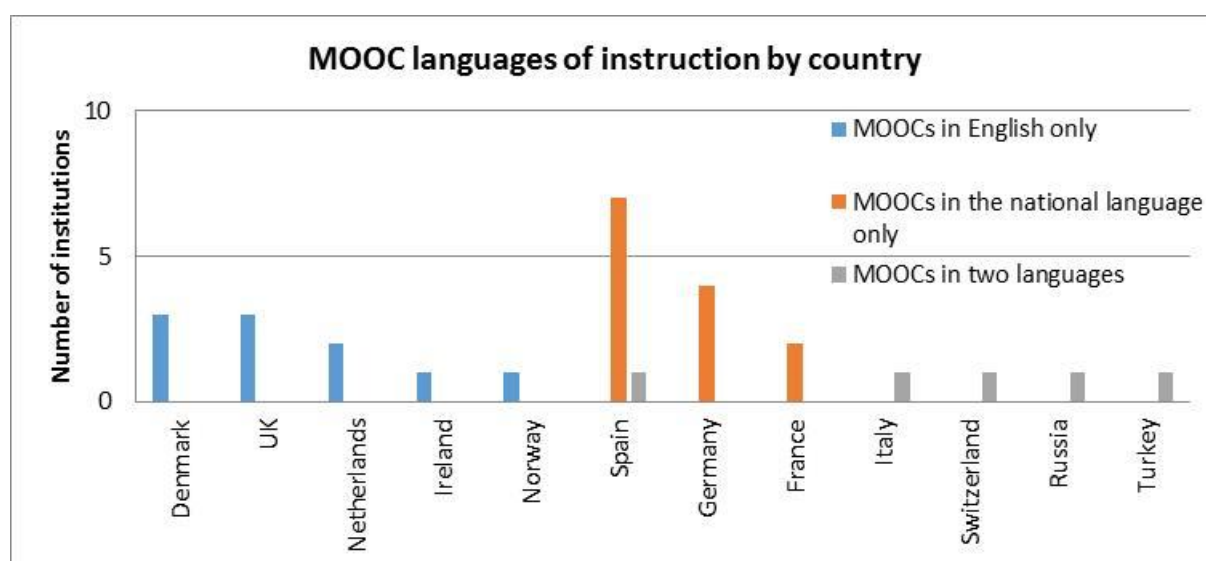


Courses use English as the language of instruction at 13 institutions, while 16 offer them in other European languages such as French, German, Italian, Russian, Spanish and Turkish. One MOOC is also offered in Catalan. Six of these 29 institutions (in Italy, Russia, Spain, Switzerland and Turkey) offer courses in two languages, namely the native language (French, Italian, Spanish, Russian, and Turkish) and – in all cases but one – English.²⁹

Courses delivered in one language only are offered at 23 institutions:

- 10 institutions in Denmark, Ireland, the Netherlands, Norway and the UK offer courses in English only, reflecting a strong tradition of English-taught education in northern Europe.
- 13 institutions offer courses only in the national language of their country: Spanish (seven universities in Spain),³⁰ German (four universities in Germany), and French (two universities in France). These are countries with relatively large populations and prominent national languages.

Figure 39 - Q30: In what languages are courses available (current and concluded courses)?



²⁹ The exception is a Spanish institution offering MOOCs in Spanish and Catalan.

³⁰ Although Catalan is the language of instruction at one of the Spanish institutions, the MOOC is nevertheless offered in Spanish.

English is without question the dominant language of instruction for MOOCs, and essential for international communication and outreach in most parts of the world. It is also the language of instruction in regular on-campus teaching in several European countries in which it is not the national language, as well as in European and other international academic exchanges (e.g. those involving joint study courses).

Courses in other languages are usually delivered in the national language, which may also be widely spoken elsewhere. Thus MOOCs offered in Spanish potentially target Latin America, while those in French are suitable for many parts of the world including francophone Africa, and Russian is still the lingua franca in certain regions of the former Soviet Union.

It is of some interest whether MOOCs in (say) German, Italian, Turkish and Catalan primarily target the countries in which they are mainstream national or regional languages, or whether they aim to reach learners in their emigrant communities abroad or others also competent in those languages worldwide. Furthermore, some courses may arguably use such a language to enhance their distinctiveness vis-à-vis the dominance of MOOC delivery in English.

Two of the institutions in the sample offer some of their MOOCs in a national (Switzerland) or regional language (Spain) although this is not the institution's normal language of instruction.

It will be interesting to see whether multilingualism will be sustainable and perhaps even flourish in the longer term. One might speculate that MOOCs are offered in just one language for the sake of simplicity at the outset, but that institutions with greater experience of these courses will be tempted to diversify their delivery into other languages. Academic exchanges and partnerships, as well as interest in targeting countries and regions further afield, may also stimulate courses in other languages and the translation they entail.

5.2.4 Participation and completion rates

While a few MOOCs in the survey sample peak at an enrolment level of tens of thousands, the average participation stands at just a few thousand. Participation is often composed, to varying degrees, of different groups of learners from within and outside the country, as well as the institutions' own students. The completion rates are on average 10-20%.

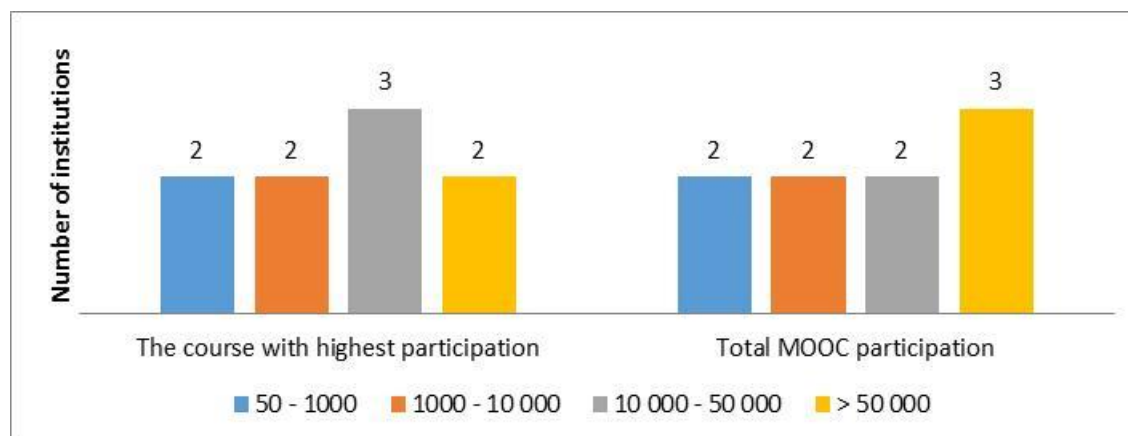
The fact that MOOCs can provide a learning experience for almost limitless numbers of learners was clearly one of the distinctive features responsible for the dramatic sudden interest in them. But it was soon apparent also that courses with student enrolment levels in the tens of thousands are the exception rather than the rule. Furthermore their high dropout rates sparked criticism, particularly given the current emphasis on retention and completion in higher education in general.

Therein lies the justification for assessing how these matters are perceived at European institutions. Unfortunately, only nine of the institutions taking part in the survey provided information on

participation and completion.³¹ While there may be several reasons for this, it certainly underlines the need for enhanced data collection (see section 5.2.7).

Participation varies greatly. The highest enrolments stood at well over 50,000, but most of the MOOCs surveyed attracted no more than a few thousand learners, or even less. Indeed, one course reportedly enrolled only around 100 students. Still, compared to on-campus teaching these are very high numbers.

Figure 40 - Q33: Participation in MOOCs. In the past academic year (2012-2013), how many students signed up for MOOCs that your institution offered?



MOOCs are renowned not only for large, but also **highly international learner attendance**.³² However, as a matter of fact, at most of the 31 institutions, MOOC participation consisted in a combination of their own students, other domestic learners and international learners: 24 institutions involve all three groups, whereas the remaining seven institutions involve only one (two institutions) or two (five institutions) of these learner groups. At three institutions participation is even composed of equal shares from the three groups.

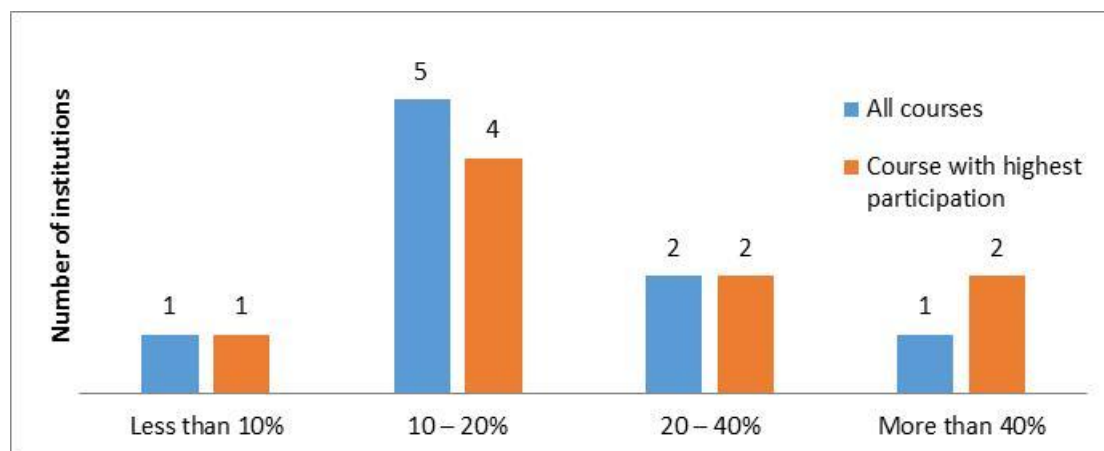
At 13 institutions more than 50% were indeed international learners, hence confirming the often stated purpose of international visibility and outreach. But another eight institutions involved mainly domestic learners (excluding the institution's own students) and another three mainly their own students. Composition varies so strongly that any graphical presentation results in institutional profiles, rather than in a readable figure.

This could also be one of the reasons **why completion rates** vary between 4% and 50% depending on the institution and the course. The completion rate at five out of the nine respondent institutions reportedly ranges between 10% and 20%. The median completion rate is 15%. Interestingly, smaller courses appear to have higher completion rates, perhaps as a result of their targeted provision, support services and the award of credits.

³¹ Some courses had not yet started or started only recently. In addition, several inconclusive replies had to be disregarded.

³² All 31 institutions (including the eight that had not yet started their MOOCs) provided information on the composition of the learners on their MOOCs, presumably based either on collected data, or an estimate.

Figure 41 - Q33: Completion of MOOCs. In the past academic year (2012-2013), how many students signed up for MOOCs that your institution offered?



It might be thought that real participation in European MOOCs is not massive. Yet in the context of MOOCs worldwide – currently numbering some 1 600 in all – enrolment levels that reach tens of thousands of learners will probably remain an exception. “Massiveness” is relative and several thousand students is a relatively high number for conventional institutions, in which a lecture hall containing several hundred is normally regarded as packed out and not very convenient.

Despite the wide variety of institutions and their courses, many of them attract amorphous groups of learners from outside the institution or country, in a way consistent with what MOOCs stand for. The transmission of MOOCs via a platform which has yet to establish an international reputation, or by the institution’s own means are perhaps evidence of a more varied range of distinct target groups than the MOOC acronym first suggests. However, there are signs that some institutions try to shape their MOOC enrolments by seeking target audiences in certain countries or regions, in their own country, or among their regular students.

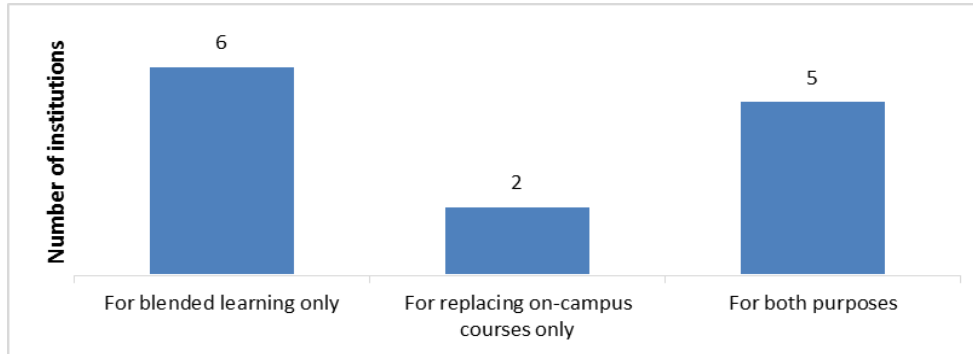
It might be asked how far this corresponds to the determination of most institutions to achieve a high international profile. But it would explain why some MOOCs are offered in languages which may be widely spoken, but not necessarily worldwide or in international higher education.

As MOOC learning has so far been broadly voluntary and provided free of charge with no credit-type assessment, the question of completion is not a critical issue. However, differences in the completion rate – as referred to above – may also be due to different purposes and target groups, and demonstrate that there are ways completion can be influenced.

5.2.5 Integrating MOOCs into the provision of teaching and learning

Some institutions use MOOCs in blended learning or to replace on-campus courses.

Figure 42 - Q36: Does your institution use MOOCs in blended learning and/or to replace on-campus courses?



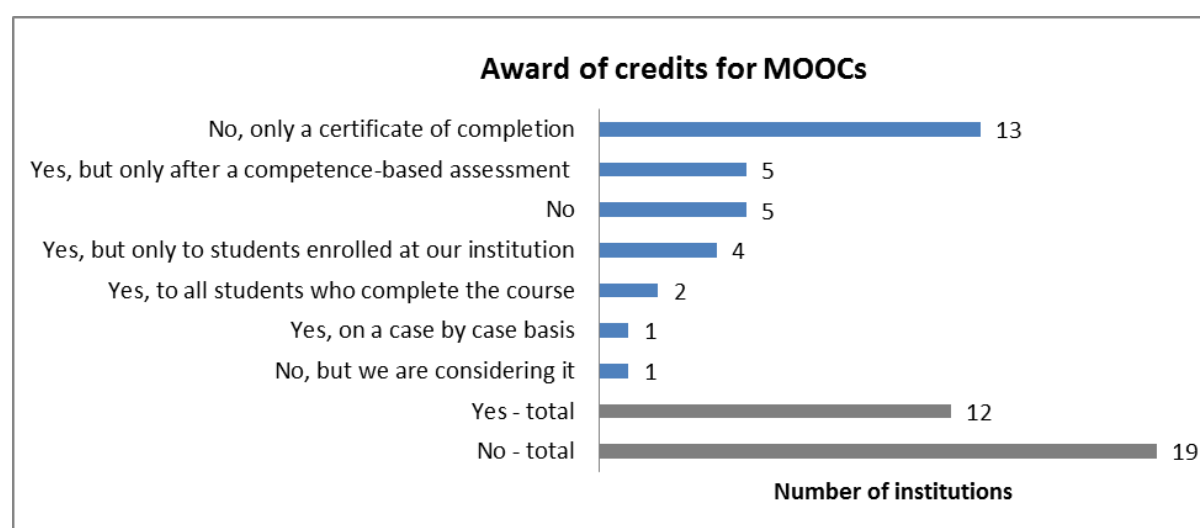
The survey considered how far MOOCs are used in blended learning or as an alternative to conventional on-campus courses. As shown in Figure 42, six of the 13 respondent institutions use MOOCs for blended learning, two for replacing on-campus courses, and five for both purposes. Six of them are in Germany and Switzerland (three institutions each), while the others are in Denmark (1), France (1), Ireland (1), Spain (2), Turkey (1) and the UK (1). Whereas most of the respondent institutions prefer using their own MOOCs for blended learning or on-campus courses (9 out of 13), four additionally use courses developed by other providers for blended learning or online learning.

Fresh answers to the same question should be sought in two or three years to see whether these approaches have changed. It is possible that institutions are increasingly incorporating MOOCs into their regular course provision and using them as a teaching tool in blended learning.

5.2.6 Validation of MOOC learning

A third of the universities award credits for their own MOOCs under certain circumstances. There is growing pressure on institutions to recognise learning outcomes and award credits both for their own MOOCs and those delivered by other institutions.

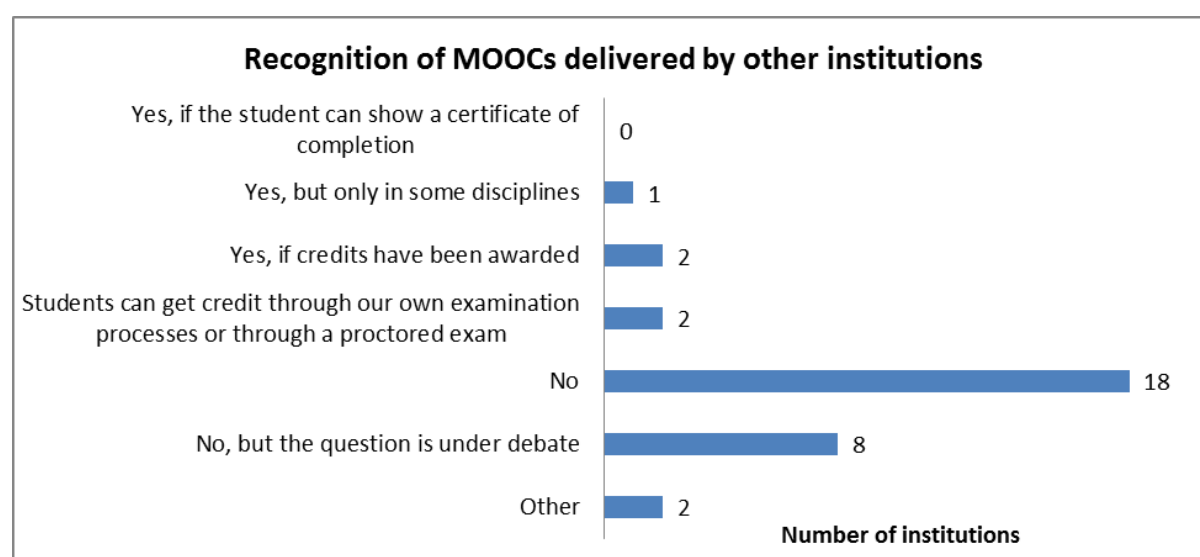
Figure 43 - Q37: Does your institution award credits for its MOOCs?



MOOCs were first developed on the understanding that their satisfactory completion would not result in the award of academic credits to students enrolled on them. Yet this has now become a controversial and widely discussed issue, and pressure is growing on institutions to award some form of academic recognition. This ongoing controversy is reflected in responses to our survey.

Asked whether they would award **credits for their own MOOCs**, 12 of the 31 institutions said they award credits to all students (2 institutions), only to their own students (4 institutions), on a case-by-case basis (1) or by means of a competence-based assessment (5). Of the 19 other institutions that do not award credits, 13 award completion certificates (although one notes that the certificate is awarded by Coursera). One institution also has plans to award credits.

Figure 44 - Q38: Does your institution recognise (with credits) MOOCs delivered by other institutions? (Multiple choice)



Five institutions would **recognise a MOOC offered by another institution**, but only under certain conditions. One institution specified that it would be for courses in “certain disciplines”; two would require that credits are awarded for the course; a further two would accept credits only in the case of a proctored examination (i.e. by a trusted external party).

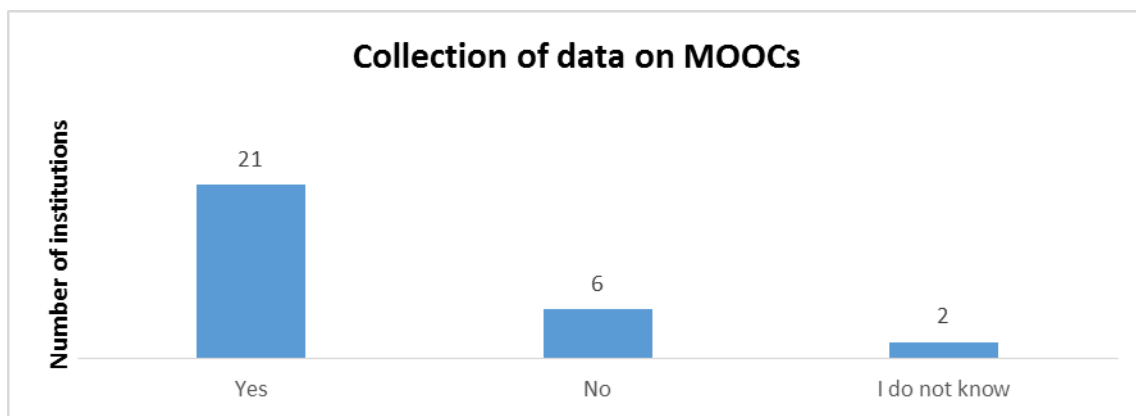
While a further 26 institutions reported that they do not recognise learning from MOOCs delivered by other institutions, eight of them said that this issue was under discussion.

Indeed, recognition of courses developed by other institutions remains a problem in conventional on-campus provision, so the situation is even more complex in the case of MOOCs which were originally intended to provide informal learning on the assumption that institutions would be able to distinguish between their own regular students and all others. It will be interesting to see how this issue develops in the European Higher Education Area in which the Lisbon Recognition Convention has sought to improve and simplify recognition procedures. Recognition of non-formal learning is also a declared EU strategy for enhancing skills and qualifications in the European labour market. The existence of a profit-based private education industry complicates the situation still further, since it has developed alternative approaches such as signature tracks and badges, although it is not yet officially authorised to award credits. It will be interesting to see how the *ECTS Users' Guide*, which is currently under revision, responds to these issues.

5.2.7 Collection of data on MOOCs

Around two-thirds of the institutions with MOOCs gather data on these courses, and all of them expressed interest in enhancing their data collection procedures.

Figure 45 - Q35: Do you collect and analyse data on MOOCs participants?



It is sometimes claimed that, as an extensive source of data from their vast range of learners, MOOCs provide for more thorough analysis and the eventual enhancement of both learning and teaching.

Around two thirds of the institutions with MOOCs actually collect data on these courses, but all 29 respondent institutions reported that they are interested in doing so or in improving their data collection procedures. One institution commented: “we do not have a reliable way to identify how many students of our institution were registered. We don't know where 52% of the students registered in our MOOCs are from.”

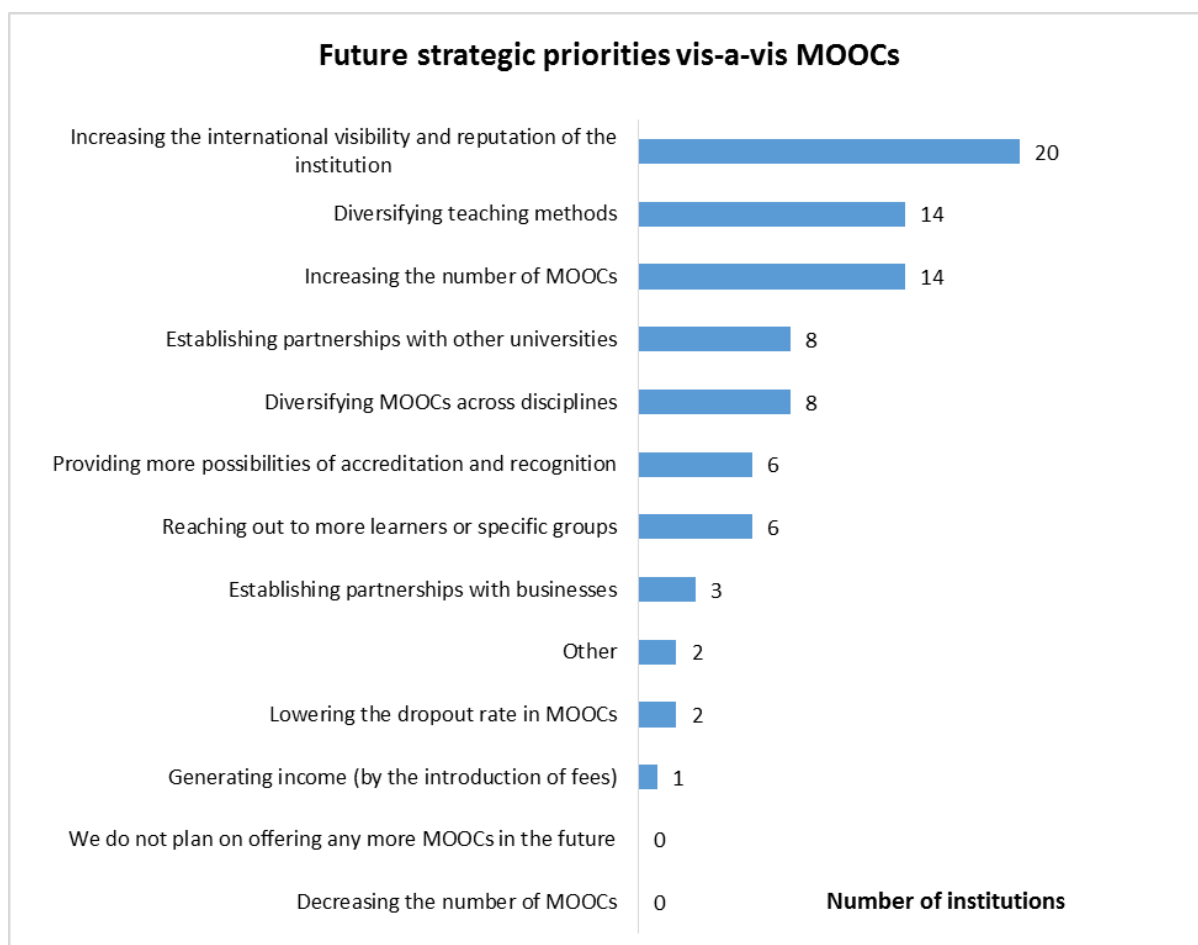
5.2.8 Technical universities as a possible special case

As mentioned earlier, technical universities in our sample appear to be exceptionally interested in MOOCs, and account for a high proportion of the small group of institutions that actually offer them. The geographical distribution of these institutions (covering Denmark, Germany, Ireland, the Netherlands, Norway, Spain and Switzerland) is interesting, as is their approach to MOOCs. Most of them offer one or two English-language MOOCs and plan moderately to increase their provision by a further one to three new courses. More often than other institutions, they seem to integrate MOOCs into blended learning and on-campus learning programmes. In addition, most technical universities collect data on MOOCs, while so far only few of the comprehensive universities, or the specialised or applied sciences institutions do so. However, as our survey sample is small and self-selected, judgement on this matter should be reserved pending a more extensive investigation.

5.2.9 Strategic priorities for the future

Institutions currently offering MOOCs plan also to develop them in the future, partly in order to raise their international profile, but partly also to improve their teaching methods and embark on partnerships with other institutions.

Figure 46 - Q39: What are the strategic priorities of your institution concerning MOOCs for the future?



Future plans for MOOCs at institutions do not differ significantly from the goals of MOOCs already in existence. For 20 institutions, raising their international profile is a strategic priority while 14 are concerned to diversify their teaching methods. Fewer institutions cite other possible priorities, such as diversifying MOOCs across disciplines, recognition and accreditation, targeting specific learner groups, and establishing partnerships with other institutions or the business community. Interest in partnerships is consistent with the conclusion in section 5 of this report that there is growing interest in the use of e-learning for collaborative purposes.

The generation of income from MOOC enrolment fees and lowering the dropout rate are viewed as priorities by only one or two institutions. But none of them states that it intends to stop the development of MOOCs, and around half of them (14) report that they wish to increase the number of MOOCs they offer.

As often occurs in processes involving change and innovation, the initial phase in the development of MOOCs has been about action, mobilisation and involvement. It is only in the next phase that institutions seem to be more concerned with diversifying the development of these courses and ensuring that they yield benefits such as more flexible and effective learning methods, recognition of learning and strategic partnerships with other institutions.

6 Conclusion: the urgency of bridging policy and practice in e-learning in Europe

It is striking that 249 institutions of different types and with differing goals from 38 different countries and systems share broadly the same motives for expanding e-learning. These motives are the more effective use of classroom time and greater flexibility in learning provision, regardless of whether learners are on or off campus, recent school leavers or adult learners.

This finding – along with the shared conviction that e-learning can in many ways help to stimulate and inform institutional discussions and reform – should transfer e-learning from the realm of specialist discussion into a wider European debate on learning and teaching methods in higher education, in which leaders, practitioners and researchers at institutions could all take part.

The survey results suggest that this is on the way: institutions have developed strategies for e-learning, or intend to do so; there is a significant trend toward institution-wide structures for the coordination and support of e-learning; these are often being mainstreamed into the regular teaching provision; e-learning is included in internal quality assurance processes in the same way as regular teaching is and a number of quality assurance agencies are reported to have taken up the issue of e-learning.

What do the survey results tell us about learning innovation? On the one hand, all institutions are engaged in e-learning: the majority provide regular online learning and more than half are principally ready to embrace MOOCs. These developments could be seen as innovation. On the other hand, however, relatively few institutions have mainstreamed online learning or implemented MOOCs;

blended learning may just be synonymous with conventional classroom learning, sprinkled with a bit of ICT. Thus, the survey results do not allow any firm conclusion regarding learning innovation: to a large extent, it is a matter of interpretation.

While there are various good reasons for advancing the digitalisation of learning and teaching, this is certainly not the one and only route to innovation and quality enhancement. The survey results also remind us that the changes taking place are not only of a technical nature but also social and intellectual.

The survey responses regarding the general and educational merits of e-learning are rather balanced and cautious. While its benefits are not firmly disputed, there are clear reminders that e-learning is not a panacea but an approach requiring resources, staff engagement and time for satisfactory development. Online learning and MOOCs are not contemporary versions of the Nuremberg funnel, but have to be included in strategies for e-learning and linked to the discussion on enhancing higher education teaching methods and contents.

Interestingly, while institutions participating in the survey agree largely on the actual motives for e-learning (e.g., more effective use of teaching time and a flexible learning offer to traditional students and lifelong learners), other central assets of e-learning, namely its capacity to overcome spatial boundaries, to enable collaboration, and to benefit the broad range of institutional missions, seem to remain largely untapped. Apart from the accrued international visibility and the potential for attracting international students via MOOCs, there was little to no reference to broader educational goals, such as the international classrooms and internationalisation at home. This is striking, given the high priority given to internationalisation by most institutions. Likewise, the link to research (e.g. through access to digital labs or crowd research) is not a priority. While all these opportunities are certainly explored and tested, they do not seem to be used broadly yet.

Why not? Are they too complicated from the point of view of organisation and communication? These aspects are already challenging in conventional inter-institutional cooperation, and might be amplified in e-cooperation. Are the enabling technology infrastructures not sufficiently robust and reliable? Do institutional and national rules and regulations, including the efforts of quality assurance to protect students, limit the rapid adaptation of more innovative teaching approaches? This is an important question because it is one of the motives for institutions to take up MOOCs and experiment with teaching methods. Or has e-learning not yet been sufficiently incentivised both within institutions, at national level and in joint European projects?

Theoretically, integrating e-learning within the ongoing development of the European Higher Education Area could underpin the Bologna Process goals of convergence in higher education, more fruitful exchanges and collaboration between institutions, and an enhanced global dimension, with Europe more visible in, and interactive with, the world at large. The fact that some institutions have started recognising MOOC learning by awarding ECTS is a very subtle hint of what mainstreaming could mean beyond introducing e-learning in every department. It should also encourage policy makers in the Bologna Area to explore how to facilitate the development of e-learning.

The survey results point to the difficulty of providing the right frameworks at system level: national strategies for digitalisation and e-learning are usually horizontal; that is, they are not specific to

higher education and in some countries not even to education. Despite the recent European Communication on Opening up Education, and several initiatives by private and national foundations, how national ministries can best support digital innovation remains an open question. So far, most countries in Europe leave it to the universities to respond to MOOCs. This may reflect a lesson learned from attempts a decade ago to develop centralised structures for higher education e-learning, which achieved disappointing results although they did have an impact on institutions. Innovation rarely happens through large national projects that prescribe the use of specific technologies. A national e-learning strategy 2014 must consider – among other issues – how to connect the digital devices that academic staff and students already use. However, the fact that e-learning requires investment but does not guarantee immediate returns is certainly another reason for caution, particularly in times of economic and financial crisis.

If no additional funding is available, at the very least, flexible use of existing funding is necessary, as well as an adjustment of the regulatory frameworks that support the activities of university staff, their students and their institutional partners – be they next door or on the other side of the world. As in other areas where strategic institutional and national developments are required, ministries and university associations and networks should facilitate dialogue and exchange among institutions and with policy makers. And clearly, there should be a European dimension to this. If European countries and institutions have been able to learn from one another in other areas of higher education and to agree on joint policies, protocols and instruments, there must be a path for developing a European dimension in e-learning as well.

7 ANNEX

A1 Participation in the survey by country

Country	Number of institutions	% in the sample
Andorra	1	0.4
Austria	7	2.8
Belgium	6	2.4
Bosnia and Herzegovina	1	0.4
Bulgaria	2	0.8
Croatia	2	0.8
Cyprus	3	1.2
Czech Republic	3	1.2
Denmark	5	2
Finland	5	2
France	9	3.6
FYR Macedonia	1	0.4
Georgia	1	0.4
Germany	16	6.4
Greece	4	1.6
Hungary	9	3.6
Iceland	1	0.4
Ireland	4	1.6
Italy	20	8
Latvia	2	0.8
Lithuania	4	1.6
Malta	1	0.4
Netherlands	5	2
Norway	7	2.8
Poland	10	4
Portugal	8	3.2
Romania	8	3.2
Russia	5	2
Serbia	2	0.8
Slovakia	9	3.6
Slovenia	2	0.8
Spain	24	9.6
Sweden	15	6
Switzerland	10	4
Turkey	12	4.8
Ukraine	5	2
United Kingdom	20	8
Total number of universities		249
Total number of countries		37

A2 Participating institutions

Note: all except eight institutions marked with an asterisk (*) were EUA members in December 2013 (at the time of the survey).

Country	University
Andorra	University of Andorra
Austria	Alpen-Adria-University of Klagenfurt
	FH Joanneum University of Applied Sciences
	Graz University of Technology
	Medical University of Vienna
	University of Applied Sciences Technikum Wien
	University of Leoben
	University of Natural Resources and Applied Life Sciences
Belgium	Institute of Tropical Medicine*
	Ghent University
	KU Leuven
	Université catholique de Louvain
	Université libre de Bruxelles (ULB)
Bosnia and Herzegovina	University of Antwerp
	University of Sarajevo
Bulgaria	Medical University Plovdiv
	Technical University of Varna
Croatia	University of Rijeka
	University of Zagreb
Cyprus	University of Cyprus
	University of Nicosia
Czech Republic	Czech University of Life Sciences Prague
	Masaryk University
	Silesian University in Opava
Denmark	Aalborg University
	Copenhagen Business School
	Technical University of Denmark
	University of Copenhagen
	University of Southern Denmark
Finland	Lappeenranta University of Technology
	Tampere University of Technology
	University of Eastern Finland
	University of Helsinki
	University of Jyväskylä
	Jean Moulin University Lyon 3
	Joseph Fourier University
	Lille 2 University of Health and Law

France	University Lille 3 Charles-de-Gaulle
	University of Haute-Alsace
	University of Lorraine
	University of Pau and Pays de l'Adour
	University Pantheon-Assas
	University Paris 8 Vincennes-Saint Denis
FYR Macedonia	South East European University
Georgia	Ilia State University
Germany	Carl von Ossietzky University of Oldenburg
	Cologne University of Applied Sciences
	Deggendorf University of Applied Sciences
	Dresden University of Technology
	Hamburg University of Applied Sciences
	Hochschule Konstanz University of Applied Sciences
	RWTH Aachen University
	Saarland University of Applied Sciences
	University of Bamberg
	University of Bremen
	University of Duisburg-Essen
	University of Erlangen Nuremberg
Greece	University of Giessen
	University of Goettingen
	University of Hagen
	University of Hannover
Greece	Agricultural University of Athens
	Aristotle University of Thessaloniki
	Democritus University of Thrace
	University of Thessaly
Hungary	Budapest University of Technology & Economics
	Corvinus University of Budapest
	National University of Public Service (NUPS)
	Óbuda University
	Semmelweis University
	Széchenyi István University
	Szent István University
	University of Pécs
Iceland	University of Szeged
Iceland	University of Iceland
Ireland	Dublin Institute of Technology
	NUI Galway
	University College Cork
	University of Limerick
	Ca' Foscari University of Venice
	Free University of Bozen
	IULM University of Languages and Communication
	Milan Technical University
	Polytechnic University of Turin

Italy	Sapienza University of Rome
	The Catholic University of the Sacred Heart
	The Tuscia University
	University of Bergamo
	University of Bologna
	University of Genoa
	University of Macerata
	University of Molise
	University of Naples-L'orientale
	University of Padua
	University of Reggio Calabria
	University of Salento
	University of Siena
	University of Trieste
	University of Urbino
Latvia	Riga Stradins University
	Riga Technical University
Lithuania	Lithuanian University of Educational Sciences
	Siauliai University
	Vilnius Gediminas Technical University
	Vilnius University
Malta	University of Malta
Netherlands	Delft University of Technology
	Eindhoven University of Technology
	Free University Amsterdam
	University of Maastricht
	Wageningen University
Norway	Norwegian University of Life Sciences
	Norwegian University of Science & Technology
	University of Bergen
	University of Nordland
	University of Oslo
	University of Stavanger
Poland	University of Tromsø
	Koszalin University of Technology
	Poznan University of Economics
	Poznan University of Technology
	Technical University of Lodz
	University of Lodz
	University of Warsaw
	Warsaw University of Life Sciences
	Wroclaw University of Economics
	Wroclaw University of Environmental and Life Sciences
	Wroclaw University of Technology
	Autonomous University of Lisbon
	ISCTE – Lisbon University Institute
	Universidade Aberta (Open University Portugal)

Portugal	University of Aveiro
	University of Beira Interior (UBI)
	University of Porto
	University of the Algarve
	University of Trás-os-Montes and Alto Douro
Romania	Academy of Economic Studies of Bucharest
	Agora University of Oradea*
	Babes-Bolyai University
	Lucian Blaga University of Sibiu
	Spiru Haret University
	Târgu-Mures University of Medicine & Pharmacy
	University of Agricultural Sciences and Veterinary Medicine
Russia	University of Craiova
	Moscow State Linguistic University
	National Research University Higher School of Economics
	Peoples' Friendship University of Russia
	Southern Federal University
Serbia	St. Petersburg State University
	University of Belgrade
Slovakia	University of Novi Sad
	Academy of the Police Force*
	Comenius University in Bratislava
	Constantine the Philosopher University
	Dubnica Institute of Technology in Dubnica nad Váhom*
	Pavol Jozef Šafárik University in Košice
	School of Management in Trenčín*
	Technical University of Kosice
	University of Economics in Bratislava
Slovenia	University of Presov
	University of Maribor
Spain	University of Nova Gorica
	Alcalá de Henares University
	Cádiz University
	Camilo José Cela University*
	Cantabria University
	Carlos III de Madrid University
	Catholic University of Valencia
	CEU Cardenal Herrera University
	Deusto University
	Extremadura University
	International University of Catalonia
	La Laguna University
	Lleida University
	Madrid Open University
	Murcia University
	National University for Distance Education (UNED)
	Oviedo University

	Polytechnical University of Catalunya Polytechnical University of Valencia Pompeu Fabra University Rovira i Virgili University Seville University University of Alicante University of Valencia University of Vic
Sweden	Chalmers University of Technology Karolinska Institute Linköping University Linnaeus University Luleå University of Technology Lund University Mälardalen University Mid Sweden University Södertörn University Stockholm School of Economics Stockholm University Umeå University University of Borås University of Gothenburg University West
Switzerland	ETH Zürich Federal Polytechnic School of Lausanne Graduate Institute of International and Development Studies University of Applied Sciences Western Switzerland University of Bern University of Geneva University of Lausanne University of Lucerne University of Lugano University of Zurich
Turkey	Bahcesehir University Bilkent University Duzce University Inönü University Isik University Istanbul Bilgi University Istanbul University Marmara University Namik Kemal University Okan University Ondokuz Mayıs University Selcuk University
	Borys Grinchenko Kyiv University National Pedagogical Dragomanov University

Ukraine	Odessa National Polytechnic University
	Ternopil Ivan Puluj National Technical University
	V.N. Karazin Kharkiv National University
United Kingdom	Aston University
	Bournemouth University
	Cardiff Metropolitan University
	Glasgow School of Art*
	Imperial College London
	Institute of Education
	Napier University
	The Open University
	University College London
	University of Exeter
	University of Greenwich
	University of Hull
	University of Nottingham
	University of Oxford
	University of Plymouth
	University of Surrey
	University of Wales Swansea
	University of West Scotland
	University of Westminster
	University of York*
Other	Eastern Mediterranean University

A3 Evidence of national strategies for e-learning

The following information has been provided by the respondents on national strategies for e-learning (question 3) and completed with further desk research.

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
Andorra	No		
Austria	General strategy for e-learning in education	<ul style="list-style-type: none"> efit21 – Digital Agenda for Education, Arts and Culture is focused on the integration and use of new ICT in Austrian education, arts and culture. One of the major goals of the strategy is to enhance the quality of teaching and learning. At present, there seems to be no focus on higher education, with the exception of measures aimed at future (school) teachers. Further information: www.efit21.at/en/ 	<ul style="list-style-type: none"> Grants offered by the Bundesministerium für Wissenschaft und Forschung (Ministry of Education and Science) to support institutional projects to develop an e-learning strategy (2005-2010). For a brief overview of e-learning initiatives, see www.e-teaching.org/projekt/politik/politiken/Oesterreich/ and www.bildung.at/home/db-services/
Belgium (Flemish Community)	General strategy for e-learning in education	<ul style="list-style-type: none"> E-learning is generally part of the Flemish 2020 Strategy. A dedicated action plan on distance learning was drawn up for the further development of distance and blended learning within vocational training programmes: www.vlaandereninactie.be/sites/default/files/flemish-reform-programme2012_lr_0.pdf 	
Belgium (French Community)	No – under discussion	<ul style="list-style-type: none"> Since 2007, e-learning issues have been dealt with by the Wallonia Telecommunications Agency (AWT), which coordinates e-learning initiatives in the Walloon Region and French Community. 	<ul style="list-style-type: none"> E-learning initiatives in Wallonia are presented in the report of AWT (2012): www.awt.be/contenu/tel/edu/2012_Etat_des_lieux_e-learning_RW_CF.pdf and www.awt.be/web/edu/index.aspx?page=edu,fr,cou,000,000
Bosnia and Herzegovina	No – under discussion		
Bulgaria	Yes – as part of the higher education law	<ul style="list-style-type: none"> Provisions related to e-learning are defined in the national law for higher education and by the National Commission for Accreditation. 	
Croatia	No, but it is under discussion and there are national-level	<ul style="list-style-type: none"> A “National Strategy for Science and Education” currently undergoing public debate, supports e-learning and development of ICT infrastructure in higher education and lifelong learning, through a number of measures (development of expert systems and digital content for teaching and 	

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
	support measures	<p>learning, organisation of open educational content delivery, creation and expansion of ICT infrastructure, integration of existing databases in higher education, development and implementation of an open access system for literature and educational content).</p> <ul style="list-style-type: none"> • The Law on Science and Higher Education (ratified in 2013) permits online study programmes. • The National Council for Science, Higher Education and Technology adopted a document in 2013 which regulates online study programmes and specifies the criteria for their evaluation. 	
Cyprus	No	<ul style="list-style-type: none"> • E-learning has been included as a priority in the Cyprus National Plans of 2004-2006 and 2007-2013, but the general approach is rather cautious: e-learning is not incorporated in the overall education reform or strategic plans. See http://bookshop.europa.eu/en/the-development-of-eservices-in-an-enlarged-eu-pbLFNI23367/ 	
Czech Republic	No, but there are national-level support measures		<ul style="list-style-type: none"> • A brief overview of past e-learning initiatives can be found in the JRC report "E-learning in the Czech Republic" (2008): http://bookshop.europa.eu/en/the-development-of-eservices-in-an-enlarged-eu-pbLFNA23367/
Denmark	Yes	<ul style="list-style-type: none"> • In 2008, a national strategy for ICT-supported learning was formulated, with universities as one of the target groups: (http://get.dav.itst.rackhosting.com/Publikationer/National_strategi_for_IKT-stoettet_laering/). • Its goal is to enhance the use of e-learning for both full-time studies and continuing education. E-learning should be used to achieve both pedagogical and strategic goals and is seen as a potential means of creating differentiated learning and teaching and strengthening internationalisation. Funds for projects were allocated. • In August 2011, the Danish government formulated the "e-Government strategy 2011-2015 – the digital path to future welfare". Focus Area 7 of this 	

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
		<p>strategy is “digital universities: milestones for 2015 – students attend universities that have embraced the digital age”. Universities and students communicate online, including study application, submission of assignments and administrative issues. Universities are to share IT best practices to improve efficiency:</p> <p>www.digst.dk/Home/Digitaliseringsstrategi/~media/Files/Digitaliseringsstrategi/Tilgaengeligt_engelsk_strategi.pdf</p>	
Finland	Yes – as part of education policy	<ul style="list-style-type: none"> General provisions on the use of ICT in education are contained in the country’s five-year Development Plans for Research and Education (2011-2016) managed by the Ministry of Education: www.minedu.fi/export/sites/default/OPM/Julkaisut/2012/liitteet/okm03.pdf Specific e-learning provisions in the context of internationalisation are reflected in the Strategy for the Internationalisation of Higher Education Institutions in Finland 2009-2015: www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm23.pdf?lang=en 	<ul style="list-style-type: none"> For further information (in Finnish), see: www.minedu.fi/export/sites/default/OPM/Koulutus/artikkelit/koulutuksen_ja_tutkimuksen_tietoyhteiskunta/verkko-opetuksen_sopimusmallit/liitteet/Loppuraportti_Koulutus2020_okmtr_2010_12.pdf www.minedu.fi/export/sites/default/OPM/Koulutus/artikkelit/koulutuksen_ja_tutkimuksen_tietoyhteiskunta/verkko-opetuksen_sopimusmallit/liitteet/Loppuraportti_Koulutus2020_okmtr_2010_12.pdf
France	Yes	<ul style="list-style-type: none"> Specific provisions for e-learning have been in place in France since the early 2000s, with the launch of initiatives concerned with UNR (<i>université numérique de région</i>) in 2002 and UNT (<i>université numérique thématique</i>) in 2004. The MINES unit (<i>mission nationale pour le numérique dans l'enseignement supérieur</i>) in the Ministry of Higher Education and Research is responsible for e-learning: www.enseignementsup-recherche.gouv.fr/cid24149/dgesip.html In 2013, the French government adopted the national digital strategy <i>France Université Numérique</i>. The strategy consists of 18 actions: www.france-universite-numerique.fr/18-actions.html As part of the same strategy, a national platform for MOOCs has been launched. 	<ul style="list-style-type: none"> For further information about various initiatives see: www.france-universite-numerique.fr/ressources-et-initiatives.html
FYR Macedonia	No		

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
Georgia	No – under discussion		
Germany	No national strategy, but at least some <i>Länder</i> (regions) have strategies. Support measures also exist	<ul style="list-style-type: none"> Germany has no national strategy for e-learning, given the specifics of the federal system, but there are strategies at the regional level, e.g. in Bavaria. 	<ul style="list-style-type: none"> The overview of regional e-learning activities can be consulted at www.e-teaching.org/news/kontaktadressen/initiativen/Initiativen_Laender/index.html
Greece	No, but there are support measures		
Hungary	No	<ul style="list-style-type: none"> In Hungary there is no national e-learning strategy, although different ministry strategies encompass important aspects of e-learning. The Hungarian Accreditation Committee defines the requirements for distance learning training materials. In particular, the curriculum packages should be consistent with the subject descriptions of training. The content, structure and language of the curriculum are suitable for individual knowledge learning. The learning guide for students should include a learning strategy (separate modules) and self-test for easier individual learning. 	<ul style="list-style-type: none"> For further information, see (for example) “The Development of eServices in an Enlarged EU: eLearning in Hungary” (2008). Joint Research Centre.
Iceland	No		
Ireland	No, but there are national-level support measures		<ul style="list-style-type: none"> In Ireland, a National Forum for the Enhancement of Teaching and Learning was established in 2012 to work structurally on improving teaching and learning. The Forum uses different instruments for this purpose, such as academic professional development tools and awards, a national digital platform and e-learning capacity development, and grants and fellowships. Further information: www.heai.ie/files/files/DES_Higher_Ed_Main_Report.pdf and http://ec.europa.eu/education/library/reports/modernisation_en.pdf
Italy	No, but there are national-	<ul style="list-style-type: none"> In 2012, the government launched several initiatives aimed at encouraging universities to adopt administrative 	<ul style="list-style-type: none"> E-learning is included in the three-year strategic planning document of the University Ministry for 2013-2015,

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
	level support measures	<p>procedures related to their digitisation (Digital University initiative). Further information: http://hubmiur.pubblica.istruzione.it/web/universita/universita-digitale and http://hubmiur.pubblica.istruzione.it/al fresco/d/d/workspace/SpacesStore/a6a7973b-0136-48dd-9721-1699f7ea6bcf/Adozione_Linee_guida_u_niversita_digitale.pdf</p> <ul style="list-style-type: none"> “Distance e-learning” is formally recognised through the institution of some universities funded from the Ministry of Universities and Research. 	<p>with some modest targeted funding.</p> <ul style="list-style-type: none"> The <i>Generazione Web</i> project of Lombardy region, the national project for IWB usage in primary and secondary school, and all national training courses for teachers are offered by e-learning technology. Many schools use e-learning platforms to support their curricula.
Latvia	No, but the discussion has started, and there are national-level support measures		<ul style="list-style-type: none"> The “ICT for Education Quality” Latvian government programme is one of the related support measures.
Lithuania	No	<ul style="list-style-type: none"> There is currently no e-learning strategy in Lithuania, which would define and promote e-learning services. General provisions with regard to the use of ICT in education are included in the National General Strategy (2006). See the UNESCO report “Open Educational Resources in Lithuania” (2011) for further details: http://iite.unesco.org/pics/publications/en/files/3214687.pdf 	
Malta	No, but there are national-level support measures		
Netherlands	No, but there are national-level support measures	<ul style="list-style-type: none"> E-learning is broadly mentioned in the context of the Strategic Agenda for Higher Education, Research and Science in the Netherlands (Quality in Diversity). Further information: www.government.nl/government/documents-and-publications/reports/2012/08/30/quality-in-diversity.html 	<ul style="list-style-type: none"> The National Action Plan E-learning 2008 (NAP) was implemented in the Netherlands with the aim of improving access to higher education, the performance of students and the quality of higher education. Further information: http://its.ruhosting.nl/publicaties/pdf/r1779.pdf Various universities of applied sciences (HAN, Fontys, Avans, the University of Applied Sciences Zuyd, the Utrecht University of Applied Sciences and Rotterdam University of Applied Sciences) have joined forces in the framework of the National Action Plan

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
			for e-learning, to develop a generic competence index for professional higher education. Further information: www.government.nl/government/documents-and-publications/reports/2012/08/30/quality-in-diversity.html
Norway	No, but there are national-level support measures		<ul style="list-style-type: none"> In Norway, there is a national collaborative initiative among higher education institutions, which aims to share practices and use joint resources to negotiate access to relevant tools and solutions: www.regjeringen.no/nb/dep/kd/tema/livslang-laring.html?id=592615
Northern Cyprus	Yes		
Poland	No, but there are national-level support measures	<ul style="list-style-type: none"> E-learning is listed as a type of education in the strategy for development of higher education in Poland 2020. E-learning is also mentioned in the Higher Education Act and its implementing regulations. 	<ul style="list-style-type: none"> The Ministry of National Education in Poland has recently launched the national Digital School project. The Polish Ministry of Higher Education and Science promotes and strategically supports the projects implemented by universities in the field of distance learning through targeted competitions.
Portugal	No, but there are national-level support measures	<ul style="list-style-type: none"> Distance learning is envisaged under the Framework Law of the Education System (Articles 16 and 21 of Law 46/1986 of 14 October) with special reference to the Universidade Aberta (Open University). Law 49/2005 of 30 August, which amended Law 46/1986, stated that legislation would be passed specifically with regard to distance learning within a year. A similar provision was made under the Legal Framework of Higher Education Institutions (Law 62/2007 of 10 September). In the absence of such specific legislation, the provision of e-learning course units, modules and/or degrees has been left to the discretion of each higher education institution, and there are no specific QA requirements for e-learning yet. 	<ul style="list-style-type: none"> The government has recently placed great emphasis on mobilising the country to take part fully in the information society. In education and training, this has led to several programmes and actions that have contributed to the widespread use of ICT at all educational levels. The Knowledge Agency Society (UMIC) and the Foundation for National Scientific Computing (FCCN), both of which are now part of the Foundation for Science and Technology (FCT), have been instrumental in this process.
Romania	No, but there are national-level support measures	<ul style="list-style-type: none"> E-learning is mentioned in the Romanian Strategy E-Romania 2010-2013: www.monitoruljuridic.ro/act/strategia-nationala-din-9-martie-2010-e-romania-2010-2013-emitent-guvernul-publicat-n-monitorul-oficial-nr-276-din-28-aprilie-118294.html 	<ul style="list-style-type: none"> Various conferences and working groups were supported by the Romanian government, such as the ICVL (International Conference on Virtual Learning): http://c3.icvl.eu/ or the CNIV (National Conference on Virtual Learning): http://cniv.ro/; and e-learning software was developed for universities, such as ROSLIMS (Romanian Simle Linux for Medical

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
			Students), the first Romanian Linux Educational Platform. <ul style="list-style-type: none"> A number of EU-funded projects were implemented in order to improve teaching activities, in classes with (around 50%) face-to-face learning and (around 50%) online learning.
Russia	No	<ul style="list-style-type: none"> E-learning is authorised by the Law on education 273 (2012), Article 12: educational programmes delivered through e-learning technologies. 	
Serbia	No, but discussions have started		
Slovakia	No, but discussions have started	<ul style="list-style-type: none"> No government policy document which would directly deal with e-learning issues has yet been adopted in Slovakia. Two major related policy documents are the "Government Programme Declaration" and "National Information Society Policy", which define government policy on e-learning. Further information: http://asemlllhub.org/fileadmin/www.asem.au.dk/publications/eASEM_book_2013_CONTENT_eLearning_for_LLL_in_Ubiquitous_Society.pdf 	
Slovenia	Yes	<ul style="list-style-type: none"> The national e-learning strategy was developed and implemented by the Ministry of Higher Education, Science and Technology in 2006-2010: www.arhiv.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/pdf/informacijska_druzba/61405-EN_Strategija_razvoja_informacijske_druzbe_v_RS_si2010.pdf Better integration of distance learning in the Slovenian higher education system is one of the goals of the National Higher Education Programme (2010-2020). Further information: www.arhiv.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/pdf/odnosi_z_javnostmi/12.4.11_NPVS_ANG_nova_v_erzija.pdf 	
Spain	No, but there are national-level support measures	<ul style="list-style-type: none"> The Bill on the Improvement of the Quality of Education was passed in Spain in May 2013. The new legislation, which will come into force in the 2014/2015 academic year, amends the 2006 Education Act and establishes that ICT is one of the 	<ul style="list-style-type: none"> "The Bologna Process has contributed to updating and improving teaching methods by using emerging technologies. In this context, universities have launched teaching innovation projects."

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
		<p>areas playing a major role in the transformation of the education system. The Act highlights the need to review the concept of the classroom and learning environment from the broad perspective of the educational purpose of new technologies. A number of actions (e.g. the launch of the National Interoperability Scheme) are also planned. ICT has also been accorded high priority for employment in some of the actions related to education and training in the 2013-2016 Strategy for Entrepreneurship and Youth Employment. For further information, see the article about Spain in Eurydice:</p> <p>https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Spain:Enhancing_Creativity_and_Innovation,_Including_Entrepreneurship_at_all_Levels_of_Education_and_Training.</p> <ul style="list-style-type: none"> The 2012-2014 Spanish Employment Strategy refers to two specific targets linked to education and training. They are, first, to ensure that 20% of training provision is online and, secondly, that 30% of this type of training can be accredited. See Eurydice for further information: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Spain:Education_in_the_Europe_2020_Strategy 	
Sweden	No, but discussions have started	<ul style="list-style-type: none"> Higher education authorities do not have much scope for special action because institutions have their own responsibilities. The government considers that implementation and development of e-learning is a responsibility of the municipalities and public education organisations. The government strategy for ICT and the new digital Agenda for Sweden (2011) do not refer explicitly to e-learning. See http://ballad-livinglabs.eu/files/Priority_application_area_education_SWE.pdf 	
Switzerland	No, but there are regional (canton-level) strategies	<ul style="list-style-type: none"> A national project "Swiss Virtual Campus" www.virtualcampus.ch/ was implemented in the years 2000-2007. At present, the development of e-learning as an inherent component of teaching is the sole responsibility of 	<ul style="list-style-type: none"> Support initiatives include the "SWITCH AAA / Information Scientifique" Programme and "E-Teaching und E-Learning an Fachhochschulen, Rektorenkonferenz der Fachhochschulen der Schweiz"

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
		higher education institutions, and its funding costs are included in their budgets. Under the national SUK-Programme 2013-2016 P-2 "Wissenschaftliche Information: Zugang, Verarbeitung und Speicherung", the national working group SWITCH ETWG (www.eduhub.ch/community/etwg-educational-technology-working-group/) has agreed on an e-learning strategy paper, which is not yet publicly available.	KFH"
Turkey	Yes	<ul style="list-style-type: none"> In Turkey, distance learning strategies exist at secondary education and higher education levels. All strategies and regulations are defined by the Turkish Higher Education Council (YOK), which has a special committee overseeing the establishment and implementation of higher education e-learning and e-teaching programmes. In 1992, the regulation on distance education was published by the Institute of Higher Education. Distance learning centres were established in several universities in 1996. In 2001, the first distance education courses/programmes were launched. In 2012, the national distance education policy in higher education was defined, with an update in 2013. 	<ul style="list-style-type: none"> Fatih project - Higher Education Council - Ministry of Education: http://ide.yok.gov.tr/index.cfm;www.yok.gov.tr/documents/10279/34559/uzaktan ogretim esas usul.pdf/b8177cd6-5b3c-407a-9978-f8965419b117
Ukraine	No	<ul style="list-style-type: none"> There is a directive of the Ukraine Ministry of Higher Education on the Implementation of e-learning in the education process of higher education institutions: http://mon.gov.ua/ua/activity/education/60/ 	
United Kingdom	It depends on the part of the UK concerned	<ul style="list-style-type: none"> There are a number of policy and strategy documents pertaining to e-learning, some directly and others indirectly. Examples include www.hefce.ac.uk/pubs/year/2009/200912/#d.en.63806 and www.education.gov.uk/consultations/downloadableDocs/towards%20a%20unified%20e-learning%20strategy.pdf Higher Education Funding Council for England (HEFCE) revised strategy for e-learning 2009-2012: www.hefce.ac.uk/whatwedo/it/enh/techelearning/ HEFCE has led national strategy in e- 	

Country	National strategy	National strategies Further information, references, remarks	National initiatives Further information, references, remarks
		<p>learning and is funding a change programme in this area called “Changing the Learning Landscape”: www.hefce.ac.uk/whatwedo/lt/enh/telearning/</p> <p>Technology-enhanced Learning (TEL) is referred to in www.hefcw.ac.uk/policy_areas/learning_and_teaching/ELTT.aspx</p> <p>Enhancing learning and teaching through the use of technology: a revised approach to HEFCE strategy for e-learning. March 2009: www.hefce.ac.uk/pubs/year/2009/200912/.</p> <p>The Online Learning Task Force Report to HEFCE, “Collaborate To Compete” (January 2011): www.hefce.ac.uk/pubs/year/2011/201101/</p> <ul style="list-style-type: none"> Higher Education Funding Council for England (2009). Enhancing learning and teaching through the use of technology: a revised approach to HEFCE’s strategy for e-learning. 	

A4 List of tables and figures

Tables

Table 1 - Respondents to the e-learning survey by institution.....	16
Table 2 - Respondents to the e-learning survey by size of institution.....	16
Table 3 - Q3: In your country, is there a policy or strategy for enhancing e-learning that specifically addresses higher education?	21
Table 4 - Q7: Are there specific disciplines where the use of e-learning is particularly prominent? ...	33
Table 5 - Breakdown by country of institutions with MOOCs	59

Figures

Figure 1 - Number of institutional responses by country	15
Figure 2 - Q3: In your country, is there a policy or strategy for enhancing e-learning that specifically addresses higher education?	20
Figure 3 - Q4: Does your institution have a strategy or policy regarding e-learning?	22
Figure 4 - Q4: Does your institution have a strategy or policy regarding e-learning?	23
Figure 5 - Q4: Does your institution have a strategy or policy regarding e-learning?	23
Figure 6 - Q5: Does your institution use e-learning?	25
Figure 7 - Q6: Does your institution offer any of the following?	26
Figure 8 - Q6: Does your institution offer any of the following?	26
Figure 9 - Q21: Is there any group that your institution targets specifically through an online offer?	28
Figure 10 - Q21: Is there any group that your institution targets specifically through an online offer?	29
Figure 11 - Q20: What do you think are the main motivations for your students to sign up for online learning (learning processes that take place via the Internet)?	29
Figure 12 - Q10: What is the estimated percentage of students at your institution involved in e-learning?	30
Figure 13 - Impact of institutional strategies on student involvement in e-learning (Q10 x Q5).....	31
Figure 14 - Q10: What is the estimated percentage of students at your institution involved in e-learning (institutions per country)?	31
Figure 15 - Q10: What is the estimated percentage of students at your institution involved in e-learning (per type of institution)?.....	32
Figure 16 - Q8: Is e-learning used also to provide courses in the following areas?	34
Figure 17- Q15: Does your institution use any of the following types of educational resources?.....	35
Figure 18- Q17: Which of the following information technology (IT)-related systems does your institution use or provide for students?	36
Figure 19 - Q16: Which of the following does your institution provide to support e-learning?(Multiple response)	38
Figure 20 - Q9: How is e-learning managed and organised at your institution?	39
Figure 21- Q9: How is e-learning managed and organised at your institution?	40
Figure 22 - Q9: How is e-learning managed and organised at your institution?	41
Figure 23 - Q13: Has there been any special consideration of e-learning for internal quality assurance procedures at your institution?	42

Figure 24 - Q14: Does your quality assurance (QA) agency have any specific QA requirements for e-learning?	43
Figure 25 - Q11: So far, what has been your institution's experience regarding e-learning? (Multiple response)	44
Figure 26 - Q12: From a pedagogical point of view, what are the main benefits of e-learning at your institution?	45
Figure 27 - Q18: What is the most important objective of your institution regarding the development of e-learning in the future?	47
Figure 28 - Q19: Do you think that e-learning will have a significant impact on collaboration? (Multiple choice)	48
Figure 29 - Q22: Does your institution offer MOOCs?	51
Figure 30 - Q23: Has your institution adopted a position towards MOOCs?	52
Figure 31 - Q23: Has your institution adopted a position towards MOOCs?	52
Figure 32 - Q24: How would you describe the reaction of staff towards MOOCs at your institution?	53
Figure 33 - Q27: What are the main motivations of your institution to introduce MOOCs?	55
Figure 34 - Q25: What are the reasons for not offering MOOCs at your institution? (Multiple response)	56
Figure 35 - Q26: Who initiated the introduction of MOOCs at your institution? (Multiple response)	57
Figure 36 - Q28: Past, present and planned MOOCs offered at 31 institutions	60
Figure 37 - Q29: Is your institution partnering with any of these major MOOC providers?	61
Figure 38 - Q30: In what languages are courses available (current and concluded courses)?	63
Figure 39 - Q30: In what languages are courses available (current and concluded courses)?	63
Figure 40 - Q33: Participation in MOOCs. In the past academic year (2012-2013), how many students signed up for MOOCs that your institution offered?	65
Figure 41 - Q33: Completion of MOOCs. In the past academic year (2012-2013), how many students signed up for MOOCs that your institution offered?	66
Figure 42 - Q36: Does your institution use MOOCs in blended learning and/or to replace on-campus courses?	67
Figure 43 - Q37: Does your institution award credits for its MOOCs?	68
Figure 44 - Q38: Does your institution recognise (with credits) MOOCs delivered by other institutions? (Multiple choice)	68
Figure 45 - Q35: Do you collect and analyse data on MOOCs participants?	69
Figure 46 - Q39: What are the strategic priorities of your institution concerning MOOCs for the future?	70