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Accompanying the documents

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a European strategy for universities

and the Commission Proposal for a Council Recommendation on building bridges for effective European higher education cooperation

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1. Introduction

This Staff Working Document provides analysis and evidence for:

- **The Communication from the Commission on a European Strategy for Universities.**

Which aims to support higher education institutions across Europe in fulfilling and advancing their missions, be a source of recovery and resilience for Europe and become strong promoters of our European way of life, actors of change in the twin green and digital transitions and drivers of Europe's global role and leadership.

- **The proposal for a Council Recommendation on building bridges for effective European higher education cooperation.**

Which aims to enable deeper, sustainable and more effective European institutional transnational cooperation and calls on the Member States and the Commission to set up enabling conditions and new instruments that leverage strength of the higher education sector across Europe.

This Staff Working Document is composed of 10 chapters covering the focus areas identified in targeted consultations with stakeholders and Member States. Consultations and work of the Commission services along these building blocks informed the Communication on a European Strategy for Universities and the Recommendation on building bridges for effective European higher education cooperation. Annex 1 provides a synopsis report of stakeholder consultations.

2. Making deeper transnational cooperation amongst universities in Europe a reality

2.1. The need for more and deeper transnational cooperation

Higher education is an inherent feature of our European way of life. It plays a major role in social, cultural, and economic development,¹ and its benefits extend across society. **Transnational cooperation in higher education supports European Union values, European identity and democracy and strengthens the European project** through high quality and independent academic learning and teaching, research and innovation, and service to society. Democratic societies depend on engaged citizenry, and higher education through transnational collaboration has a key role to play².

Achieving the European Education Area by 2025 and the European Research Area will involve deeper transnational cooperation that builds bridges and empowers higher education institutions (HEIs) to collaborate seamlessly with one another, facilitating learners, graduates, academics, researchers, and professional staff free movement across Europe to study, work and conduct research. Deeper cooperation promotes the quality, diversity, inclusiveness, and attractiveness of European higher education and research and innovation, and it contributes to shaping the green and digital societal transformation and building a sustainable future, while reinforcing the role of Europe in the world.

¹ <https://doi.org/https://doi.org/10.1787/498e9bc7-en>

² https://doi.org/10.1007/978-3-030-67245-4_23

Transforming higher education institutions and the higher education system. Extensive transnational cooperation will expand the ability to gain new perspectives, share ideas, build long-lasting institutional relationships to advance knowledge, increase the quality and relevance of education and research, strengthen links between education, research, and innovation, improve employability and skills, make more effective use of digital technologies and open science, and improve transversal and intercultural skills and understanding.

Building bridges for deeper, perennial, and effective transnational cooperation at institutional level is instrumental to accelerate the transformation of HEIs across all their missions of education, research, innovation, and service to society, and contribute to overcoming European and global challenges. Cooperation brings important spill-over benefits for sustainable communities, innovation ecosystems, businesses, and civil society, with HEIs acting as anchor institutions in their regions, fostering better circulation of knowledge, ensuring human capital development, and more involvement with local communities. Higher education has positive effects on family life, health, citizenship, civic engagement, social justice, and public discourse.

2.2. State of play: what has been done so far

Transnational cooperation has been intrinsic to HEIs in Europe since the foundation of the University of Bologna in 1088³. The Erasmus+ programme honours the name of the humanist, priest, and philosopher Erasmus of Rotterdam (1466-1536) who travelled across Europe encouraging mutual understanding among peoples.

Higher education has been an inherent component of European project since the early days of the European Coal and Steel Community and the establishment of the European University in Florence in 1955. The Sorbonne Declaration (1998) promoted “a Europe of knowledge”⁴, while the Bologna Declaration (1999) aimed to support the free movement of students, faculty and workers across national boundaries emphasising the need to recognise their achievements⁵. Since then, **transnational cooperation has become a salient feature of EU initiatives** and higher education systems – “an example for institutions, nations and regions in other parts of the world”.⁶

In the 1970s Member States envisaged student mobility to foster European citizenship and to improve knowledge of European history and culture. Since 1987 the **Erasmus programme** (the European Community Action Scheme for the Mobility of University Students) has supported the mobility of students and staff and helped building bridges for higher education cooperation. More than 10 million people have benefitted from the wide range of Erasmus opportunities over the past almost 35 years, enhancing their awareness of European values and the advantages of diversity and multiculturalism. **Transnational cooperation in higher education has been an intrinsic part of the Erasmus+ programme** and thousands of projects have become stepping-stones, going beyond individual short-term collaborations towards institutionalised, more perennial cooperation, enabling higher education institutions to build upon their results for their deep transformation.

³ <https://www.routledge.com/The-Origins-of-Higher-Learning-Knowledge-networks-and-the-early-development/Lowe-Yasuhara/p/book/9781138844834> p6

⁴ <http://ehea.info/page-sorbonne-declaration-1998>

⁵ http://ehea.info/Upload/document/ministerial_declarations/1999_Bologna_Declaration_English_553028.pdf

⁶ [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU\(2015\)540370_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf), pp. 27-28.

Under Erasmus+, and complemented by Horizon 2020 for their research dimension, the **European Universities Initiative**⁷ has established inter-institutional alliances as key actors for **systemic, structural, and sustainable cooperation** and **global competitiveness**. Conjoining education and research and innovation to help solve societal challenges, the European Universities alliances are active contributors to their innovation ecosystems. They integrate online and physical resources, courses, knowledge and expertise, data, and infrastructure, boost the capacity and capability of their members. The alliances also offer important lessons on the benefits of transnational cooperation as well as on opportunities for improvement.

The Council Conclusions of 17 May 2021 on the European Universities initiative⁸ invited Member States to jointly work towards closer and more strategic alliances of higher education institutions, to identify and remove any remaining barriers to such closer cooperation, and to promote the use of common and shared infrastructures, equipment, and facilities.

The COVID-19 pandemic has highlighted the importance of deeper cooperation across borders, peoples, and cultures to tackle European and global societal challenges. A survey⁹ conducted by the Commission addressing more than 110 HEIs engaged in the first 17 Erasmus+ European Universities shows that all of them feel that they would have been better prepared to face the COVID-19 pandemic if their European University had already been fully operational. More than 60% of them are already well advanced and consider that being part of a European University has already been helpful in addressing the challenges of COVID-19.

Member States confirmed their support for deepening institutional transnational cooperation and to balance excellence, diversity and inclusion in the February 2021 Council Resolution on a “Strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030)”¹⁰ and in the Council Recommendation on a Pact for Research and Innovation in Europe.¹¹ HEIs anticipate significant benefits through participation to European Universities alliances.¹²

In 2000, the **European Research Area** was launched to create a European single market for research, scientific knowledge and technology, and to encourage cooperation among research institutions in Europe. It then found place in the EU Treaties with the entry into force of the Treaty of Lisbon in 2009. Since their inception 25 years ago, the Marie Skłodowska Curie Actions (MSCA) have had as a primary objective to achieve deeper, more sustainable, and more structural transnational cooperation among participating HEIs. Since their initiation in 2014, MSCA Joint Doctorate programmes are taking this endeavour to a higher level by providing **formal recognition** (in the form of joint, double or multiple doctorates) for transnational cooperation making it more attractive to doctoral candidates, universities, and employers.

Since its establishment in 2008, the **European Institute of Innovation and Technology (EIT)** and its Knowledge and Innovation Communities have developed their own education programmes that have a very strong focus on the delivery of entrepreneurship and innovation skills and are tailored to the needs of the European innovation system. The hallmark of EIT educational programmes is to not only educate students to know, but also to know what to do and how to solve

⁷ https://ec.europa.eu/education/education-in-the-eu/european-education-area/european-universities-initiative_en

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021XG0610%2802%29>

⁹ http://sepie.es/doc/comunicacion/prensa/2020/european_universities_initiative_results_of_covid19_impact_survey.pdf

¹⁰ [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32021G0226\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32021G0226(01))

¹¹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2021.431.01.0001.01.ENG

¹² https://eua.eu/downloads/publications/eua_international_partnerships_survey.pdf

real life problems, all framed within an entrepreneurial mindset. The EIT KICs higher education partners focus on developing innovative curricula that provide students, entrepreneurs and business innovators with the knowledge and skills necessary for a knowledge and entrepreneurial society. These innovative programmes are based on partnerships between different universities, companies and research centres that collaborate closely and offer double degrees, international and cross-sectorial mobility experiences, as well as applied innovation and entrepreneurship education.

At the EU level, tools for building transparency to underpin and recognise mobility include the **Erasmus Charter for Higher Education**¹³ (ECHE), which provides a quality framework for European and international cooperation activities that a HEI needs to carry out as a prerequisite to receive funding within Erasmus+. **Bologna transparency tools** facilitate fair recognition of foreign qualifications and/or study periods. Supporting tools also include overarching and national qualifications frameworks (QFs), the European Standards and Guidelines for Quality Assurance of Higher Education (ESG), and the Database of External Quality Assurance Results (DEQAR).¹⁴

Other EU transparency tools¹⁵ - including the European Qualifications Framework¹⁶, the Europass Platform, the Diploma Supplement¹⁷, the European Credit Transfer and Accumulation Systems (ECTS) - advance the work towards qualifications frameworks, recognition and learning outcomes, facilitate student-centred learning and teaching, and make studies and courses more transparent. Europass and the European Digital Credentials Infrastructure facilitate issuing and verifying the authenticity of qualifications. In 2018 the Council had emphasised the need for “automated mutual recognition¹⁸” of qualifications, requiring that Member States not to setup separate recognition procedures for holders of foreign qualifications from other EU Member States for the purpose of further learning. The UNESCO Global Convention on the Recognition of Qualifications Concerning Higher Education (2019) aims to facilitate international academic mobility and promote the right of individuals to have their higher education qualifications evaluated through fair, transparent, and non-discriminatory manner.¹⁹

2.3 Benefits of transnational cooperation

Transnational cooperation makes it possible for knowledge and innovation processes to be more widely disseminated and more openly accessible. HEIs are an integral part of the transnational movement of people and ideas, forming the vital knowledge value chains that have become indispensable to our European way of life. Transnational cooperation is a key enabler for achieving mutual understanding and shared goals that serve the whole of society and create public value, bringing wide-ranging economic and non-economic benefits at national, regional, institutional and individual levels.

Key benefits include but also go far beyond **improving the quality of education and research, enhancing opportunities, and preparing learners and researchers to live and work in a globalised world.** Transnational cooperation is seen by HEIs, their learners, researchers and staff

¹³ <https://erasmus-plus.ec.europa.eu/resources-and-tools/erasmus-charter-for-higher-education>

¹⁴ DEQAR currently lists over 60,000 ESG-aligned accreditation/evaluation reports on 2,700 Universities in the EHEA; it covers 21 European higher education systems comprehensively.

¹⁵ <http://ehea.info/page-tools>

¹⁶ <http://ehea.info/page-standards-and-guidelines-for-quality-assurance>

¹⁷ <http://ehea.info/page-diploma-supplement>

¹⁸ [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32018H1210\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32018H1210(01))

¹⁹ <https://en.unesco.org/themes/higher-education/recognition-qualifications/global-convention>

as indispensable for building trust between nations, peoples, and cultures across Europe and around the world, including promoting positive attitudes towards democracy.²⁰

European HEIs cooperate more intensively in comparison to other world regions, especially in the areas of teaching and learning, research, knowledge exchange and internationalisation. HEIs that work together with other institutions, businesses and industries, governments, regional bodies or across borders generally perform better than those less focused on cooperation.²¹ The benefits of transnational cooperation (Table 1.1) are reflected in the *Cooperation Index* developed by U-Multirank²² noting that positive effects of cooperation are related to the specific profiles of the institutions, demonstrating that they tend to strategically seek out cooperation in the areas they value most, and generally perform better than universities that do not.

Table 1.1 ²³ Benefits of transnational collaborative partnerships (<i>benefits for which causal relationship has been empirically proven are bolded</i>)	Macro	Meso	Micro
Economic	<ul style="list-style-type: none"> ▪ Improve the efficiency and effectiveness of the higher education system ▪ Contribute to the economic development of the community ▪ Alleviate scarcity of workforce in strategic sectors ▪ Improve the quality of human capital ▪ Increase rate of technological innovation and use ▪ Economic growth ▪ Brain gain ▪ More and better patents ▪ Economies of scale 	<ul style="list-style-type: none"> ▪ Increase institutional revenue: more and better patents, fees from international students and scholars, research grants, access to/exchange of financial resources ▪ Increase efficiency in using time and resources ▪ Enhance competitiveness on the global/national educational market 	<ul style="list-style-type: none"> ▪ International scholarships and grants ▪ Improve labour market outcomes (higher employment rates, lower unemployment rates, higher earnings) ▪ Higher likelihood of employment at home and abroad
Non-economic	<ul style="list-style-type: none"> ▪ Improve and diversify knowledge ▪ Promote the reputation of the higher education system abroad ▪ Increase the quality of education ▪ Improved higher education standards 	<ul style="list-style-type: none"> ▪ Provide additional uses for educational content ▪ Develop and/or internationalise the curriculum ▪ Enhance the diversity of programmes/expand educational offerings ▪ Offer mobility opportunities to students, faculty and staff 	<ul style="list-style-type: none"> ▪ Improve the efficiency and effectiveness of the higher education system ▪ Contribute to the economic development of the community ▪ Access a wide range of online & offline academic resources

²⁰ https://eenee.eu/wp-content/uploads/2021/05/EENEE_AR36.pdf

²¹ <https://www.umultirank.org/press-media/press-releases/u-multirank-creates-new-higher-education-cooperation-index/>

²² <https://www.umultirank.org/university-rankings/top-performing-universities/2021/map/>

²³ https://eenee.eu/wp-content/uploads/2021/05/EENEE_AR36.pdf

Table 1.1 ²³ Benefits of transnational collaborative partnerships (<i>benefits for which causal relationship has been empirically proven are bolded</i>)	Macro	Meso	Micro
	<ul style="list-style-type: none"> ▪ Contribute to the country's influence on the international scene ▪ Improve country image ▪ Improve diplomatic relations, foreign policy, national security, peace and democracy ▪ Increase linguistic diversity ▪ Increase access to education ▪ Positive attitudes towards open borders and democracy 	<ul style="list-style-type: none"> ▪ Enrich library holdings and e-learning platforms ▪ Diversify faculty, staff and student body ▪ Increase research output and quality ▪ Reach and recruit more and better international students ▪ Develop/strengthen institutional capacity ▪ Advance campus internationalisation ▪ Improve standing in global rankings ▪ Knowledge about operating in foreign jurisdictions ▪ Consolidate partnerships, academic research collaborations and alliances ▪ Gain prestige and reputation ▪ Strengthened research and teaching capacity ▪ More and better scientific output ▪ Attractiveness to foreign academics 	<ul style="list-style-type: none"> ▪ Enable faculty to improve their teaching and research skills ▪ Exposure to world-class facilities, faculty and staff ▪ Increase research productivity ▪ Mobility capital ▪ Developing international cooperation and collaboration skills ▪ Enhance intercultural experience, awareness and understanding ▪ Better foreign language proficiency ▪ Increased mobility ▪ More and better publications

Transnational cooperation and partnerships bring benefits to the entire higher education institution across all the four missions, focusing primarily on “enhanced international cooperation and capacity building” (36%), “improved quality of teaching and learning” (17%), and more and better scientific output, and facilitated the mobility of students and staff²⁴.

Learners and staff benefit²⁵ from improved employment or career opportunities at home or abroad, **better language proficiency**, and authoring more and better publications.²⁶ Graduates see the advantages that derive from transnational partnerships: approximately 90% of young Europeans believe it is important to have an experience abroad. In addition, 91% agree automatic recognition of academic qualifications and learning periods abroad is important, and **93% think it is a good idea to create a European degree delivered** by alliances of HEIs, offering students

²⁴ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

²⁵ <https://doi.org/10.1080/03075079.2020.1725873>

²⁶ <https://op.europa.eu/en/publication-detail/-/publication/09cf3e0b-e6f6-11e8-b690-01aa75ed71a1> ; <https://europa.eu/eurobarometer/surveys/detail/2186>

the chance to study in different EU countries, with a flexible choice of courses or modules offered within the alliances. Over half of those surveyed had improved their language skills and benefitted from discovering other cultures and habits.²⁷ Increasing the involvement of professional staff²⁸ in transnational cooperation should be equally important, for instance for peer-learning and career enhancement. A survey found that 83% of the respondents consider that **collaborations add value to "mobility of both students and staff"** and are **beneficial for "attracting foreign students"** (~80%), since HEIs with better reputation attract higher shares of mobile students²⁹, while research excellence is highly relevant for mobile doctoral students. The pursuit of research excellence needs to be underpinned by a system where universities are seen as attractive employers, providing rewards and incentives, clear career paths and the opportunities for collaboration and mobility.

Strategic transnational partnerships are boosting scientific capacity, inclusion and research outcomes.³⁰ They can help to provide access to infrastructure and key equipment, expand research opportunities, and boost interdisciplinary research and research intensity, while increasing both opportunities to exploit intellectual property and the viability of spin-offs and start-ups. HEIs need to provide outstanding research infrastructure and rationalisation of the R&I landscape in Member States to make the local R&I systems and ecosystems more efficient and effective. Transnational research collaboration is an important indicator of research excellence, overtaking single-author or intra-institutional collaboration, and in turn improves reputation.³¹ Research also shows that HEIs involved in transnational networks are more likely to be high in global rankings.³² Inclusiveness is key to boosting the excellence of all HEIs, while reducing fragmentation of the higher education sector. Deep, geographically balanced and inclusive transnational cooperation such as the one developed under the European Universities Initiative can raise excellence levels for all participating institutions, by enabling knowledge and best practices flows between institutions and between high and less performing regions. Inclusive cooperation mainstreams excellence in science and creates value. The pursuit of excellence, in line with the Pact for Research and Innovation in Europe, will enable more of Europe's HEIs to become world leading in delivering excellent challenged-based and applied research and providing cutting-edge research-led education. It will allow to overturn concentration of the top 200 institutions in mostly western and northern Member States, and to ensure that excellence-based funding is better distributed.

HEIs contribute to their cities and regions by offering a range of services to society, contributing to cultural activities, and helping make cities more attractive places to live and socialise.³³ Transnational activities and partnerships activate economic activity in the region, attract learners and retain talent, thus boosting their industrial and local innovation ecosystems. Proactive societal engagement and European solidarity are fundamental values of HEIs.³⁴

²⁷ <https://europa.eu/eurobarometer/surveys/detail/2186>

²⁸ <https://doi.org/10.2760/560460>

²⁹ <https://publications.jrc.ec.europa.eu/repository/handle/JRC108895>

³⁰ <https://doi.org/10.2861/6854> p.28

³¹ <https://doi.org/10.1080/03075079.2020.1749254>

³² <https://www.e-elgar.com/shop/gbp/research-handbook-on-university-rankings-9781788974974.html>

³³ <https://www.oecd.org/education/imhe/highereducationandregionsgloballycompetitiveandlocallyengaged.htm>

³⁴ <https://eua.eu/downloads/publications/universities%20without%20walls%20a%20vision%20for%202030.pdf> ;
<https://eua.eu/downloads/content/eua%20strategic%20plan%20final.pdf>

2.4 Structural and operational issues to address for enabling deeper and more effective institutional transnational cooperation

Seamless and more effective cooperation between HEIs is required to address all-encompassing challenges related to: **sharing and pooling joint resources among HEIs** (such as financial, human, digital and physical resources, technology transfer and services), the effective **delivery of joint educational activities and programmes** including the design and award of **joint degrees, more embedded mobility** opportunities within the curricula, **sustainable long-term funding** (at EU, national and regional levels), effective **quality assurance and recognition** of joint programmes and activities, **digital infrastructure interoperability** supporting joint digital and blended activities, the development of **interdisciplinary** modules, notably in the context of joint work through **challenge-based approaches**, effective **governance** arrangements enabling deep and ambitious transnational cooperation.

Administrative and legal issues were identified in a survey as amongst the top perceived barriers to transnational cooperation.³⁵ HEIs are bound by their national frameworks for financing, infrastructure, accreditation, quality assurance and employment aspects. Transnational cooperation arrangements are still firmly embedded within a country's policies and legislation, often causing difficulties when it comes to organising joint educational programmes, joint curricula and study credits, issuing joint degrees, including a joint European degree. Notwithstanding progress in this area³⁶, for example through the Bologna Process and the European Universities initiative, according to a survey by the European University Association (EUA), 68% of HEIs perceive legal obstacles as a challenge to deeper cooperation in the European Universities initiative, specifically with regards to the accreditation of joint programmes, and 59% cite administrative obstacles to deeper cooperation, due to different institutional structures and processes.³⁷

Difficulties with pooling and sharing infrastructure, staff and resources. An EUA survey³⁸ reports that partners share their assets in only 8% of transnational partnerships. This is corroborated by the European Universities alliances implementation that reported difficulties with pooling and sharing resources prevented them from deepening their cooperation: for example through joint recruitment of staff and staff secondment within the members of the alliance; transnational mobility embedded in the curricula of students; joint infrastructure management, including digital infrastructure and services; and, the joint management of funding from different EU and national sources. Existing models³⁹ to establish a legal statute enabling seamless pooling of resources, offer only partial answers to the needs to share seamlessly financial, human, digital and physical

³⁵ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

³⁶ For example, Hungary has in May 2020 amended its National Higher Education Act to allow for an easier accreditation of joint programmes which include Hungarian universities. This legislative act was adopted after close interaction with European Universities including Hungarian Universities.

³⁷ <https://eua.eu/downloads/publications/eua%20council%20position%20on%20future%20of%20eui.pdf>

³⁸ <https://eua.eu/downloads/publications/eua%20international%20partnerships%20survey.pdf>

³⁹ For example, Erasmus+ European Universities alliances UNA Europa and Circle U have set up an ASBL (Association Sans But Lucratif) under Belgian Law; ECIU is a foundation under Dutch law; 4EU+ is in the process of setting up a registered association/incorporated association under German law, abbreviated e. V. (this is a registered voluntary association). EUCOR - a European Campus alliance of five universities based in the Upper Rhine region – is established as an EGTC. Some also ask to learn from other national tools, such as e.g. the French COMUE (COMmunautés d'Universités et Établissements or the European Grouping of Territorial Cooperation (EGTC), European Research Infrastructure Consortium (ERIC), European Economic Interest Grouping (EEIG), European Partnerships or European Company (also known as SE (Societas Europea in Latin).

resources, infrastructure and services, as well as to enable the effective implementation of joint educational and research activities.

The award and delivery of joint programmes and degrees are not possible everywhere in the EU mainly due to national legislation and administrative practices hampering for example the accreditation of joint programmes, quality assurance, language requirements, and formal requirements for diplomas issued (e.g. paper to be used for the diploma, its size, the logo(s) that can be printed on it, the use of languages, who can/should sign the diploma). Operational and legal barriers⁴⁰ identified by the implementation of the European Universities alliances corroborate these messages and echo **difficulties** related to quality assurance and recognition of the programmes offered jointly by the alliances, hampering the design and setup of **joint degrees**, including a **joint European degree**. This means that a single country can limit progress among participating higher education institutions in an alliance by making it very challenging to award a joint degree at all levels (Bachelor, Master, Doctorate) or to set up a joint programme.

Degree mobility remains limited and is often not structurally embedded in students' curricula, even though learning mobility remains an important objective of transnational cooperation. According to Eurostat, only 1.3 million out of a total 17.5 million tertiary students in the EU are undertaking their studies in a Member State other than the country where they had completed their secondary education, and among those, there were 0.6 million students⁴¹ from Europe studying in the EU at tertiary level.⁴² According to another survey⁴³, around **65% of the partnerships do not offer any mobility schemes at Bachelor level, while embedded mobility is mainly offered at Master level. Short term mobility is the most commonly offered scheme for researchers and teaching staff** (offered in 51% and 61% of the partnerships respectively). Obstacles arise inter alia through the ways that educational programmes and other opportunities may be organised or recognised.

The lack of sustainable funding and the complexity of EU and national funding instruments was identified as a barrier to transnational cooperation.⁴⁴ In most EU-27 Member States, government funding for higher education is more than half of total funding for the higher education sector.⁴⁵ Over the last decade, there has been an uplift and stabilisation of public funding with variations across Member States. However, the COVID-19 pandemic exposed what stakeholders call a “chronic underfunding of HEIs” across many European higher education systems, revealing structural weaknesses and competitive gaps.⁴⁶

⁴⁰ <https://www.nvao.net/nl/attachments/view/background%20paper%20for%20the%20euniq%20workshop-rome>

⁴¹ https://ec.europa.eu/eurostat/databrowser/view/educ_uae_mobs02/default/table?lang=en

⁴² https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Learning_mobility_statistics#Credit_mobile_graduates; https://eter-project.com/uploads/assets/pdf/ETER_student_mobility.pdf

⁴³ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

⁴⁴ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

⁴⁵ <https://eua.eu/downloads/publications/eua%20pfo%20part%202%20report.pdf>;
<https://www.eua.eu/downloads/publications/designing%20strategies%20for%20efficient%20funding%20of%20universities%20in%20europe%20define.pdf>

⁴⁶ <https://book.coe.int/en/higher-education-and-research/9141-higher-education-s-response-to-the-covid-19-pandemic-building-a-more-sustainable-and-democratic-future-council-of-europe-higher-education-series-no-25.html>

Ineffective implementation or lack of European tools and instruments

Deeper cooperation models such as the **European Universities initiative** have shown the limits of the current quality assurance systems that are often not adaptable or flexible enough for deeper transnational operation. Work has already started and progress has been made at European and Member States level to strengthen mutual trust in higher education systems for example through the implementation of the **Council Recommendation on Automatic Mutual Recognition**, as well as the **transparency and quality assurance tools** for higher education developed in European and **Bologna Process**⁴⁷, but legal conditions and practical implementation remain uneven both across countries and across institutions⁴⁸. HEIs engaged in transnational partnerships often mention the lack of common accreditation standards as a serious issue, requiring further actions at EU and national level. Internal and external quality assurance of multinational consortia bringing together HEIs with very different legal and economic constraints, educational environments and quality assurance cultures can show substantial differences in terms of practices and standards.⁴⁹

The **European Approach to the Quality Assurance of Joint Programmes** provides a single integrated procedure in accrediting joint programmes, and thus removes the burden of multiple accreditations. However, since the European Approach is not a legally binding, it requires implementation at national level, and quality assurance/accreditation arrangements still vary from one country to another. Hence, the validity of accreditation for joint programmes is subject to different processes and requirements with regards to (re-) accreditation procedures. External quality assurance issues are an emergent and increasingly important barrier also for digitally enhanced learning and teaching⁵⁰, even more so in the context of changes to the learning environment due to the pandemic.

Different degree structures and ECTS requirements pose obstacles. National restrictions, such as the prescription of a minimum amount of ECTS to be reached by the end of the second cycle, have been introduced in some countries, despite not being required by the Overarching Framework of Qualifications of the European Higher Education Area (QF-EHEA). This hampers the establishment of joint programmes and the award of joint degrees, including a joint European degree, as different partner HEIs may have to conform to different and incompatible national legal requirements on programme duration. Requirements to obtain a certain amount of ECTS credits in a specific way (abroad, or at the home country, for example), or incompatible requirements for the number of ECTS credits allocated are recurrent obstacles encountered by the European Universities and other higher education institution alliances.

⁴⁷ the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), the European Credit Transfer and Accumulation System (ECTS), the European Qualifications Framework (EQF) and the Qualifications Framework of the European Higher Education Area (QF-EHEA), and the European Quality Assurance Register (EQAR)

⁴⁸ https://op.europa.eu/en/publication-detail/-/publication/2fe152b6-5efe-11e8-ab9c-01aa75ed71a1/language-en?WT.mc_id=Selectedpublications&WT.ria_c=677&WT.ria_f=706&WT.ria_ev=search
[Paris Communiqué http://www.ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_final_952771.pdf](http://www.ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_final_952771.pdf)

⁴⁹ **EUniQ project** develops a framework to overcome these differences and in the longer term, allow university alliances to be externally evaluated on an institutional level by a single EQAR-registered quality assurance agency, instead of forcing the alliance to go through lengthy national procedures in all countries. <https://www.nvao.net/en/euniqu>

⁵⁰ <https://eua.eu/resources/publications/953:developing-a-high-performance-digital-education-ecosystem.html>

Untapped potential for effective higher education cooperation

The seamless implementation of interdisciplinary programmes is hampered by specific restrictions for example on the language of instruction, on the online elements embedded in the study programme, national requirements for internships, required procedures for assessment of students, requirements related to employment and working conditions for teaching staff, or regulations on recognition of prior learning.

Partnerships tend to focus on specific topics, are setup for relatively short duration, and rarely cover all four university missions: education, research and innovation and service to society (38%).⁵¹ The need for increased synergies between education and research, along with long-term strategies covering the four missions, was confirmed during stakeholder meetings and interactions with Member States. A survey reported that only 38% of partnerships cover the education, research and innovation mission of higher education institutions in an integrated way.⁵² This suggests there are **insufficient multi-disciplinary collaborations** occurring. **Cooperation is mostly dependent upon individuals in teaching or research, it largely occurs occur at department or faculty level, thus lacking appropriate institutional level sustainability.** Cooperation has been predominantly built bottom-up based on common topics and interests (95%) and existing contacts between staff members (88%).⁵³ While partnerships should involve “general institutional collaboration”, meaning “several levels and different parts of the institution”⁵⁴, the majority of cooperation tends to occur at department or faculty level (59%).

Progress is still to be made on designing effective governance arrangements for deep and ambitious transnational cooperation. The expansion of higher education across Europe, the diversification of provision, new modes of delivery, and heterogeneity of learners, the importance of higher education and research for knowledge and innovation along with increasing levels of investment (public and private) have focused increased attention on the governance of higher education institutions – at the system and institutional level. Issues of accountability and transparency, effectiveness and efficiency, performance and quality are matters of concern that extend beyond the institution itself. European and national competitiveness are strongly aligned with HEI quality, and vice versa.⁵⁵ Student participation in higher education governance is considered one of the foundation values of European higher education⁵⁶. Students have played a key role in the conception and implementation of Bologna Process goals, and are been essential partners in the quality assurance processes, both internal and external.⁵⁷ Likewise, representatives of business/employers, and civil society are considered key stakeholders – all of which strengthen higher education’s role in/for society and the economy.⁵⁸

In this context, higher education institutional governance structures and management practices for transnational alliances could benefit from more active involvement of learners, academics, researchers and professional staff. Increasingly, strategies for **equity, diversity, and inclusion** guide governance practices. The EUA notes that many HEIs make an explicit link between equity,

⁵¹ <https://doi.org/10.2760/560460>

⁵² <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

⁵³ <https://publications.jrc.ec.europa.eu/repository/handle/JRC111663>

⁵⁴ <https://eua.eu/downloads/publications/eua%20international%20partnerships%20survey.pdf>

⁵⁵ <https://www.elgaronline.com/view/edcoll/9781785369742/9781785369742.00008.xml>

⁵⁶ https://doi.org/10.1007/978-94-007-3937-6_34

⁵⁷ <https://www.elgaronline.com/view/edcoll/9781785369742/9781785369742.00035.xml>

⁵⁸ https://www.enqa.eu/wp-content/uploads/Study-on-stakeholder-involvement-in-EQA_web_n.pdf

diversity and inclusion on one side and excellence in teaching and learning and research on the other side.⁵⁹ Nevertheless, often governance arrangements **insufficiently mirror society and diversity of experiences and ideas, while innovative practices insufficiently diffuse within the institution**, negatively impacting the decisions concerning the learning and working environment as well as institutional reputation, and creating challenges for developing transnational cooperation. This pertains to both institutional governance as well as system governance.

2.3. What is needed to build bridges for effective transnational cooperation in higher education

Transnational cooperation is a lever for the deep transformation of higher education institutions across all their missions, for the benefit of the entire higher education community and the society, empowering learners, staff and researchers alike.

For Europe to tackle common challenges, notably the twin digital and green transitions and to build a resilient future, while remaining globally attractive and competitive, it is necessary to **join forces, harness the potential of all available resources and foster the complementary education and research capacities** and strengths through deeper cooperation.

Through a step-by-step approach, it is proposed to support Member States in setting a strategic course for creating optimum conditions for seamless transnational cooperation between HEIs in Europe, and addressing the major challenges through **new instruments** and facilitated implementation of joint transnational educational programmes, when sharing resources, or when embedding mobility modules for students and staff, while enabling a more systematic application of existing and new tools available at EU level, such as those available under the Bologna Process.

While stakeholders acknowledge steps have been taken to overcome existing challenges at the EU, national and institutional level, stronger enabling operational and legislative frameworks and support are needed to ensure legal certainty and a level playing field between HEIs established in different Member States and willing to cooperate, and enable European Universities alliances and similar cooperation models to flourish. Deeper, sustainable and more effective transnational cooperation will depend upon an enabling environment and the knowledge and trust developed and nurtured over time.

To overcome challenges and enable transnational cooperation to deeply transform HEIs across all their missions, stakeholders and Members States called for enabling operational and legal conditions at all levels, from institutional and national to European, taking into consideration the concrete needs of HEIs. Key factors for success that support research excellence are funding frameworks at the various levels (local, regional, national, European) protecting institutional autonomy and academic freedom, removing obstacles to collaboration, and strong, inclusive and effective leadership at the institutional level.

Member States and stakeholders make it clear that a **common vision to make the higher education sector fully fit for the future should build on the experience of the European Universities and enable all willing HEIs to cooperate transnationally in a flexible and sustainable way**. It is necessary to broaden and deepen opportunities for collaboration, modernise regulatory frameworks and innovate educational and research cooperation models for the benefit

⁵⁹ <https://eua.eu/resources/publications/890:diversity,-equity-and-inclusion-in-european-higher-education-institutions-results-from-the-invited-project.html>

of the entire higher education community, learners, researchers and staff, and society. **HEIs should be empowered to work collectively step-by-step towards this long-term vision, with the support of the various complementary EU and national instruments.**

Incentivising closer integration fosters deeper and long-term partnerships, the European Universities Initiative being a testbed for this.⁶⁰ This vision, and the tools and measures associated with it should enable institutions to accelerate their transformation, while incentivising Member States to take action in support of the vision. Through deep and geographically balanced transnational cooperation as triggered by the European Universities Initiative, it is anticipated that excellence levels can be raised for all participating institutions.

Deeper cooperation links with asset sharing among European HEIs allowing to maximise access to and the utilisation of available resources and infrastructure, as well as to increase efficiency and effectiveness. HEIs ask for deeper transnational cooperation to be recognised also from a legal perspective to facilitate both cooperation in all relevant areas of education, research and innovation and common strategic decisions such as the award of joint European degrees and the pooling of resources and activities. Deeper transnational cooperation, with the support of a **legal statute for alliances of HEIs** willing to join forces, can help to build capacity, facilitate access to sustainable modern infrastructure and shared common resources (financial, human, digital and physical resources) and services, and develop joint educational and research activities.

Such new legal solutions for cooperation should also allow for agile and flexible governance structures, without additional burden to the existing governance system of individual institutions. They can facilitate transnational cooperation through for example joint resources management, simplified accreditation of joint programmes, leading to the design and award of joint degrees, simplified internal and external quality assurance processes, pooling IT infrastructure that enhances students and researchers learning by sharing online environments and activities (for example, learning management systems, digital libraries or MOOC platforms). The efforts to establish a sustainable long-term legal cooperation mechanism for the transnational cooperation of HEIs can **benefit from the experience of existing legal instruments at the European level, such as the European Regulation on the European Grouping of Territorial Cooperation (EGTC) and the European Research Infrastructure Consortium (ERIC).**

Even though these instruments were created for different sectors and purposes, they could provide inspiration for a future solution for higher education cooperation. The EGTC as a legal entity is designed to facilitate and promote cross-border, transnational and interregional cooperation, and is currently already used in Europe within the higher education sector.⁶¹ The ERIC regulation facilitates the establishment and the operation of research infrastructures with European interest among several EU countries and associated countries and foresees a process for the establishment of the legal entity which could be applied *mutatis mutandis* to a platform for cooperation between universities. Other European initiatives such as Europe's Strategy Forum on Research Infrastructures (ESFRI) and the European Open Science Cloud also facilitate deeper integration of digital and physical assets.⁶²

⁶⁰ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>; https://cdn1.euraxess.org/sites/default/files/policy_library/report-intersectoral-mobility.pdf

⁶¹ EUCOR - a European Campus alliance of five universities based in the Upper Rhine region – is established as an EGTC.

⁶² <https://www.the-guild.eu/publications/looking-to-the-future.pdf>; <https://www.embl.org/documents/wp-content/uploads/2020/08/EIROforum-position-paper-value-of-RIs-May-2020.pdf>; <https://eudat.eu/sites/default/files/PositionPaperEOSCcard.pdf>

In this context, the EU can support the Member States and HEIs to pilot the use of existing European instruments as a step towards the potential development of a **legal statute for alliances of higher education institutions** to facilitate deeper, long-term and flexible transnational cooperation.

The added value of a higher education experience needs to be reflected and recognisable in the qualification the students obtain. Quality education for all, freedom for the learner and for the educator to move in Europe and the freedom for institutions to associate are among the main principles of the European Education Area. Legal and administrative framework should **remove red tape for the delivery of joint programmes and joint degrees**, with a view to making them automatically recognised among participating institutions and everywhere in the EU. Achieving seamless transnational cooperation is first and foremost for the students: developing transnational campuses, enabling students to begin their curriculum in one institution and to follow on smoothly in another country, as well as making mobility easier and more flexible for example by mainstreaming the use of the European Student Card initiative.

A joint European degree would stand for the ability to create knowledge and innovation across borders and disciplines, to increase the visibility and reputation of the HEIs in Europe and beyond, and to bring benefits to the students with a qualification that would be recognised as excellent, international and innovative by employers across the EU. A joint European degree, to be delivered at national level, would attest learning outcomes achieved as part of transnational cooperation among several institutions, offered for example within European Universities alliances. It will be important to examine feasibility and what would be the concrete steps⁶³, for institutions and for national systems. The EU can facilitate this process and point to where key steps need to be taken by the different actors, for instance through piloting the first steps towards a joint European degree.

Transnational cooperation in higher education needs to be enabled to cater for more innovative ways to embed and stimulate mobility for both students and staff⁶⁴, accounting of the needs of different learners and circumstances.⁶⁵

Clear perspectives for adequate, consistent, and sustainable investment in higher education offer the necessary continuity and stability to achieve deeper and more effective cooperation. Investment in higher education and research is essential and of great public value. Sustained investment is particularly relevant in the context of the European Universities initiative.⁶⁶ It is equally important to ensure resources are managed well and used effectively, equitably, and efficiently. **Synergies**⁶⁷ between European programmes and funds (such as Erasmus+, Horizon Europe, Digital Europe, the Cohesion Policy funds, and InvestEU), and with national funds enable better funding allocation, accounting for regional or national context. For instance, Initiatives for excellence under Horizon Europe will empower European HEIs to actively shape and amplify the transformation of the European R&I ecosystem by mapping and modelling national excellence initiatives and providing best practices and mutual learning, supporting Member States to setup their own excellence initiatives and join forces for further cooperation. The initiatives for

⁶³ <https://eua.eu/resources/expert-voices/186:possible-scenarios-on-the-path-towards-a-european-degree.html>

⁶⁴ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mapping-european-transnational-collaborative-partnerships-higher-education>

⁶⁵ <https://doi.org/10.1007/s10734-016-0016-x>;

⁶⁶ <https://www.cesaer.org/content/5-operations/2020/20200420-position-european-universities.pdf>;
<https://eua.eu/downloads/publications/eua%20council%20position%20on%20future%20of%20eui.pdf>

⁶⁷ [synergies_study_final_report_6oct2017.pdf \(europa.eu\)](https://eua.eu/downloads/publications/eua%20council%20position%20on%20future%20of%20eui.pdf)

excellence will also aim at deepening the models of integrated and inclusive cooperation piloted by the European Universities Initiative, supporting quality, further cooperation with surrounding ecosystems, and mainstreaming a culture of excellence in research and value creation.

Trust in each other's education system is indispensable, building on transparent quality assurance systems and automatic recognition of qualifications and learning periods abroad.

Trust should encompass all forms and modes of education: from physical to online, on campus and in work-based and other situations, from full degrees to micro-credentials, and accounting for changing needs and situations (such as online learning or happening outside of the country of residence). External quality assurance safeguards the autonomy of higher education institutions and maintains public trust for automatic recognition within and across Member States, through action at system and institutional levels. It helps link education with the world of work and involve students to ensure high quality learning provision goes together with inclusiveness.

The most recent developments in higher education, notably the European Universities Initiative and the boost in upskilling and reskilling needs, makes it clear that there is a need to **strengthen the link between internal and external quality assurance and recognition processes**. Building on national legislation and EU level policy framework as powerful instruments, national authorities should continue building transparent education systems to foster recognition, and promote deeper interaction with ENIC/NARIC network of academic recognition centres, higher education institutions, quality assurance agencies, students, and other relevant organisations. Higher education institutions need to integrate recognition processes (for full qualifications, study periods and prior learning, including micro-credentials) in their internal quality assurance systems, ensuring that recognition practices facilitate mobility and cooperation, and improve flexibility of the study processes. The ENIC-NARIC information centres should also help supporting transparent and fair recognition of third country qualifications, including those of refugees.

Inter-disciplinary and cross-sectoral approaches enable student-centred learning, with more personalised content, based on innovative pedagogies, enabling the development of forward-looking skills and competences, making best use of digital technologies, blended learning and work-based learning. **Challenge-based approaches** combining shared education, teaching and learning, pedagogical innovation, research and innovation allow involved parties to work jointly and across disciplines through investigation and invention, thus reinforcing excellence in education and research and engagement with citizens.

To deliver on their missions, higher education institutions must develop innovative governance arrangements that reflect the diversity of the staff and learners, and the community in which the institution is based⁶⁸, and that foster meaningful contribution from higher education to regional growth and sustainability. Innovative governance models should respond to challenges for transnational cooperation, as well as accommodate the evolving needs and dynamics of inter-institutional collaboration. They should be developed as a natural expansion of the joint efforts towards intra-university collaboration.⁶⁹

⁶⁸ <https://eua.eu/downloads/publications/eui%20governance%20paper%20new.pdf>

⁶⁹ *ibid*

Success stories of projects making deeper transnational cooperation amongst universities in Europe a reality

Young Universities of the Future (YUFE)⁷⁰ is a European Universities Alliance funded through Erasmus+ and Horizon 2020 and involves ten dynamic, young, student-centred research-based universities and four non-academic partners from the non-governmental and private sectors, aiming to establish a true European University. YUFE promotes active European citizenship within a shared European environment, where teams of students, staff, citizens, businesses and policy makers collaborate to address European and global challenges.

Eucor-The European Campus⁷¹ is funded by the European Regional Development Fund (ERDF). It is a trinational alliance of five universities in the Upper Rhine, a border region between Germany, France and Switzerland. In 2015, the five universities created a dedicated legal entity in the form of a European Grouping of Territorial Cooperation (EGTC), solidifying cooperation that dates back to 1989. The universities retain their autonomy, but act together in a targeted way in order to strengthen their cooperation in the fields of teaching, research and innovation and boost cross-border mobility.

The **INnovative Verona University Inter-disciplinary, Inter-sectoral and International Training Experience (INVITE)**⁷² is funded through the Horizon 2020 Marie Skłodowska-Curie COFUND Action. The project is co-financed by the Regione del Veneto and involves 17 universities and research centres in Europe and beyond, 13 enterprises and organisations from the economic sector, 3 public organisations and 1 network. It has a strong inter-sectoral, interdisciplinary and international research and training dimension. It offers 14 doctoral positions to train early-stage researchers in multiple scientific disciplines.

Open EURAXESS⁷³ is funded by Horizon 2020. It aims to strengthen the effectiveness and optimize the services of all EURAXESS partners in an innovative and open EURAXESS network to facilitate researchers' mobility through free of charge assistance, including support for career development. The project ensures collaboration among member countries and institutions to improve access to jobs and better working and employment conditions for researchers across Europe and beyond. Over 70% of EURAXESS service centres for researchers are universities, across 42 countries coverage.

3. Funding and investment in higher education

Achieving inclusion and excellence in the transformation of European HEIs, taking transnational cooperation among European HEIs to the next level, engaging in unfolding green and digital transitions, and equipping learners with transversal skills needed in innovation ecosystems, require both funding resources and effective monitoring.

3.1. Investment into the European higher education sector

As European society confronts the challenges noted above, expectations about the contribution of higher education and research to overcoming them have grown. In monetary terms, evidence shows high returns on investment (ROI) into higher education for individuals, sectors, and countries.⁷⁴ The net public return on tertiary education investment is estimated between two and

⁷⁰ <https://yufe.eu>

⁷¹ <https://www.eucor-uni.org/en/about-us/>

⁷² <https://sites.centri.univr.it/invite/project/>

⁷³ <https://cordis.europa.eu/project/id/786133>

⁷⁴ <https://openknowledge.worldbank.org/handle/10986/29672>

three times the amount of public investment.⁷⁵ As for the research and innovation mission of HEIs, ROI on research has an even greater positive effect, with every €1 invested by Framework Programme generating, on average, added value of € 13 to the business sector.

There are also important spill-over contributions from higher education, such as intergenerational benefits and attitudes to science and technology as evidenced in response to COVID-19 restrictions and vaccine take-up, and support for democratic values.⁷⁶ These intangible benefits can be difficult to estimate. Thus, a “long-term horizon is the best comprehensive benchmark for judging value” and what is being measured by society and different stakeholders at different times.⁷⁷

Consequently, the funding of higher education needs to take both short-term and long-term perspectives. However, trends in public expenditure for higher education show fluctuation over time due to circumstances in the global or national economies, stage of development and relative wealth, and priorities.⁷⁸ Demographic, economic and labour market factors, as well as the education system and network of HEIs within a given country (such as their location, size, mission, research intensity) also influence how resources are allocated and deployed.

In most EU-27 Member States, government funding for higher education accounts for more than half of total funding for the higher education sector.⁷⁹ The remaining sources include non-education private sector (mostly tuition fees from households), other non-education private entities (contracts with business and industry), and international organisations (mostly EU funding).

National public investment does not, however, provide a complete picture of resources invested in higher education. For example, countries in which R&D is conducted in HEIs tend to report higher levels of expenditure per student than those where R&D is conducted in public institutions or industry.⁸⁰ Some Member States rely on private investment (e.g. Netherlands, Ireland).⁸¹

Among OECD members, only countries with a high level of private spending can boast higher education expenditure beyond 2% of GDP (e.g., Canada, Australia, the United States, and Chile). Conversely, of countries that rely on private funding for more than 50% of expenditure, only Japan has a share of GDP spent on higher education that is below the OECD average.⁸²

Following the global financial crisis in 2008, public funding generally rebounded and stabilized, but progress towards full recovery has been frustrated by the COVID-19 pandemic, exposing variations between countries in tertiary education spending. The EU 27 overall invested in 2019 0.8% of GDP, and the Euro area level was 0.7%. For EU member states the range goes from 0.3% in Italy, 0.4% in Luxembourg, to 1.6% in Denmark and 1.7% in Finland.⁸³

⁷⁵ [https://www.oecd.org/education/EAG2014-Indicator%20A7%20\(eng\).pdf](https://www.oecd.org/education/EAG2014-Indicator%20A7%20(eng).pdf).

⁷⁶ <https://doi.org/https://doi.org/10.1787/498e9bc7-en>

⁷⁷ https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/College_ROI.pdf, p4-5, 17

⁷⁸ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_education#Large_differences_between_countries_in_the_importance_of_expenditure_on_education

⁷⁹ <https://eua.eu/downloads/publications/eua%20pfo%20part%202%20report.pdf>

⁸⁰ <https://doi.org/10.4135/9781529714395.n163>, p235, 272-273

⁸¹ https://www.oecd-ilibrary.org/sites/735e1f44-en/1/3/2/index.html?itemId=/content/publication/735e1f44-en&_csp_ =202a1a6f4fab5e9c9e2fb61b1036af0d&itemIGO=oecd&itemContentType=book#section-d1e1775

⁸² https://www.oecd-ilibrary.org/sites/735e1f44-en/1/3/2/index.html?itemId=/content/publication/735e1f44-en&_csp_ =202a1a6f4fab5e9c9e2fb61b1036af0d&itemIGO=oecd&itemContentType=book#section-d1e1775

⁸³ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_education#Large_differences_between_countries_in_the_importance_of_expenditure_on_education

3.2. Investment needs

The pandemic has renewed concerns about what some stakeholders call a “chronic underfunding of universities” across many European higher education systems,⁸⁴ thereby exposing structural weaknesses and competitive gaps.⁸⁵ Pandemic lockdowns have impacted broad areas of higher education activities, as well as “other” sources of HEI income, such as the provision of services (e.g., accommodation), contract research (income from the private sector), tuition fees from international students and philanthropic funding.⁸⁶ Europe’s performance in the Innovation Scorecard⁸⁷ or in global university rankings is often pointed to as an indication of a growing gap between European higher education performance and that of the US and more recently Asia.⁸⁸

A recent sample survey⁸⁹ of HEIs has echoed these concerns, highlighting the need for investment in digital infrastructure (86%), staff training (62%), and physical infrastructure (17%) with an emphasis on technology-enhanced learning and teaching methods as well as virtual mobility. With reference to research funding, there is a recognition that significant barriers persist in obtaining funding for interdisciplinary and transdisciplinary research in the current discipline-oriented competitive climate.⁹⁰

The most critical topics identified through a survey of universities, where HEIs anticipate both increased need of investments and lack of funding are the following: renovation and modernisation of HEIs building, including the “greening of the HEIs”; digitalisation of HEIs: infrastructure, equipment, and use; research and innovation infrastructures and equipment; career development and opportunities for academic and administrative staff; technology transfer from HEIs into industries; Lifelong learning training and Skills for the Future curricula; sustainability of European Alliances and cross-university collaboration.

There is considerable concern that the COVID-19 pandemic has aggravated social inequalities and regional and institutional disparities across the EU.⁹¹ A gap is most evident between those in better funded western and northern European system, and in underfunded higher education systems in southern, central and eastern Europe – a gap that also mirrors disparities in higher education attainment and outcomes.⁹² This picture replicates the inter-EU investment gap evident in the aftermath of the 2008 financial crisis, with countries like Luxembourg, Germany, Switzerland, Norway, Austria and Denmark significantly increasing funding compared to their GDP growth, and countries such as the Czech Republic, Romania, Slovakia and Ireland experiencing reduced funding.⁹³

Going forward there is a need to ensure a more adequate and consistent level of investment in higher education. GDP provides an important international reference point and target for

⁸⁴ <https://eua.eu/downloads/publications/university%20autonomy%20in%20europe%20iii%20the%20scorecard%202017.pdf>, p. 56

⁸⁵ <https://book.coe.int/en/higher-education-and-research/9141-higher-education-s-response-to-the-covid-19-pandemic-building-a-more-sustainable-and-democratic-future-council-of-europe-higher-education-series-no-25.html>

⁸⁶ https://eua.eu/downloads/publications/pfo%20part%201_ppt%20-%20im.pdf.

⁸⁷ https://ec.europa.eu/info/research-and-innovation/statistics/performance-indicators/european-innovation-scoreboard_en

⁸⁸ Hazelkorn, E. (2021). What do Global University Rankings Tell Us About US Geopolitics in Higher Education? In J. J. Lee (Ed.), *U.S. Power in International Higher Education*. New Brunswick and London: Rutgers University Press.

⁸⁹ https://eua.eu/downloads/publications/pfo%20part%201_ppt%20-%20im.pdf

⁹⁰ <https://www.cesaer.org/content/5-operations/2020/20201130-open-letter-effective-for-fund-inter-and-transdisciplinary-research.pdf>

⁹¹ <https://doi.org/10.2766/069216>;

⁹² <http://www.nesse.fr/nesse/activities/reports/mind-the-gap-1>

⁹³ https://eua.eu/downloads/publications/eua%20briefing_the%20impact%20of%20the%20covid-19%20crisis%20on%20university%20funding%20in%20europe.pdf

government expenditure, but it does not measure health, education, equality of opportunity, the state of the environment or many other indicators of the quality of life and sustainability.⁹⁴ The concept of “investment” suggests spending is purposive, essential and of public value. To meet rising demand from learners, society and the economy, investment in public infrastructure and services (which includes higher education and research) is more vital than ever.⁹⁵ At the same time, it is vital to ensure all resources (financial, capital, human and natural) are managed well and used effectively, equitably, and efficiently.

3.3. What has been decided/achieved so far?

The following important policy statements and actions have focused on quality investment in education and training, including higher education:

- *Council Resolution of 27 February 2020*⁹⁶ on education and training “... the most powerful investment that can be made in people and in the future and its social and economic returns for individuals, employers and society as a whole”.
- *Commission Communication of 30 September 2020*⁹⁷ on achieving the European Education Area by 2025 notes the intensification of work on investment, including establishment of an expert group on quality investment in education and training.
- *Council Resolution of 18 February 2021* on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021- 2030)⁹⁸ agrees “achievement of the European Education Area ... calls for an increased focus on investment in education.”

Several EU programmes and funding are vital for supporting higher education in the EU:

- *Erasmus+ and Horizon Europe*⁹⁹: Authorities in Member States remain responsible for the way higher education is organised and delivered in their countries. EU activities are designed to bring an additional international dimension to studying, teaching, researching or making policy in higher education. Through its Erasmus+ and Horizon Europe programmes, the EU supports international exchanges for students, academic staff and researchers, as well as structured cooperation between higher education institutions and public authorities in different countries. The objective is to create new opportunities for people in higher education to learn from one another across national borders and to work together on joint projects to develop good learning and teaching, undertake excellent research and promote innovation.
- *Digital Europe Programme*¹⁰⁰ aims to build the strategic digital capacities of the EU and facilitate the wide deployment of digital technologies for the use of Europe’s citizens, businesses, and public administration. A share of its budget will support the design and delivery of specialised programmes and traineeships for future experts or entrepreneurs in the key strategic areas, and upskilling people through short-term training and courses.

⁹⁴ <https://www.consilium.europa.eu/media/49818/beyond-gdp-measuring-what-matters-issues-paper-19-may-2021-web.pdf>

⁹⁵ Mazzucato, M. (2018). *The Value of Everything. Making and Taking in the Global Economy*. Penguin Books.

⁹⁶ 2020/C 64/01 [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020G0227\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020G0227(01))

⁹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625>

⁹⁸ 2021/C 66/01 [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021G0226\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021G0226(01))

⁹⁹ [Home | Erasmus+ \(europa.eu\)](#) and [Horizon Europe | European Commission \(europa.eu\)](#)

¹⁰⁰ <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>

- *European Social Fund Plus*¹⁰¹ (ESF+) is the main funding instrument to implement the European Pillar of Social Rights. It aims to achieve high employment levels, fair social protection and a skilled and resilient workforce. ESF+ covers all stages of education, from early childhood education and care to adult education.
- *European Regional and Development Fund*¹⁰² (ERDF) aims to strengthen economic, social and territorial cohesion in the European Union by redressing the main regional imbalances in the EU. In close coordination with ESF+, it supports investment to improve access to inclusive and quality services in all stages of education, training, and lifelong learning, through developing infrastructure and relevant equipment. This support also includes the provision of conditions for digital education, accessible remote learning possibilities and skills development in smart specialisation and cross-border projects.
- *Technical Support Instrument*¹⁰³ assists national authorities to improve their capacity to design, develop and implement reforms. Education and training are key policy areas covered by the Technical Support Instrument.
- *InvestEU*¹⁰⁴ brings together existing EU financial instruments. It includes the InvestEU Fund, which mobilises public and private investment using guarantees from the EU budget; the InvestEU Advisory Hub, providing technical assistance to project promoters seeking financing; and the InvestEU Portal, bringing together projects and investors. HEIs could benefit from the financial products and advisory services available under the Social Investment and Skills Window and the Research, Innovation and Digitisation Window.
- *The Recovery and Resilience Facility*¹⁰⁵ (RRF) aims to support public investments and structural reforms to improve economic and social resilience of Member States and support the green and digital transitions. Investment and reforms in areas such as social, employment, skills, education, research and innovation and health, business, environment (including public administration and the financial sector) are prioritised. Based on current RRP plans, €9 billion will be targeted on higher education (16% of the budget allocated to education and skills), with a substantial focus on digitisation (digital infrastructure, digital skills for students and academics). In the context of RRF, Member states have indicated plans to support widespread transformation, improving access to higher education, and digital transition of higher education.

3.4. What further action is needed?

A mobilisation of all potential EU sources of funding to support the higher education sector in its transformation is of major importance. The new MFF and RRF provide significant opportunities for HEIs.

The overall estimated budget available to universities and other types of HEIs across the new MFF (2021-2027) and NextGenerationEU amounts to around EUR 80 billion¹⁰⁶, and unfolds as follows:

¹⁰¹ <https://ec.europa.eu/european-social-fund-plus/en>

¹⁰² https://ec.europa.eu/regional_policy/en/funding/erdf/

¹⁰³ https://ec.europa.eu/info/overview-funding-programmes/technical-support-instrument-tsi_en

¹⁰⁴ https://europa.eu/investeu/home_en

¹⁰⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0241>

¹⁰⁶ The final figure will depend on the outcome of the on-going programming of funds.

- **Higher education: around EUR 25 billion**, with the support of Erasmus+, the European Social Fund Plus, the European Regional Development Fund, Digital Europe, Invest EU and the Recovery and Resilience Facility.
- **Research and innovation: around EUR 54 billion**, with the support of for example Horizon Europe, Invest EU and the Recovery and Resilience Facility.

Higher education stakeholders have expressed concerns about funding cuts across key EU-wide programmes and at national level and call for increased investment.¹⁰⁷ At the same time, they view the current environment as an opportunity to further modernise and achieve efficiencies by transforming modes of delivery via digitalisation (14% respondents), through internationalisation (6%), strengthen collaboration (4%), and sharing resources (2%).¹⁰⁸

They also call for a better balance between trust and control, thereby granting sufficient autonomy to develop their own financial allocation mechanisms, adapt strategies and streamline and use resources as appropriate to their mission, as well as a shift from compliance to performance orientation.¹⁰⁹ This would involve, for example, wider acceptance of nationally recognised practices in terms of audit, accounting, and management practices.¹¹⁰

Collaboration and resource sharing between HEIs, including different types of institutions, is seen as one of the best ways to improve efficiency, enhance quality and bring wider benefits to learners and society. Pooling/sharing facilities provides opportunity to build capacity and capability and increase efficiency and breadth of service across “back office” or support functions. Collaboration for library and information resources, technology transfer offices (TTO), doctoral education and training, and internationalisation are areas which could benefit from collaboration. Digitalisation of operations can enable HEIs to provide high quality services across multi/virtual campuses which would be difficult to do as individual or smaller institutions or institutions with geographical disparate facilities.

Collaboration can extend to the regional, national, or transnational level, providing a wider range of education and research provision, thereby making more efficient and effective use of resources (financial, capital, human and natural). To achieve this, efficiency should be integrated more holistically into the goals of cross-institutional partnerships, in terms of good practice dissemination, knowledge exchange as well as sharing of tangible and intangible resources. There could be better use of peer-learning to share knowledge and hands on knowledge between practitioners and policymakers.¹¹¹

The formation of Civic and Regional Alliances between different HEIs and with other educational providers, business and employers, and civil society can support stronger and sustainable regional innovation ecosystems by boosting capacity and capability. They can develop a collective vision

¹⁰⁷ <https://www.eua.eu/downloads/assignments/common%20statement%20-%20funding%20campaign.pdf>; https://www.vsnunl/en_GB/news-items/nieuwsbericht/653-last-chance-to-invest-in-european-higher-education-and-research.html

¹⁰⁸ [https://eua.eu/downloads/publications/pfo part 1 ppt - im.pdf](https://eua.eu/downloads/publications/pfo%20part%201%20ppt%20-%20im.pdf)

¹⁰⁹ [https://eua.eu/downloads/publications/pfo part 1 ppt - im.pdf](https://eua.eu/downloads/publications/pfo%20part%201%20ppt%20-%20im.pdf)

¹¹⁰ <https://eua.eu/downloads/publications/taking%20of%20the%20next%20level%20-%20the%20university%20perspective.pdf>; <https://www.cesaer.org/content/5-operations/2020/20200316-adopted-position-sustainable-funding.pdf>; <https://www.earto.eu/wp-content/uploads/EARTO-input-towards-HEs-MGA-Ensure-continuity-with-H2020-personnel-costs-options-final.pdf>

¹¹¹ <http://efficiency.eua.eu/>; <https://eua.eu/downloads/publications/efficiency%20effectiveness%20and%20value%20for%20money.pdf>

for the region based on an analysis of local needs and opportunities and provide an educational bridge and opportunities for learners throughout their lives.

Higher education financing models are evolving in many European countries as policy responses to the need for greater **efficiency and effective use of public resources and for quality and return-on-investment**.¹¹² Different issues arise with respect to the system, sector or institutional level, and the dimension of operation, such as operational efficiency, academic efficiency and efficiency through strategic governance. Increasing focus and emphasis on these matters raises concerns about the (negative) impact on quality.

A range of accountability and transparency instruments has responded to dissatisfaction with the level of transparency and accountability traditionally associated with HEIs. Performance-based funding systems (PBF) have become a common feature in many European higher education systems. They are currently in use in 15 out of 22 European systems.¹¹³

The link between investment and quality is complex and indirect. Accordingly, stakeholders warn that PBF should represent additional funding rather than taking away basic or core funding to universities. It is argued that ill-designed competitive schemes bear the risk of an increase in homogenization or isomorphism, and a decrease in quality of teaching and research, e.g., by lowering standards to increase graduation rates, or name dropping to increase the number of publications and citations.¹¹⁴

The OECD has been to the forefront of advising that while resources are important, they are only part of a more complex picture about what makes the difference in quality. This depends more crucially upon policy choices and how resources are used.¹¹⁵ It is possible to design PBF systems that reward rather than punish institutions, using performance compacts/contracts as a way of building consensus and trust between HEIs and governments.¹¹⁶

To better understand the link between funding and quality, the Expert Group on Quality Investment in Education and Training is conducting an in-depth analysis of potential and alternative approaches and policy options most likely to boost education outcomes and inclusiveness while improving the efficiency of spending. DG EAC is supporting a study of performance-based funding mechanisms, mapping their usage and effectiveness. It also aims to examine national financial support to the European Universities Initiative.¹¹⁷

There is potential in **creating synergies between EU policy initiatives**. Their range, focus and complexity can potentially hinder active participation and success. Overlapping or poorly aligned policies and initiatives is frequently noted by stakeholders. Better synergies would help reduce overlap and inefficiencies in the system. These could include alignment of policy priorities and programme objectives, alignment of funding rules and implementation modalities, and linkages between research- and teaching-focused programmes.¹¹⁸

¹¹² (COM) 2006 208 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52006DC0208> ; COM(2011) 567 final. http://ec.europa.eu/education/higher-education/doc/com0911_en.pdf.

¹¹³ <https://openknowledge.worldbank.org/handle/10986/29740>

¹¹⁴ <https://eua.eu/resources/publications/984:nextgenerationeu-what-do-national-recovery-and-resilience-plans-hold-for-universities.html>

¹¹⁵ <https://www.oecd.org/education/myths-schooling.htm>

¹¹⁶ <https://research.utwente.nl/en/publications/performance-agreements-in-denmark-ontario-and-the-netherlands-rep>

¹¹⁷ The “Study on the state and effectiveness of national funding systems of higher education for the European Universities Initiative” is being conducted by ICF from January 2021 until April 2022.

¹¹⁸ https://eua.eu/downloads/publications/policy%20input_synergies%20paper%20.pdf

In addition, further simplification of application and management procedures could achieve lower entry barriers to programmes (thus improving participation throughout Europe) and maximising the impact of EU funds overall.¹¹⁹ Introducing a funding action line in the Bologna Process or the EHEA/EEA could also help.¹²⁰

InvestEU aims to bring together all existing EU financial instruments under a single umbrella. Further work should be undertaken to see how to establish a coordinated system that is more user-friendly to/for all stakeholders.

In the area of **transnational cooperation** stakeholders particularly report that more sustainable funding resources are urgently needed. This is especially true for the European universities. Stakeholders, alliances, and organisations representing the European Universities Alliances highlight that funding resources are crucial for delivering ambitious new activities and transnational cooperation. Coordinators highlight a need to ensure bridge funding for the European Universities, before more holistic and integrated funding perspective is developed in the future.

The 2020 EUA survey¹²¹ on international strategic partnerships also clearly underlined that the lack of funding had been one of the main reasons (along with the timeframe) for institutions not participating in the European Universities initiatives (84%). Strategic capacity was not the issue, and only 19% of respondents cite lack of strategic as a reason for not participating.

More generally, because of the level of demand on the Erasmus+ budget, many promising cooperation projects to develop innovative practices for the transformation of European higher education are not funded. This represents both an individual missing return on investment for HEIs who submitted the project, after often dedicated considerable internal resources to the application, and a collective shortfall for the transformative ambition for HEIs.

There is a need to recognise and valorise the good quality of projects proposals under Erasmus+ that could not be funded. This would help HEIs in their search for alternative financing for these projects at national level, including through the European Regional Development Fund and the European Social Fund+.

In a first step, a certificate from the Commission could be delivered to the HEIs involved in good quality proposals that could not be funded at EU level. These HEIs could use it to facilitate their access to national funding for these projects. Each individual HEI involved in a multi-beneficiary alliance would need to seek for alternative funding individually in their national context. This approach could be tested for the Call for Proposals on the European Universities initiative in 2022.

Communication and involvement of Member States is key, and the Commission would need to raise awareness about a certificate among Members states and higher education national funding agencies, and obtain the commitment of Members States to facilitate such an approach, encourage them to share good practices on national co-funding of transnational cooperation projects.

In a second step, the existing Seal of Excellence tool, a quality label awarded to project proposals to help them find alternative funding via ERDF/ESF+, could be operationalised under Erasmus+, building on what is done under Horizon Europe.

¹¹⁹ <https://eua.eu/downloads/publications/taking%20simplification%20of%20eu%20funding%20to%20the%20next%20level%20-%20the%20university%20perspective.pdf>; https://www.eua.eu/downloads/publications/policy%20input_on%20the%20model%20grant%20agreement.pdf; <https://eua.eu/downloads/content/key%20messages%20for%20efficiency.pdf>

¹²⁰ https://www.researchgate.net/publication/289125308_A_Policy_Gap_Financing_in_the_European_Higher_Education_Area

¹²¹ <https://www.eua.eu/downloads/publications/eua%20international%20partnerships%20survey.pdf>

Higher education in Europe is dependent on public expenditure but public funding for European Higher education institutions (HEIs) has declined or stagnated in most higher education systems over the last decade. **Financial revenue from private sources** other than households (e.g., tuition fees) has traditionally represented a small share of institutional budgets across OECD countries. However, research suggests that higher education systems that can mobilize both public and private resources, are able to achieve higher levels of spending than those that rely only upon public resources. This can lead to improvements in equality (as more study places are made available), and quality (as improved human and physical resources are provided to learners).¹²² Examples of such initiatives include:

- An EU guarantee for borrowing, such as the Erasmus+ Master Loan¹²³, and through Invest EU, can incentivise additional private and public investment and create leverage on EU investments.
- A “Skills & Education” pilot scheme (launched in 2020 under EFSI) has shown great interest from financial intermediaries and higher education stakeholders for such a new financial instrument, targeting individual students & learners (different lending models) as well as institutions (universities and SMEs).
- As part of the new MFF (2021-2027), the Commission has negotiated with the European Investment Bank (EIB) Group that this pilot scheme is integrated under the “Social Investment and Skills” window of the InvestEU programme.

Consideration should be given to achieving a better balance between public and private actors in the investment needs of the higher education sector, on the grounds of necessity and equity. Notably, this should be considered in the context of the European Strategy for Universities. DG RTD is supporting a study of Knowledge Ecosystems in the new ERA including development of an investment agenda for the European Strategy for Universities.

Regarding the access to EU funding sources and the alignment with national public funding sources, it is difficult for universities and other higher education institutions, to obtain a comprehensive overview of the support available to implement their training, research and innovation agenda. This complexity can even deter stakeholders and policymakers from envisaging, developing and implementing synergies of funding. This leads to a knowledge gap in the HEIs on how to use alternative funding sources. As noted above, a lack of **information, pathways and/or synergy between EU programmes** and initiatives is a constant point of criticism by stakeholders. The programmes above can help create a more balanced approach to make more dynamic, sustainable, and competitive HEIs across the diversity of the EU. Better access to information on these programs and better synergies between their funding instruments is necessary would be a first step towards a future (long term budget after 2027) capability to support universities holistically, and in particular develop for ambitious initiatives of transnational cooperation, such as the European universities and other types of alliances, a more integrated system blending different funding levels and programs.

¹²² <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-2273.2012.00534.x>

¹²³ <https://erasmus-plus.ec.europa.eu/opportunities/individuals/students/erasmus-master-degree-loans>

4. Quality and relevance of higher education

4.1. The context: innovation, skills, societal and labour market needs

Higher Education Institutions (HEIs) impart knowledge and equip young people with skills and competences. A key question is to what extent HEIs provide learning outcomes of high quality. There are different ways to define and measure “quality”, but there is no doubt that Europe depends on excellence. The quality of learning outcomes is a defining factor for Europe’s international competitiveness as well as its attractiveness in the global race for talent.

Quality is linked to the requirement to **provide skills and competences that are relevant** in a context of a quickly evolving labour market. 80 million workers in Europe are affected by mismatched skills with respect to the demands of employers, which hinders Europe’s recovery and sustainable development, as well as profound structural change in markets and technologies.

The quality and relevance of HEIs is therefore reflected in the part they play in their **local industrial and innovation ecosystems**. They interact with business and civil society and **intersectoral exchanges** take place, which is essential to adapt higher education to labour market needs and overcome skills mismatches. Intersectoral also means transnational, as the societal relevance of higher education is boosted by **transnational exchanges, mobility across ecosystems, and partnerships between them**.

Innovative pedagogies

To achieve inclusive and excellent education, and increase the diversity of students, support is needed to **stimulate pedagogical innovation**, including technology-enabled, digital, and blended approaches. New approaches promoting **interdisciplinary and challenge-based pedagogies** should be stimulated, such as through the STEAM approach to STEM education.

The creation of ‘**living labs**’ is one example. It helps students’ critical thinking, creative and entrepreneurial skills by having them work on complex societal challenges together across disciplines and countries, and with academics, researchers, entrepreneurs, companies, cities, and regions. This intersectoral and challenged-based approach is key to provide future generations with the knowledge, skills and attitudes that are relevant in a context of quickly evolving labour market needs, as well as profound structural changes in markets and technologies.

Challenge-based learning has a strong connection to **student-centred learning and teaching**, which is crucial to ensure quality and relevance of higher education. Students should be encouraged to take responsibility for their own learning, to enable them to actively participate in the construction of knowledge, and to develop their autonomy as learners through self-reflection, research-based activities, and improved learning skills.¹²⁴ The application of student-centred learning and teaching within higher education requires shifting focus from what teachers teach to what learners learn so that students can experience a transformative learning experience and thus achieve deeper learning outcomes.

For HEIs to fully and successfully implement student-centred learning and teaching, 10 mutually reinforcing elements were identified¹²⁵: Policies, rules and regulations enabling student-centred learning and teaching; Student-centred curriculum and pedagogy; Student-centred assessment;

¹²⁴ <https://nesetweb.eu/en/resources/library/mapping-and-analysis-of-student-centred-learning-and-teaching-practices-usable-knowledge-to-support-a-more-inclusive-high-quality-higher-education/>

¹²⁵ *ibid*

Flexible learning pathways; Learner support; Teaching support; Active learning spaces and academic libraries; Learning technologies infrastructure; Community learning connections and partnerships; Quality assurance supporting student-centred learning and teaching

Innovation

Ultimately, pedagogical innovation ensures that students, academics and researchers are equipped with the relevant knowledge, skills and attitudes that will help spurring innovation. Europe's innovation performance has been improving, but it varies across EU member states. The Regional Innovation Scoreboard¹²⁶ shows the most innovative regions are located primarily in Northern and Western Europe, while innovation capacity in Eastern and Southern regions is considerably lower, although convergence is continuing. Increasing innovation capacity in less innovative regions is the necessary precondition for better cooperation, growth, and success.

Europe's capacity to accelerate its innovation performance relies on harnessing the full potential of all its HEIs, strengthening human capital and talent development, investing in research and innovation, and translating knowledge and research into new products and services.¹²⁷ HEIs need to support both research and innovation in products, services and solutions, as well as ensure that their education programmes provide graduates with the skills and competences required by the dynamically changing labour market.

The **geographical distribution of HEIs** has implications for innovation and competitiveness, especially for peripheral regions where there is a need for both human capital and RDI. Areas in the south and east of Europe, and in parts of France or Germany have low density of HEIs.¹²⁸ In 20% of NUTS-3 regions, a majority of the population cannot reach a university within 45 minutes, and these regions represent 14% of the EU plus EFTA's population.¹²⁹ Future sustainable social and economic development will need innovation hubs/regional clusters in all areas providing frameworks and support to sustain innovation ecosystems and ensure social cohesion.

Skills development

Innovation in technology with the green and digital transitions are shaping future labour markets and innovation ecosystems. A key objective is to ensure that people of all abilities and circumstances can easily use the new technologies to help solve problems in their daily lives, to access business and public services, and social and cultural activities –no one can be left behind.

Most new employment opportunities in industrial and innovation ecosystems will require **higher-order cognitive, communication and interpersonal skills, complex problem solving, creativity, fluency of ideas and active learning**, requiring people to have broad-based skills alongside specialist knowledge. Cedefop reported in 2018 that 43% of workers in the EU had seen the technologies they work with change, while 47% have experienced changes in their working methods or practices.¹³⁰ At the same time, 53% of EU companies had difficulties filling vacancies for ICT specialists in 2018.¹³¹ Cedefop forecasts that by 2030 around 41% of all jobs will require

¹²⁶ https://ec.europa.eu/growth/industry/policy/innovation/regional_en

¹²⁷ [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/652060/EPRS_BRI\(2020\)652060_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/652060/EPRS_BRI(2020)652060_EN.pdf) p.4

¹²⁸ https://eter-project.com/assets/pdf/ETER_regional_dimension.pdf

¹²⁹ https://ec.europa.eu/regional_policy/sources/docgener/focus/2018_12_access_universities.pdf p.2

¹³⁰ <https://op.europa.eu/en/publication-detail/-/publication/8d1a7959-2284-11e8-ac73-01aa75ed71a1/language-en>, p. 21

¹³¹ <https://doi.org/10.2760/679150>

higher level qualifications, and 45% medium qualifications.¹³² Digital, innovative, and creative skills will be essential to enable people to take advantage of new employment opportunities within a global talent pool in an inter-connected world.

There is room for further improvement in the development of student and researchers **entrepreneurial mindsets**. The results of the survey conducted by the European University Association¹³³ reveal that universities contribute to the development of student entrepreneurial skills in various ways, but currently relatively few students benefit from entrepreneurship training. Furthermore, the degree with which HEIs measure their success as innovators in terms of nurturing the start-up sector is limited. Only 52% of universities use it to a large or moderate extent. Equipping students and researchers with entrepreneurial skills represents a very important element to foster not only more attractive and effective careers, but also an enhanced circle of knowledge production, circulation and valorisation.

The concept of “labour mismatch” covers complex and multifaceted divergences between qualifications and skills needs.¹³⁴ To improve the balance between skill supply and labour market demand requires **sustained dialogue and partnership** within a local ecosystem between different policy areas (e.g., education, industry, labour, and regions) and between HEIs, business and civil society, and is intertwined with knowledge development and innovation policies.

Ensuring that students have appropriate knowledge, skills, and competences requires innovative work-based learning initiatives and entrepreneurship programmes to promote links between SMEs and education as well as giving learners the appropriate skills to start their own business. **Lifelong learning** has to be a career-long priority to update knowledge and skills of graduates.

Local impact

The HE landscape is heterogeneous. Even in the case of elite HEIs, the concept of boosting their excellence would fall short in an ecosystem where non-HEI research centres, academy of science institutes, polytechnic universities, universities of applied science and specialised laboratories are all potential agents of excellence in a fragmented set-up. Hence, inclusiveness is key.

HEIs contribute to **knowledge spill-over** within their ecosystems. They provide entrepreneurship training and opportunities, equipping graduates with the skills necessary to start businesses. They can encourage spin-offs and provide access to multidisciplinary research environments. They support new businesses by offering incubation service, including supporting the development of business ideas (business plan competitions, support from technology transfer office), offering physical space (accommodation, research facilities), support services, networking opportunities, mentoring staff and funding opportunities.¹³⁵

However, while Europe generates excellent new knowledge, its **research intensity** is weaker than some global competitors, and conversion into successful products or services less frequent. Too few start-up companies in Europe have become global innovation leaders in the past two decades, due to a weaker system of scientific research, connectivity between HEIs and business, too little intersectoral mobility of researchers, and a lower capacity of EU innovative companies and fewer

¹³² https://www.cedefop.europa.eu/files/3077_en.pdf

¹³³ https://www.eua.eu/downloads/publications/innovation%20survey_position.pdf

¹³⁴ <https://www.cedefop.europa.eu/en/videos/skills-mismatch-labour-markets>

¹³⁵ <https://doi.org/10.1016/j.techfore.2018.10.021>

entrepreneurs/intrapreneurs.¹³⁶ There can also be an expectations mismatch regarding the roles of different actor in Smart Specialisation Strategies (RIS3) implementation and actual practice with implications for the regional innovation ecosystem.

4.2. Challenges for innovation ecosystems and higher education

HEIs increasingly prioritise their wider responsibilities within the development of their **local ecosystems**. HEIs are active co-creators of knowledge, addressing societal challenges in the research they conduct.¹³⁷ This is reflected in the education offered, so that graduates become well suited to labour market needs and acquire entrepreneurial skills, facilitating the creation of innovative new businesses, products and services. Promoting exchanges in different fields, HEIs thus serve as “anchor institutions” within their cities and regions.¹³⁸

The local ecosystem is a “quintuple helix”, embracing HEIs, business, government and public authorities other educational providers, citizens and civil society organisations, in highly collaborative, open, flexible, sustainable, and ecologically sensitive ways.¹³⁹ HEIs are major local employers, purchasing goods and services, supporting cultural activities and acting as global gateways for attracting both investment and mobile talent. A close relationship with all stakeholders can ensure that educational and research programmes remain relevant to local as well as broader societal needs through providing on-going educational and training opportunities.

Shaping the climate, social and economic transitions, and responding to health and socio-economic emergencies such as the COVID-19 crisis, require that excellent research results and innovation are efficiently valorised, and are transformed into sustainable solutions with economic and social value across the EU. A policy review¹⁴⁰ shows that valorisation of research results and innovation occurs through various intertwined channels through which actors including academia, industry, private investors, public authorities and civil society interact. There is increasing evidence of the need to redefine the tools that lead to knowledge valorisation and adapt them to new ecosystem based approaches. The 2020 Science, Research and Innovation Performance Report underlined the need to maximise the value of the higher education sector Research and Innovation results and improve the management of research-based knowledge to keep up its competitiveness, while an OECD report on **university–industry cooperation** directly addresses decreasing levels of cooperation.¹⁴¹

Balancing priorities at local, national and EU levels can present HEIs with **significant barriers to cooperation** within their local ecosystems. Teaching programmes often regard societal innovation and entrepreneurship as “add-ons” and not a core part of curricula. **Exploitation of innovations** arising from academic research can be hampered by uneven regulatory frameworks for intellectual property rights, and by **institutional bureaucratic inertia**.

Knowledge about innovation capital or start-ups, essential for **scaling-up innovation** from the research level, can be difficult to access, especially if scaling-up takes place across different countries. There are also different practices and experiences across sectors and disciplines,

¹³⁶ https://www.interregeurope.eu/fileadmin/user_upload/plp_uploads/policy_briefs/2020-01-17_Policy_Brief_University-Industry_Collaboration.pdf p.8

¹³⁷ COM (2020) 625 final <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0625&from=EN>

¹³⁸ <https://op.europa.eu/en/publication-detail/-/publication/e22067d5-c253-11ea-b3a4-01aa75ed71a1/language-en>

¹³⁹ <https://publications.jrc.ec.europa.eu/repository/handle/JRC88895>

¹⁴⁰ <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/f35fded6-bc0b-11ea-811c-01aa75ed71a1>

¹⁴¹ <https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/support-national-research-and-innovation-policy-making/srip-report> ; https://read.oecd-ilibrary.org/science-and-technology/university-industry-collaboration_e9c1e648-en#page1.

between staff and students, and between HEIs. Researchers attempting to start a spin-off often face bureaucracy at their institution, including being asked for a large equity share of the spin-off. Limited access to finance is also mentioned as a main challenge for new firms.¹⁴²

Technology transfer offices liaise between HEIs and the private sector, providing access to knowledge and expertise, services, consultancy and can identify and license new technologies and intellectual property, and offer facilities and equipment. However, most start-ups in Europe are created directly in the marketplace, bypassing institutional support mechanisms:¹⁴³ of 116 venture capital-backed European unicorns, only 4 were university spin-offs.¹⁴⁴

Intersectoral mobility is a form of indirect cooperation between HEIs and businesses. However, practice varies across Member States.¹⁴⁵

This results in challenges for businesses, restricting exchanges with HEIs. There are insufficient **incentives and resources at the policy or institutional level** to support collaboration, patent valorisation arising from publicly funded research, or incentives for knowledge transfer.¹⁴⁶ There are significant cultural differences and ways of working between higher education and business with different motivations and different approaches to time management. Too few employers know how to engage, resulting in fewer links with a university to serve on a committee or advise on course design – and vice versa. **SMEs refer to insufficient knowledge about support programmes** or how to access such programmes.¹⁴⁷ Promotion of and support for boundary-spanning functions and people who engage regularly, and often informally, can have a positive impact.

Intersectoral exchanges thrive in combination with **interdisciplinary pedagogies**. However, the structures of many study programmes are based on defined disciplines, rather than fully integrated interdisciplinary and transdisciplinary offers. Interdisciplinary teaching is more common in final year undergraduate or postgraduate study, or is associated with research projects that are more oriented towards solving challenges. Interdisciplinary and intersectoral approaches can be strengthened by collaboration between HEIs on a transnational level, requiring a **European space of learning and research based on a high degree of transnational cooperation and mobility** between education, training and research institutions, business and civil society organisations.

The importance of balanced **brain circulation** has been increasingly emphasised in policy discussions in recent years. In the context of the Croatian Presidency of the Council of the EU (January-June 2020), the Zagreb Call for Action on Brain Circulation (2020) implied a strong call on EU Member States to jointly address unbalanced mobility of researchers in Europe.¹⁴⁸ Each country has its historical and geographical background, culture, governance, and level of funding, which determine the factors leading to brain drain. Problems at country level tend to be characterised by a low capacity to consolidate young researchers in the system; a low capacity to attract and retain foreign researchers to the system and the need to foster reforms at system-level.

Lastly, researchers, lecturers and all others aspiring an academic career face a lot of challenges to their personal career development. **Research activities are often fragmented**, determined by

¹⁴² https://eurotech-universities.eu/wp-content/uploads/2016/05/SV_EuroTech_Professors_Discussion_on_EU_Innovation.pdf

¹⁴³ <https://doi.org/10.1007/s11187-016-9757-2>.

¹⁴⁴ <https://sifted.eu/articles/universities-startup-spinouts/>

¹⁴⁵ <https://op.europa.eu/en/publication-detail/-/publication/e9a18042-bdce-11eb-8aca-01aa75ed71a1/language-en>

¹⁴⁶ https://ec.europa.eu/jrc/communities/sites/jrccties/files/technology_transfer_-_from_research_to_impact.pdf

¹⁴⁷ <https://doi.org/10.1177/0950422221995114>

¹⁴⁸ <https://euraxess.ec.europa.eu/worldwide/asean/eu-member-states-discuss-future-intra-european-talent-mobility>

publications and citations, and being competitive rather than collaborative. **Researchers' careers** still face many challenges, including precarious working conditions, unbalanced geographical mobility, trainings too much focused on careers in academia and insufficient intersectoral mobility between academia and business, or the lack of adequate recognition at societal level. There are also insufficient actions supporting females in technology and innovation, blocking the expansion of the share of female academics in STEM-fields.

4.3. What has been achieved so far?

To maximise impact, HEIs need to be more fully engaged, open, collaborative, and networked, building innovative, transformative hybrid structures that combine physical and virtual places which build bridges across sectors and borders. The renewed **EU Agenda for Higher Education** identified building inclusive and connected HEIs as one of its four priorities. In addition to the EU Green Deal and the significant investments into higher education through the Recovery and Resilience Package, a range of EU initiatives support better alignment between HEIs with their ecosystems.

In the context of innovation, innovative practices are boosted in many ways. The European Institute of Innovation and Technology (EIT) has launched the Higher Education Initiative which focuses specifically on HEIs in areas of lagging research and innovation capacities. Building bridges with more advanced institutions it “will improve their entrepreneurial and innovation capacity across all institutional levels”.¹⁴⁹ The EIT Label offers a quality seal for education programmes focussing specifically on innovation, and entrepreneurship, leadership, and creativity.¹⁵⁰

The **Widening Participation and Spreading Excellence** action targets resources on countries with lagging research and innovation capacities.¹⁵¹ **Responsible research and innovation (RRI)** is an inclusive approach, ensuring societal actors work together across the research and innovation process, and that account is taken of the effects and potential impacts on the environment and society.¹⁵² **Inno-EU+** is a pilot initiative to support innovation capacity building for higher education.¹⁵³ **Erasmus+ Alliances for Innovation** strengthen Europe’s innovation capacity by boosting innovation through cooperation and flows of knowledge between higher education, VET, research, and the broader socio-economic environment.¹⁵⁴

The **EU Knowledge Valorisation Platform**¹⁵⁵ provides an interactive forum to stimulate cooperation across borders and improve the broad uptake of research results in society and the economy. It enables the sharing of best practice, knowledge and expertise, thereby improving policies and investments and enhancing capacities and skills related to knowledge valorisation.

In the context of HEI-industry cooperation, **European Regional Development Funds (ERDF)** strengthen economic, social, and territorial cohesion in the European Union.¹⁵⁶ Its funding helps to “modernise education and training systems” by supporting infrastructure and equipment for

¹⁴⁹ <https://eit.europa.eu/news-events/news/new-eit-initiative-launched-boost-innovation-higher-education>

¹⁵⁰ <https://eit.europa.eu/our-activities/education/eit-label>

¹⁵¹ https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/widening-participation-and-spreading-excellence_en

¹⁵² <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/public-engagement-responsible-research-and-innovation>

¹⁵³ <https://www.univ-tech.eu/inno-eut>

¹⁵⁴ https://ec.europa.eu/programmes/erasmus-plus/programme-guide/part-b/key-action-2/partnerships-cooperation/alliances-innovation_en

¹⁵⁵ https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/eu-valorisation-policy/knowledge-valorisation-platform_en

¹⁵⁶ https://ec.europa.eu/regional_policy/en/funding/erdf/#1

inclusive and quality education.¹⁵⁷ ERDF now facilitates investment into building human capital and modern skills in smart specialisation priority areas identified in the process of entrepreneurial discovery.¹⁵⁸

Like ERDF, other initiatives address university-industry cooperation. The **European Battery Alliance (EBA)** brings together EU national authorities, regions, industry research institutes, HEIs and other stakeholders in the battery value chain. **Interreg** also positions university-industry collaboration as a critical component of the innovation process.¹⁵⁹ **InnoCentive** is an open innovation marketplace which connects “Seekers” (companies and Start-ups) with Solvers (experts “from within and outside industry who offer perspective and free insights”).¹⁶⁰ **HEInnovate** is a flagship initiative with OECD to provide guidance and self-assessment for HEIs to become more innovative and entrepreneurial, being used since 2013 by 1,300 HEIs.¹⁶¹

Added to this, there are a couple of initiatives addressing the gaps between academia and civil society and business. **Smart Specialisation Strategies (RIS3)** help HEIs to connect different actors and fuel innovation, as shown by evidence from Lithuania¹⁶², Portugal¹⁶³, northeast Romania¹⁶⁴, and northern Netherlands.¹⁶⁵ **Higher Education for Smart Specialisation (HESS)** explores how HEIs contribute to smart specialisation knowledge production as well as human capital development, knowledge dissemination and transfer, and supporting entrepreneurship.¹⁶⁶

The European Research Area actions include **Guiding Principles for knowledge valorisation**¹⁶⁷ and a Code of Practice for the smart use of intellectual property, by the end of 2022. The Council Proposal for a Pact for Research and Innovation in Europe¹⁶⁸ identified “value creation” as a key principle underpinning European research and innovation, and highlighted “knowledge valorisation” as a priority area for joint action by Member States.

Skills

In line with the **European Skills Agenda**, a feasibility study tested a new concept to promote demand-driven industry-academia knowledge exchange and uptake in European-wide setting. International teams of students, researchers and enterprise representatives explored companies’ business challenges and produced concrete scenarios for product and service to help participating companies to successfully develop their business and overcome their challenges.¹⁶⁹

Good practice at the national level includes Spain and the Netherlands, which emphasise HEIs engagement with the society.¹⁷⁰ In Ireland, engagement is a component of performance agreements between HEIs and the Government.¹⁷¹ **Regional Skills Fora** provide a structure at NUTS 3 level

¹⁵⁷ https://ec.europa.eu/regional_policy/en/policy/themes/education-training/

¹⁵⁸ https://ec.europa.eu/regional_policy/en/policy/themes/education-training/

¹⁵⁹ https://www.interregeurope.eu/fileadmin/user_upload/plp_uploads/policy_briefs/2020-01-17_Policy_Brief_University-Industry_Collaboration.pdf

¹⁶⁰ <https://www.innocentive.com>

¹⁶¹ <https://heinnovate.eu/en>

¹⁶² <https://op.europa.eu/en/publication-detail/-/publication/a401420b-af7d-11ea-bb7a-01aa75ed71a1/language-en>

¹⁶³ <https://publications.jrc.ec.europa.eu/repository/handle/JRC123230>

¹⁶⁴ <https://s3platform.jrc.ec.europa.eu/en/w/higher-education-for-smart-specialisation-the-case-of-north-east-romania>

¹⁶⁵ <https://publications.jrc.ec.europa.eu/repository/handle/JRC121432>

¹⁶⁶ <https://doi.org/10.2760/376572>;

¹⁶⁷ https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/eu-valorisation-policy_en

¹⁶⁸ https://ec.europa.eu/info/news/commission-adopts-proposal-pact-research-and-innovation-europe-2021-jul-16_en

¹⁶⁹ <https://op.europa.eu/en/publication-detail/-/publication/a795bea8-19bb-11ec-b4fe-01aa75ed71a1>

¹⁷⁰ <https://www.regionalskills.ie>

¹⁷¹ <https://hea.ie/assets/uploads/2018/01/higher-education-system-performance-framework-2018-2020.pdf>

for employers and HEIs to meet the skills needs of their regions.¹⁷² For research, engagement and societal benefit are both underpinning principles and indicators for research, for example the Swedish Research and Innovation Bill 2021.¹⁷³ Intersectoral mobility schemes are prevalent in countries with a longstanding tradition of HEI-business collaboration (e.g., Belgium, Luxembourg, Denmark, Sweden, and Norway), but are less evident in Central and Eastern Europe where the innovation capacity of these countries is lower. Such schemes are usually supported and implemented with support of European Structural Investment Funds.¹⁷⁴

To facilitate and support the development and cross-border networking of national knowledge transfer office networks and the work of existing pan-European networks, the Commission's Joint Research Centre has launched an initiative that aims at enhancing collaboration on knowledge transfer among the TTOs (Technology Transfer Offices) of large European public research organisations - the "**European TTO circle**". The TTO Circle includes 31 of the largest European public research organisations (PROs) whose prime mission is to perform research. They have agreed to join forces on Technology Transfer to boost innovation in Europe through a set of initiatives, including: fostering the use of their knowledge portfolio; sharing best practices, knowledge and expertise; performing joint activities; establishing informal channels of communication with policymakers; organising training programmes; and developing a common approach towards international standards for the professionalization of Technology Transfer.

Mobility and staff

Intersectoral exchanges are also supported through the **Erasmus+ mobility projects**, most notably with the **student traineeships for study** that sent almost 580,000 students abroad on often intersectoral exchanges under the former Erasmus+ programme. Related to this the **Erasmus Mundus Master** programmes which include a specific topic, link across European regions, or provide practical fieldwork that encourages students to acquire skills across a range of issues, encouraging transdisciplinary. Under Horizon Europe, **Marie Skłodowska-Curie Actions Doctoral Networks** offer training schemes to early-stage researchers within a specific theme, such as health, digital industry, or sustainability, rather than a set discipline.

To support academic career paths, the **European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Charter & Code)**, adopted through a Commission Recommendation in 2005, and its implementing mechanism **Human Resources Strategy for Researchers (HRS4R)**, contributed towards the strengthening of the ERA and to the development of an attractive, open, and sustainable European labour market for researchers.

In addition, it is important to develop initiatives for evaluating, auditing, and identifying gaps in researchers' personal and professional career development. To respond to this necessity, and in line with the 2020 new ERA Communication and the Skills Agenda, the Commission is finalising, in consultation with stakeholders and with the coaching of the Joint Research Centre, **ResearchComp – the European Competence Framework for Researchers**.

Lifelong learning for academic staff members is supported by the **Erasmus+ staff mobilities**, that sent over 370,000 staff members of European HEIs abroad between 2014 and 2020.

¹⁷² <https://www.regionalskills.ie>

¹⁷³ <https://www.vr.se/english/just-now/news/news-archive/2021-01-15-new-initiatives-in-the-governments-research-bill-that-relate-to-the-swedish-research-council.html>

¹⁷⁴ <https://op.europa.eu/en/publication-detail/-/publication/e9a18042-bdce-11eb-8aca-01aa75ed71a1/language-en>

EURAXESS¹⁷⁵ provides valuable support to overcome obstacles faced by researchers when moving abroad, and by non-European researchers when moving to Europe.

4.4. Developments needed to further the quality and relevance

Innovation

There is considerable potential for EU action to reinforce the value and the importance of **open and social innovation**. An **open innovation model** can enrich partnerships between HEIs, businesses, and citizens, encouraging large businesses to cooperate with dynamic smaller ones.

It is crucial to improve the translation of R&I results into the economy. This can be achieved by strengthening the innovation ecosystems for knowledge circulation and valorisation by **establishing stronger interconnection between existing collaborative and supportive structures engaging a diversity of stakeholders in multi-disciplinary and cross-sectorial collaborations**. European Commission, in close collaboration with The European Committee of the Regions, the member states and stakeholders, will conceptualise, pilot and launch the **ERA Hubs**¹⁷⁶. This initiative will build on the existing capacities, such as the Digital Innovation Hubs and clusters, and links to the Enterprise Europe Network and StartUpEurope, to provide an interconnected knowledge space. ERA Hubs will facilitate collaboration and exchange of best practices, with the incentive to maximise the value of knowledge production, circulation and use.

Stakeholders emphasise the need to **foster synergies and cohesion between existing and emerging instruments at the EU, regional and national levels**. More knowledge and trans-European networks and dedicated platforms can be decisive in identifying capabilities and connecting key actors. The alignment of EU programmes should be done both at the level of policy priorities and programme objectives, and at the level of funding rules and implementation modalities.¹⁷⁷ Providing structures and opportunities for more links between higher education and the European Innovation Council, and with national research councils, would be beneficial.

Industry-university cooperation

Meeting many of the economic and social challenges of the future will require fundamental improvements in our public services and the way we do things as well as new products and processes. Capitalising on the benefits of both social and technological innovation, while keeping on building on Europe's social, cultural and regional advantages and diversity, is key to underpinning European competitiveness. Developing **sustainable collaboration models** between HEIs and all stakeholders in their local ecosystem is seen as an important contributor to success, helping to close innovation gaps between different European regions.¹⁷⁸

Correspondingly, stakeholders need **strategic investment in education and training** to enable learners to attain high-level skills and expertise, including entrepreneurial skills.¹⁷⁹ Better integration of entrepreneurship training into all study programmes could address a broad range of entrepreneurial and transversal skills, including in interdisciplinary contexts. Such training would

¹⁷⁵ <https://euraxess.ec.europa.eu/>

¹⁷⁶ <https://cor.europa.eu/en/news/Pages/towards-full-recognition-Regional-Innovation-Hubs.aspx>

¹⁷⁷ <https://eua.eu/resources/publications/918:building-synergies-between-education,-research-and-innovation-by-aligning-the-eu-funding-programmes.html>

¹⁷⁸ <https://www.esu-online.org/?policy=esus-reaction-to-the-eu-council-conclusions-on-the-european-universities-lets-do-it-right-for-students-interest>

¹⁷⁹ <https://www.cesaer.org/content/5-operations/2020/20200420-position-european-education-area.pdf>

contribute to the development of innovative mindsets, bringing added value for a wide range of career paths. More investment is required also in investigation-driven frontier and application-oriented research. HEIs are in an ideal position to offer interdisciplinary, transdisciplinary and transversal skills to address challenges such as digital transformation or climate change.¹⁸⁰

It is important to **valorise engagement and innovation**. HEIs and their researchers have been incentivised and rewarded more according to research outputs, income generation, and collaboration internationally. This has been strengthened by international league tables/rankings which prioritise global excellence rather than research of national or regional significance. This undermines interdisciplinarity, regional engagement and the diversity of Europe's HEIs.

More attention should be placed on **recognising knowledge that makes an impact on society from across a wider spectrum of education and research activities** and takes advantage of open science to share outcomes and benefits. Regional engagement, and interdisciplinary teaching and research, should be given due regard in any reward and assessment system. Consultations with stakeholders recognised the need for basing assessment criteria on qualitative judgement for which peer-review is central, supported where needed by responsible use of quantitative indicators¹⁸¹. This would help to expand how merit is recognised and rewarded across disciplines, activities, and across the full career-span, and hence broaden academic career opportunities.

Staff careers

The pursuit of research excellence¹⁸² needs to be underpinned by a system where HEIs are seen as attractive employers, providing rewards and incentives, clear career paths and the opportunities for collaboration and mobility. Alongside this, HEIs need to be incentivised to provide outstanding research infrastructure and rationalisation of the R&I landscape in Member States to make the local R&I ecosystems more efficient and effective.

A comprehensive framework should further strengthen all the aspects related to research careers that have not been sufficiently addressed by the Charter and Code and other existing instruments, including due to their lack of binding effects. There is a need to **improve employment and working conditions for researchers in HEIs**, to promote the skilling of researchers with a lifelong learning perspective to align their skills and competences to the needs also of the sectors beyond academia, to foster intersectoral and interdisciplinary mobility and career diversification, to move towards a research assessment system more focused on quality and impact of research, than on the number of publications, and to close any gaps relating to gender.

Traditionally, HEIs and their researchers have been incentivised and rewarded according to research outputs and income generation and collaboration internationally rather than service to society. This approach has been strengthened by international league tables/rankings which prioritise global excellence rather than research of national or regional significance. More attention should be placed on **recognising and valuing knowledge that makes an impact on society from across a wider spectrum of education and research activities** and takes advantage of open science to share

¹⁸⁰ <https://eurotech-universities.eu/wp-content/uploads/2016/08/THE-FUTURE-OF-THE-EU-AS-AN-INCLUSIVE-AND-SUSTAINABLE-INNOVATIVE-ECONOMY.pdf>

¹⁸¹ European Commission scoping report (2021) "Towards a reform of the research assessment system" <https://data.europa.eu/doi/10.2777/707440>

¹⁸² <https://data.consilium.europa.eu/doc/document/ST-13701-2021-INIT/en/pdf>.

outcomes and benefits with society. Regional engagement, and interdisciplinary teaching and research, should be given due regard in any reward and assessment system.¹⁸³

All learners should be considered lifelong learners. Micro-credentials, alongside other formal, non-formal and informal learning opportunities, have an important role to play in recognising such learning.¹⁸⁴ They can be a driver of innovation providing flexible and inclusive learning opportunities for people entering or re-entering higher education, for continuous professional development (CPD), for people seeking re-skilling or up-skilling, and as a complement to traditional qualifications.¹⁸⁵ Mechanisms to recognise prior learning and to more specifically link learning to existing competencies, are also important. This requires on-going cooperation with regional stakeholders to ensure the relevance of the programmes.

However, innovative pedagogical approaches and lifelong learning remains strongly dependent on national institutional frameworks and qualification systems, where convergence remains slow. Thus, to meet the EU ambition, more work is required to spur pedagogical innovation and to ensure a common understanding, definition of standards and recognition of new qualifications, as well as ensuring that **EHEA tools** are appropriately applied.

Success stories of transnational projects showcasing the quality and relevance of European higher education

Funded through Erasmus+ and Horizon 2020, **EU-CONEXUS** is the European Universities Alliance for Smart Urban Coastal Sustainability¹⁸⁶. It is an alliance of six universities located in urban coastlines areas, and has the ambition to cover smart urban sustainable coastal development from a holistic point of view by using transdisciplinary approaches in education and research. It actively contributes to economic development and regional policy-making, and with socio-economic stakeholders, it has launched a Joint Master Programme in Marine Biotechnology.

Towards a European Framework for Community Engagement in Higher Education (TEFCE)¹⁸⁷ is an Erasmus+ Support for Policy Reform project. Ten partners range across universities, consultancies, local and governments, and stakeholder organisations. The objective of the TEFCE project is to develop innovative policy tools at the university, and European level for supporting, monitoring and assessing the community engagement of higher education institutions. It has developed an innovative toolbox on the community engagement of universities and has assessed tools to monitor and incentivise community engagement of universities at the European level.

Institutions for Knowledge Intensive Development: Economic and Regulatory Aspects in South-East Asian Transition Economies¹⁸⁸ is funded through the Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE) Action. Participants are from Estonia and Switzerland, with partners in Laos, Vietnam, and Cambodia. The project seeks to understand the causes and consequences of the differences in the evolution of knowledge intensity of economies. It is developing lasting excellence-oriented cooperation with South-East Asian universities, based on European academic values. Through inter-sectoral knowledge transfer, it contributes to social innovation through policy suggestions, and reassesses the role of institutions in transition processes.

¹⁸³ <https://www.vsnu.nl/recognitionandrewards/wp-content/uploads/2019/11/Position-paper-Room-for-everyone's-talent.pdf>

¹⁸⁴ <https://www.esu-online.org/?policy=esus-reaction-to-the-eu-council-conclusions-on-the-european-universities-lets-do-it-right-for-students-interest>

¹⁸⁵ https://ec.europa.eu/education/education-in-the-eu/european-education-area/a-european-approach-to-micro-credentials_en

¹⁸⁶ <https://www.eu-conexus.eu/en/>

¹⁸⁷ <https://www.tefce.eu/>

¹⁸⁸ <https://taltech.ee/en/ikid>

Structuration et Accompagnement de L'Entrepreneuriat Etudiant au Maghreb (SALEEM)¹⁸⁹ is funded by the Erasmus+ capacity building in higher education action. Partners in France, Belgium and Romania link to those in Morocco and Tunisia to foster student entrepreneurship. There are two specific objectives: 1. Accompany the Ministries of Higher Education of Tunisia and Morocco in setting up a national system on student entrepreneurship; 2. Strengthen the capacity of higher education institutions to support student entrepreneurs in four pilot cities, in partnership with employment agencies and economic actors.

Micro-credentials linked to the Bologna key commitments (MICROBOL)¹⁹⁰ is an Erasmus+ Key Action 3 project. The project supports ministries and stakeholders in exploring, within the Bologna Process, whether and how the existing Bologna tools can be used and be adapted to be applicable to micro-credentials. Based on the findings of these activities, a common European framework for micro-credentials, notably in the context of higher education, will be proposed in February 2022.

5. Diversity, inclusiveness, and gender equality

5.1. Key guiding principles in inclusiveness, diversity, and gender equality in European higher education

Social and economic equality is a value deeply engrained in European culture, being promulgated through European social welfare models. However, income inequality has been on the rise in most European countries. The most vulnerable groups have been young people, especially low-skilled youths, people with immigrant backgrounds, ethnic minorities, and families with children.¹⁹¹

Gender equality is a core European value enshrined in the Treaties, and in the European Pillar of Social Rights, but gender inequalities persist across the EU and have been reinforced by the COVID-19 pandemic.¹⁹² Such inequalities can hamper social cohesion. Higher education, and the entire education and training system, has a key role to play in overcoming inequalities, and enhancing social mobility and opportunity for everyone in Europe. To strengthen this role, it is crucial to ensure equal access to, and completion of, a quality higher education for all.

Europe prides itself that it has a highly accessible higher education system. In some EU Member States higher education tuition for first-cycle students continues to be free of charge.¹⁹³ However, Europe faces underrepresentation of disadvantaged groups in higher education. Ensuring that higher education is accessible to diverse student populations remains a key objective for the EU, as declared in the European Commission's **Communication on achieving the European Education Area by 2025**.¹⁹⁴ The EU action in higher education also fully adheres to the first Principle of the **European Pillar of Social Rights**.¹⁹⁵

EU action towards inclusiveness, diversity, and gender equality in European higher education is based on an inclusive excellence approach. The EU promotes a vision of excellence that is open,

¹⁸⁹ <https://www.projet-saleem.org/>

¹⁹⁰ <https://microcredentials.eu/>

¹⁹¹ <https://www.oecd.org/wise/Inequalities-in-Household-Wealth-and-Financial-Insecurity-of-Households-Policy-Brief-July-2021.pdf>

¹⁹² <https://eige.europa.eu/gender-equality-index/2021>

¹⁹³ https://eacea.ec.europa.eu/national-policies/eurydice/content/national-student-fee-and-support-systems-european-higher-education-202021_en

¹⁹⁴ COM(2020) 625 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625&qid=1634726045354>

¹⁹⁵ https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

fair, and spread across the regions, types of HEIs, and across the four missions¹⁹⁶ in a balanced way.¹⁹⁷ The European model of inclusive excellence is strongly articulated in the principle of **social dimension** as defined in the Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA (Rome Ministerial Communiqué 2020 Annex II).¹⁹⁸

Inclusive excellence: fair and balanced across regions, HEIs and their missions

The idea behind the principle of inclusive excellence is that EU funding for higher education should not be distributed to only a few institutions with strong research capabilities, but rather should support excellence in HEIs throughout Europe. Furthermore, the current understanding of a fair and balanced excellence is that excellence does not reside only in research, but that the EU should support and validate excellence and potential for impact in *any* HEI, and any core mission. The EU's approach is distinct compared to other parts of the world where market-led competition has resulted in strong hierarchies of HEIs. The principle of inclusive excellence is rooted in the European values, and it is aligned with the EU's commitment to social and regional cohesion.

Within the European approach, excellence is sought across all higher education core missions – learning and teaching, research and innovation, knowledge utilisation and diffusion, engagement and service to society, and institutional governance and management. This recognises that all (types) of HEIs can have activities of international excellence or have a potential for significant social impact that is worth supporting. The European model offers every HEI the opportunity to develop excellence in their most competitive fields or in those areas with most potential for societal impact. It incentivises HEIs to build excellence in areas which they deem important, be that in global competition for knowledge, addressing societal challenges (such as SDGs), and/or meeting the specific needs of the local communities or regions in which these institutions are embedded, and where they provide support and purpose.

The European model has intrinsic value for Europe's global competitiveness. Strengthened excellence, social fairness, more equitable development across the European higher education system also raises the global competitiveness of European higher education. Maximising the overall capacity and capability of Europe's diverse HEIs through **fair and balanced excellence and transnational cooperation**, such as European Universities and other alliances¹⁹⁹, strengthens Europe's role internationally. Europe can therefore further strengthen its global competitiveness when transnational cooperation involves different types of HEIs conjoining different aspects of excellence and experiences, to create multiple layers of deep collaboration.

Inclusive excellence: the link to the social dimension in higher education

Inclusive excellence is about providing additional targeted support to under-represented and under-served communities from across Europe to ensure their effective equal access to excellent education, and equal chance of achievement in higher education. Creating an inclusive environment in higher education that fosters equity and diversity, and is responsive to the needs of local communities, the “**social dimension in higher education**” (as defined in the Principles

¹⁹⁶ This relates to principles as initially defined in the policy paper by the German, French, and Polish Rectors' Conferences: https://www.hrk.de/fileadmin/redaktion/hrk/02-Dokumente/02-05-Forschung/CPU-HRK-KRASP_Living_Up_to_the_Significance_of_Universities_CZ_SVN_SVK.pdf

¹⁹⁶ http://www.ehea.info/Upload/Rome_Ministerial_Communique_Annex_II.pdf

¹⁹⁷ https://www.hrk.de/fileadmin/redaktion/hrk/02-Dokumente/02-05-Forschung/CPU-HRK-KRASP_Living_Up_to_the_Significance_of_Universities_CZ_SVN_SVK.pdf

¹⁹⁸ http://www.ehea.info/Upload/Rome_Ministerial_Communique_Annex_II.pdf

¹⁹⁹ https://ec.europa.eu/education/education-in-the-eu/european-education-area/european-universities-initiative_en

and Guidelines to Strengthen Social Dimension of Higher Education in the EHEA²⁰⁰) is one of the key commitments in EU's policies on higher education. EU action in higher education seeks to support excellent higher education while ensuring equity of access, participation, and successful completion, with a special focus on learners from underrepresented, disadvantaged, discriminated and marginalised communities.

The EU provides support measures which enable students with different needs and circumstances to access, participate in and complete higher education. This includes flexible learning pathways, recognition of prior learning, counselling, guidance and support to transition from schooling to higher education, inclusive learning environments, digitalisation, and access to international mobility programs. In this regard, EU action is aligned with the vision of a **socially inclusive** European Higher Education Area.

Digital transitions that ensure inclusive access to skills, equipment and digital infrastructure **offer new opportunities** not only for access to higher education, but also for access to transnational cooperation and mobility, for learners, academics and researchers that might have fewer opportunities due to their social circumstances, thus helping to encourage diversity and help to overcome disadvantage and geographic disparities.

5.2. Further improvements needed on inclusiveness, diversity, and gender equality

It is through the **diversity of European HEIs**, their many purposes, disciplinary orientations, and approaches that together we can address complex societal challenges. Collectively HEIs can fulfil societal expectations and cater for the diverse needs and expectations of students. However, in some Member States, higher VET institutions, i.e. those providing VET at levels 5-8 of the European Qualification Framework (EQF) are perceived as less prestigious than research universities. Such status differentiation drives cultural and social misperceptions about the value and importance of VET. In the eyes of some, they can diminish the worth of these career pathways.²⁰¹ However, higher VET is key to equip workers with the advanced vocational skills needed to address the digital and green transitions as well as for the recovery and better resilience in a socially fair post COVID-19 context. In general, the COVID-19 pandemic has reminded us that we need people working in all kinds of employment, such as in manufacturing and technical fields, hospitals and healthcare centres, retail and software, building design and planning, logistics.

VET is a vital part of a multi-faceted higher education system. It can support innovation by raising the overall productive capacity, and increasing growth in both high-tech and lower-tech industries.²⁰² Because economies require a diversity of occupations, higher education must provide learners with a range of flexible and interconnected learning pathways and formats with access into employment and/or into education and training throughout their lives, and collaborate with vocational education and training institutions to provide opportunities for individuals to upskill and reskill themselves.^{203 204}

²⁰⁰ http://www.ehea.info/Upload/Rome_Ministerial_Communique_Annex_II.pdf

²⁰¹ Goodhart, D. (2020) *Head, Hand, Heart: Why Intelligence is Over-Rewarded, Manual Workers Matter and Caregivers Deserve More Respect*. New York, London, Toronto, Sydney, New Delhi: Free Press.

²⁰² <https://publications.jrc.ec.europa.eu/repository/handle/JRC118229>

²⁰³ Ibid.

²⁰⁴ Note in this context also the [educational toolkits](https://op.europa.eu/en/publication-detail/-/publication/6b595f96-3087-11ec-bd8e-01aa75ed71a1/language-en) to help fight gender stereotypes based on examples from the transport sector (<https://op.europa.eu/en/publication-detail/-/publication/6b595f96-3087-11ec-bd8e-01aa75ed71a1/language-en>)

Higher VET can open up new doors for learners who can build on their previous studies and/or non-formally and informally acquired skills and competences. By providing pathways for VET graduates to higher education, higher VET contributes to more diversity among higher education learners. For example, indicative data show that qualifications at EQF level 5 – the so-called short-cycle programmes – are particularly attractive to learners with a VET background and those already in employment²⁰⁵.

Many Member States have strong and respected systems of vocational education and training, successfully providing people with the knowledge, know-how, skills, and competences required for a rapidly changing labour market. Their HEIs have strong traditions offering education and training, often blending in-classroom learning with experiential learning in the workplace, and at EQF-level 5 or above. Yet, too often, public investment and resources in these institutions is significantly less than in research HEIs.²⁰⁶

It is therefore imperative that Member States allocate resources to develop an inclusive higher education system in which a diversity of HEIs flourish, and can individually and collectively offer flexibility and choice to learners and all other higher education stakeholders.

Fostering a diversity of learners that reflects the diversity of European societies, and helps equity and inclusion is promoted in the European Pillar of Social Rights. Yet, across European higher education, many societal groups are under-represented among academic staff, students, and researchers. Participation in higher education continues to be unequal from a social background perspective, leading to the stratification of opportunity. This goes against the basic human rights principles of equity and inclusion, and is a waste of talent.

Students born to **parents with a low level of educational attainment, the so-called “first generation students”**, are under-represented in all EU countries, and their trajectories into and through higher education often differ from students whose parents attained tertiary education degrees. A 2021 EUROSTUDENT report²⁰⁷ highlights that parental education and financial background of students play a key role in shaping their study experience and living. Students without tertiary educated parents are underrepresented in almost all 25 EUROSTUDENT countries. Fewer students whose parents did not attain a tertiary degree are enrolled in HE compared to the rest of the population. First generation student pathways into higher education are on average through later entry, and more often via alternative access routes. These students are more often enrolled in HEIs other than universities than in universities. Moreover, participation in study periods abroad is lower among first generation students.

Alongside their studies, students without tertiary educated parents are more likely to have a paid job during the teaching and learning period, and rely on public support or their own income to a greater extent. Their parents are financially less well-off than those of students whose parents have a tertiary education background. The financial difficulties of students are clearly related to parental financial status, and almost every second student whose parents are not well-off indicated that they would be able to cover an unexpected expense requiring 60% of the national median monthly

²⁰⁵ <https://www.cedefop.europa.eu/en/publications/6123#group-downloads>

²⁰⁶ <https://ec.europa.eu/eurostat/databrowser/bookmark/593f091b-d688-41a5-856d-495b1d68dabc?lang=en&page=time:2018>

²⁰⁷ https://www.eurostudent.eu/download_files/documents/EUROSTUDENT_VII_Synopsis_of_Indicators.pdf

income (e.g., to replace a laptop), while only 10% of students with very well-off parents would not be able to afford the expense.²⁰⁸

Migrants and students with migrant parents are less likely to succeed in higher education than native students. Disparities are particularly significant in southern European countries where participation rates are twice as high for native-born as opposed to foreign-born students.²⁰⁹ According to EUROSTUDENT VII, compared to the general population, students from the second generation of migrants (with at least one parent born abroad) are underrepresented in many countries, particularly students with two foreign-born parents.²¹⁰

HE systems are also not adapting sufficiently to meet the needs of **students with physical and mental impairments**. The EUROSTUDENT VII report notes that the proportion of students that indicated feeling out of place in higher education is higher among students with an impairment than among their peers without.²¹¹

While the number of **mature students** has increased in recent years, there are increasing societal challenges with a fast-changing labour market and technological changes. HEIs need to continue diversifying, and to continue showing flexibility in terms of access through **prior non-formal and informal learning**. Currently systems for recognising informal and non-formal learning are uneven, with Belgium (Flemish Community), Denmark, Finland, the Netherlands, and Romania having well-developed procedures in place.²¹²

While the overall percentages of women and men studying in **higher education** have stabilised in recent years at around 54% female and 46% male²¹³, there persist notable **gender imbalances** in some discipline areas. Education, health and welfare and arts and humanities are fields of study that are strongly female dominated, varying at between 65% and 80% female participation.²¹⁴ In information and communication studies and engineering, manufacturing, and construction the inverse picture exists, with males comprising between 67% and 82% of students. If this imbalance remains, this will perpetuate problems for the labour market and society.

Another gender imbalance **concerns participation in academic professions**. Gender balance in Europe clearly decreases with seniority: women occupy 26% of top academic positions, but only 18% in engineering and technology. Among Heads of HEIs, women hold slightly below 24% of these positions in EU27,²¹⁵ and only about 14% of rectors are female.²¹⁶

²⁰⁸ https://www.eurostudent.eu/download_files/documents/EUROSTUDENT_VII_Synopsis_of_Indicators.pdf

²⁰⁹ https://eacea.ec.europa.eu/national-policies/eurydice/content/european-higher-education-area-2020-bologna-process-implementation-report_en
p.107

²¹⁰ https://www.eurostudent.eu/download_files/documents/EUROSTUDENT_VII_Synopsis_of_Indicators.pdf

²¹¹ *ibid*

²¹² https://eacea.ec.europa.eu/national-policies/eurydice/content/european-higher-education-area-2020-bologna-process-implementation-report_en
p.118

²¹³ *ibid* p.103

²¹⁴ *ibid* p.104

²¹⁵ <https://op.europa.eu/s/tflN>

²¹⁶

https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institutions.pdf

Difficulties are also experienced by academic staff from different ethnic or racial backgrounds. For example, a survey in Ireland found that much more needs to be done to address ethnicity discrimination and inequality with regards to salary, promotion, and other career opportunities.²¹⁷

According to the NESET “under-represented, vulnerable and disadvantaged groups were disproportionately affected by **the impact of COVID-19 on higher education**, in terms of perceived learning losses, financial concerns and lower levels of mental health and well-being”.²¹⁸ In turn, **students with lower levels of mental health and well-being face a greater risk of drop-out**.²¹⁹ The effects of COVID-19 on deteriorating educational equality in pre-tertiary education are also likely to have a direct effect on lowering the level of participation of disadvantaged groups in higher education.²²⁰

The NESET report also pointed out the challenge facing international student mobility in the medium term (up till 2025) both in terms of how HEIs will cope with decreasing enrolments of international students and how they will support those who have decided to enrol in virtual mobility or blended mobility programmes.²²¹ Supporting higher education in designing online and blended provision, and equipping teachers and students with digital skills for quality online teaching and learning, have been highlighted as major issues that needs to be addressed promptly.²²²

Policies implemented by HEIs to address inclusiveness, diversity and gender equality are relatively broad, and include measures particularly addressing disability and gender. Age and religious diversity play a minor role.²²³ State policies, however, are often narrower in scope, focusing on supporting access and attainment of prospective students based on their socio-economic and educational backgrounds.²²⁴ **Comprehensive state policies tend to be lacking, especially ones that adopt an intersectional approach: Only a small number of EU countries**²²⁵ have coherent strategies to foster social inclusion in higher education,²²⁶ and HEIs tend to be left to themselves to deal with inclusion and diversity. The situation is slightly different with gender equality, as an increasing number of Member States have developed policies promoting gender equality in higher education and research organisations, in the context of the European Research Area (ERA).²²⁷

Quantitative targets for the inclusion of disadvantaged groups in higher education at state-level are not wide-spread. Although a majority of EU countries have some targets related to widening participation in higher education, most objectives do not focus on specific under-represented groups, but are about widening overall participation.²²⁸ Overall, about one in five of

²¹⁷ <https://hea.ie/assets/uploads/2021/10/HEA-Race-Equality-in-the-Higher-Education-Sector-Analysis-commissioned-by-the-Higher-Education-Authority-1.pdf>

²¹⁸ https://nesetweb.eu/wp-content/uploads/2021/03/NESET-AR4-2020_Full-Report-1.pdf

²¹⁹ Ibid.

²²⁰ Ibid.

²²¹ Ibid.

²²² Ibid.

²²³ <https://www.cesaer.org/content/5-operations/2019/20190906-white-paper-equality-final.pdf>

²²⁴ https://eacea.ec.europa.eu/national-policies/eurydice/sites/default/files/bologna_internet_chapter_5_1.pdf

²²⁵ These include Austria, Ireland, the Netherlands, Sweden, and Croatia.

²²⁶

https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institution.s.pdf; <https://publications.jrc.ec.europa.eu/repository/handle/JRC117257>

²²⁷ https://genderaction.eu/wp-content/uploads/2020/03/D3.2_MonitoringERApriority4implementation.pdf

²²⁸ Countries that do set specific targets include Austria, the Czech Republic, and France: https://eacea.ec.europa.eu/national-policies/eurydice/sites/default/files/bologna_internet_chapter_5_1.pdf

surveyed HEIs have declared that quotas either for students (20%) or staff with diverse backgrounds (18%) are a driver of institutional engagement in equity, diversity and inclusion topics.²²⁹

HEIs are much more likely to set internal voluntary targets for diversity and inclusion, while shares of students and staff from underrepresented or disadvantaged backgrounds are top indicators of the impact of diversity and inclusion policies.²³⁰ The Joint Research Centre (JRC) confirms the above observation of the EU Member States’ policies for social inclusion in higher education.²³¹ The ET 2020 Working Group on higher education²³² also noted that “governments do not clearly define strategies to promote inclusion, nor do they establish concrete targets to enrol and support students from underrepresented and disadvantaged groups”. Other issues were identified. Only some of the underprivileged and underrepresented groups relevant in a regional or national context are targeted. Inclusion objectives may be implemented in a specific part of the higher education system, without including the most prestigious HEIs. There are inadequate resources dedicated to supporting students from underrepresented and disadvantaged groups to complete their studies and enter the labour market.

One of the obstacles to providing high-quality evidence is **the difficulty in tracking the information on the participation of under-represented groups**.²³³ While sex and/or gender disaggregated data collection among both the student population and staff is common practice in most Member States and HEIs, data collection on aspects such as ethnicity or migration background is a sensitive issue (or even forbidden in law, as in France).²³⁴ Institutions are often reluctant to gather such data – even though basic data on gender or age of students and staff is available to most, few HEIs systematically collect data such as ethnic, migration and religious background or sexual identity (Figure 5.1).

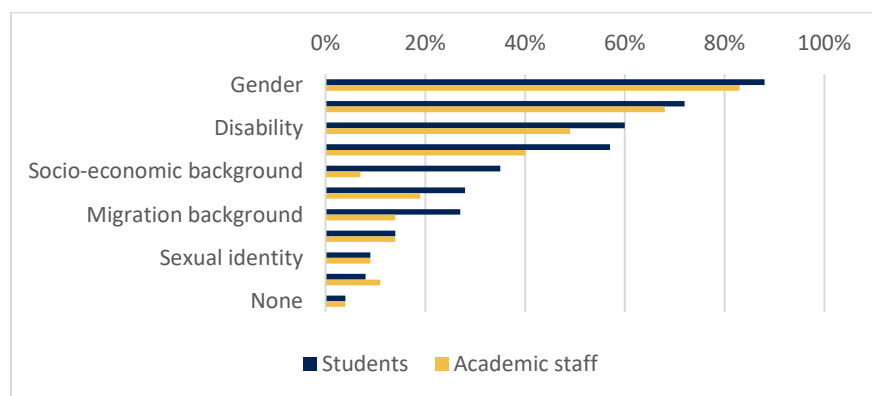


Figure 5.1 Data collected by higher education institutions. Source: EUA²³⁵

²²⁹

https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institutions.pdf

²³⁰ *ibid*

²³¹ <https://publications.jrc.ec.europa.eu/repository/handle/JRC117257>

²³² http://w3.ese.ipsantarem.pt/literaciadigital/wp-content/uploads/2020/04/PLA-Social-Inclusion_Policy-Conclusions-1.pdf

²³³ https://eacea.ec.europa.eu/national-policies/eurydice/sites/default/files/bologna_internet_chapter_5_1.pdf

²³⁴ https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institutions.pdf

²³⁵ *ibid*

5.3. What has been achieved so far at the EU level?

Equal opportunities, diversity, and gender equality are at the heart of EU policy development.

The **European Council Conclusions of 14 December 2017**²³⁶ noted that education is one of the keys to building inclusive and cohesive societies. The **Communication of 30 September 2020 on achieving the European Education Area by 2025**²³⁷ defines inclusion and gender equality as key objectives to ensure that **higher education** is accessible to diverse student populations and reduced gender gaps; objectives made more challenging by the impact of the global health pandemic.

The **European Pillar of Social Rights**²³⁸ has four underlying principles: 1) Education, training, and life-long learning, 2) Gender equality, 3) Equal opportunities, and 4) Active support to employment. The reinforced **Youth Guarantee**²³⁹ affirms a commitment by all Member States to ensure that all young people under the age of 30 receive a good quality offer of employment, continued education, apprenticeship, or traineeship within four months of becoming unemployed or leaving education.^{240 241}

The **European Skills Agenda**²⁴² includes 12 actions to help that people have the optimal skills for jobs and to support people in their lifelong learning pathways. Among the Agenda's actions are a Proposal for a Council Recommendation on vocational education and training (VET) (Action 4), rolling out the European Universities Initiative and upskilling scientists (Action 5), and a European approach to micro-credentials (Action 10). The European Skills Agenda affirms the complimentary contribution of the diversity of the European HEIs. Some HEIs focus on vocational education and professional training, while others advance academic skills and research excellence, with an aim of building sustainable competitiveness as set out in the European Green Deal, ensuring social fairness, as in the European Pillar of Social Rights, and building resilience, including helping all Europeans to acquire at least basic digital skills.

Yearly issues of the **Education and Training Monitor**²⁴³ have included annual updates of a range of EU policy measures designed to improve equal opportunities and diversity in higher education, including quantitative targets for widening participation and/or attainment of under-represented groups and performance-based funding mechanisms with a social dimension focus.

The **Council Recommendation on vocational education and training for sustainable competitiveness, social fairness and resilience**²⁴⁴ recommends that Member States further develop vocational education and training programmes at EQF levels 5 to 8 to support a growing need for higher vocational skills in line with national context. The **Osnabrück Declaration**²⁴⁵, adopted in 2020, emphasises the relevance of VET at higher levels on a par with higher education.

²³⁶ CO EUR 24 CONCL 7 <https://www.consilium.europa.eu/media/32204/14-final-conclusions-rev1-en.pdf>

²³⁷ COM(2020) 625 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625>

²³⁸ https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

²³⁹ 2020/C

372/01

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_.2020.372.01.0001.01.ENG&toc=OJ%3AC%3A2020%3A372%3ATOC

²⁴⁰ <https://ec.europa.eu/social/main.jsp?catId=1079&langId=en>

²⁴¹ COM(2020) 276 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1594047420340&uri=CELEX%3A52020DC0276>

²⁴² <https://ec.europa.eu/social/main.jsp?catId=1223&langId=en>

²⁴³ <https://op.europa.eu/webpub/eac/education-and-training-monitor-2020/en/>

²⁴⁴ COM(2020) 417 final [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020H1202\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020H1202(01)&from=EN)

²⁴⁵ https://www.cedefop.europa.eu/files/osnabrueck_declaration_eu2020.pdf

One of the short term actions to be achieved at national level by 2025 is to support Vocational Excellence and improve permeability between vocational and academic pathways.

Attention to gender equality in higher education and research is also a longstanding commitment of the EU. The **Gender Equality Strategy 2020-2025** highlights the key role that the **Erasmus+** and **Horizon Europe** programmes are playing in supporting gender equality. The **2021–2027 Erasmus+ Inclusion & Diversity Strategy**²⁴⁶ provides guidance on how the programme can help address gender inequalities in the education and training, youth, and sport sectors. **Horizon Europe** introduced strengthened provisions and requirements for gender equality, including a requirement that all HEIs have in place a gender equality plan²⁴⁷ (GEP) as a condition for receiving funding.

The **Communication of 30 September 2020 on a new ERA for Research and Innovation**²⁴⁸, sets gender equality and inclusiveness as key priorities for deepening the ERA and proposes as an umbrella action the development of inclusive GEPs, with Member States and stakeholders. This approach is supported by Member States in the **Council Conclusions of 1 December 2020 on the New ERA**²⁴⁹, and the **Council Conclusions of 28 May 2021 on research careers**²⁵⁰. Among the stakeholders, the European Students Union (ESU) has campaigned for greater policy focus on measures to promote equality and diversity in higher education. In its 2019 policy paper on the social dimension, prioritising the social dimension is seen as an essential step towards creating a “society that is equal, intelligent, diverse, safe, prosperous and sustainable”.²⁵¹ A persistent culture of inclusion must exist in policy-making processes, following principles of representation and dialogue and student representation in decision-making.

Different EU equality strategies and inclusion frameworks adopted in 2020-2021 also have a strong education or higher education dimension and are worth mentioning here: the EU anti-racism action plan 2020-2025 (2020 September)²⁵²; the EU Roma strategic framework for equality, inclusion and participation 2020-2030 (2020 October – March 2021: Council adoption of Council Recommendation)²⁵³; the LGBTIQ equality strategy 2020-2025 (2020 November)²⁵⁴; the Strategy on the rights of persons with disabilities 2021-2030 (March 2021)²⁵⁵; the Action plan on integration and inclusion 2021-2027 (2020 November)²⁵⁶; the EU strategy on combatting antisemitism and fostering Jewish life 2021-2030(October 2021).²⁵⁷

The European University Association (EUA) considers inclusiveness to be a strategic question for HEIs²⁵⁸, impacting learning and teaching, research, and institutional cultures. The EUA is working to ensure that HEIs across Europe have a platform to share their approaches and strategies. The EUA fosters peer-learning activities and supports members in embedding diversity, equity, and inclusiveness across all activities. It also focuses on this topic through the “Higher Education

²⁴⁶ <https://erasmus-plus.ec.europa.eu/programme-guide/part-a/priorities-of-the-erasmus-programme>

²⁴⁷ <https://op.europa.eu/en/publication-detail/-/publication/ffc06c3-200a-11ec-bd8e-01aa75ed71a1>

²⁴⁸ COM(2020) 628 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A628%3AFIN>

²⁴⁹ RECH 483 COMPET 611 <https://data.consilium.europa.eu/doc/document/ST-13567-2020-INIT/en/pdf>

²⁵⁰ RECH 267 COMPET 424 EDUC 215 SOC 352 EMPL 261 <https://www.consilium.europa.eu/media/49980/st09138-en21.pdf>

²⁵¹ <https://www.esu-online.org/wp-content/uploads/2020/01/Social-Dimension-Policy-Paper-2019.pdf>

²⁵² [EUR-Lex - 52020DC0565 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu)

²⁵³ [EUR-Lex - 52020DC0620 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu)

²⁵⁴ [EUR-Lex - 52020DC0698 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu)

²⁵⁵ <https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8376&furtherPubs=yes>

²⁵⁶ [EUR-Lex - 52020DC0758 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu)

²⁵⁷ [EUR-Lex - 52021DC0615 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu)

²⁵⁸ See also <https://www.leru.org/publications/equality-diversity-and-inclusion-at-universities>

Supporting Refugees in Europe” project and the “Refugees Welcome Map”. EUA is also active in monitoring gender equality, especially in university leadership.

In its statement for the European Higher Education Area ministers,²⁵⁹ EURASHE called for the recognition of a greater diversity of institutional missions and provisions that would allow higher education to accommodate a growing variety of learners of differing ages, social groups, experience, and qualification levels. Through such diversity, research and innovation projects can be fostered within innovation ecosystems as well as in strategic partnerships. EURASHE also highlighted the importance of accessible online learning and the equipment of teachers with digital competences to deliver quality online education as a means to close existing socio-economic gaps

5.4. What is needed to foster inclusiveness, diversity, and gender equality in HEIs

To support inclusiveness, diversity, and gender equality through enhanced transnational cooperation, the EU ~~can~~ should create synergies between actions such as Erasmus+, Horizon Europe, Digital Europe, the Recovery and Resilience Facility, European Social Fund Plus (ESF+), the European Student Card Initiative, and InvestEU.

Support should be devoted to reinforcing capacities of individual HEIs to foster excellence and societal impact in their areas of strength, or areas of need of the local communities and regions in which they are embedded. Funding should also incentivise transnational cooperation between HEIs to pool expertise, creativity, resources, and energy to tackle complex challenges facing Europe and the world and to support Global Europe. Tackling global challenges, such as the SDGs, intrinsically require collaborative efforts.

Furthermore, the EU can support Member States and HEIs in strengthening practices towards diversity, inclusion, and gender equality in higher education, including the governance and management practices in HEIs. Using tools such as **the Erasmus Charter for Higher Education**²⁶⁰, the EU can incentivise HEIs to systematically foster equity, diversity, and inclusion. The EUA INVITED study²⁶¹ highlights inclusiveness as a strategic issue in HEIs as well at system level, and highlights main barriers. It is also important to look into which dimensions of diversity are recognised and determine how possible forms of discrimination or implicit bias are countered the best.²⁶²

The EU will support **flexible learning pathways**, including through recognition of prior learning and the **Council recommendation on a European approach to micro-credentials**. European **Quality Assurance for Vocational Education and Training**, and the **European Quality Assurance and Recognition System**, have an important role, as they too can reinforce the principles of equity, diversity, and inclusion in standards and guidelines for quality of higher education and vocational education and training. In addition, the Commission can continue to support Member States towards full implementation of the **Council Recommendation on promoting automatic mutual recognition of higher education and upper secondary education**

²⁵⁹ https://www.eurashe.eu/wp-content/uploads/2020/11/EURASHE-Statement_EHEA-Ministerial-Conference-Rome2020.pdf

²⁶⁰ <https://erasmus-plus.ec.europa.eu/resources-and-tools/erasmus-charter-for-higher-education>

²⁶¹

https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institution%20s.pdf

²⁶² <https://op.europa.eu/en/publication-detail/-/publication/4cce61a7-6736-11ea-b735-01aa75ed71a1/language-en> p.84

and training qualifications and the outcomes of learning periods abroad²⁶³, and with the development of transparent and coherent recognition processes.

As discussed in the NESET study on student-centred learning and teaching for inclusivity, the EU can support and incentivise development and implementation of **student-centred learning and teaching (SCLT) approaches** which contribute to **more inclusive education** both by better attending to the needs of the diverse student body and by improving access to higher education and to the most suitable learning experiences within higher education.²⁶⁴ Student-centred learning and teaching fosters inclusiveness through: inclusive curricula and pedagogy; flexible learning pathways and technology-enhanced learning; teaching and learning support; inclusive learning spaces and libraries; community engagement and partnerships.²⁶⁵ The **Council Recommendation of 22 May 2018 on promoting common values, inclusive education, and the European dimension of teaching**²⁶⁶ has laid the ground for further action in this direction.

The EU can support HEIs to build **partnerships with schools**, to improve guidance for choosing the right form of higher education and create outreach activities specifically for underrepresented groups. Partnerships between **HEIs and industry, the public sector and the non-profit sector** can create equal opportunities for underrepresented, disadvantaged, or vulnerable students, support and mentor them, and prevent discrimination or bias. European actions should foster integration and empowerment of students from underrepresented and disadvantaged backgrounds rather than “over support” them which may deepen social divides, drive identity politics and reinforce a victimhood culture.²⁶⁷

Within the European Research Area, the **European Charter for Researchers**²⁶⁸, and the **Code of Conduct for the Recruitment of Researchers**²⁶⁹ need to be updated to better address gender inequality, fostering diversity of researchers, and offering mentorship and support to all researchers, and especially those from under-represented populations. Furthermore, addressing gender inequality imbalances, fostering diversity of researchers, and offering mentorship and support to all researchers must be reflected in the future European initiatives on **academic careers**.

There is a strong need for increased synergies between the European Education Area, the European framework for attractive and sustainable careers within and beyond academia, and the new European Research Area, the Pact for Research and Innovation in Europe and the related ERA policy agenda, on the development of institutional change through inclusive gender equality plans in universities. Plans should particularly address equal opportunities in recruitment and career progression, gender balance in decision-making positions, integration of the gender dimension into research and innovation content and curricula, as well as gender-based violence including sexual harassment in academia, paying attention to intersectionality between gender and other diversity categories, and grounds for discrimination such as ethnicity, disability or sexual orientation.

²⁶³ 2018/C 444/01 [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32018H1210\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32018H1210(01))

²⁶⁴ <https://op.europa.eu/en/publication-detail/-/publication/4cce61a7-6736-11ea-b735-01aa75ed71a1/language-en> pp.100-101

²⁶⁵ Ibid., p.82

²⁶⁶ 2018/C 195/01 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018H0607%2801%29>

²⁶⁷ <https://link.springer.com/book/10.1007/978-3-319-70329-9>

²⁶⁸ <https://euraxess.ec.europa.eu/jobs/charter/european-charter>

²⁶⁹ <https://euraxess.ec.europa.eu/jobs/charter/code>

In particular, Europe would benefit from European Universities Alliances adopting gender equality strategies at the Alliance level, complementing the requirement to have a gender equality plan at institutional level that has been introduced in Horizon Europe.

Access to reliable data related to diversity, inclusiveness and equality of opportunity to serve as evidence in policy making is a challenge which the EU could address **through integrating and reinforcing the current EU data tools**, such as especially Eurostudent,²⁷⁰ Eurograduate,²⁷¹ and ETER,²⁷² as well as U-Multirank,²⁷³ EQAR,²⁷⁴ Eurydice data on the Bologna implementation reports²⁷⁵ and the Mobility Scoreboard^{276,8} to enhance the use as evidence in policy making at Member States and EU level – as proposed by the introduction of a **Higher Education Observatory**.

Success stories of transnational projects fostering diversity, inclusiveness and gender equality

The European University of Post-Industrial Cities (UNIC)²⁷⁷ is an Erasmus+ and Horizon 2020 European Universities Alliance of eight universities located in post-industrial cities characterized by a “superdiversity” in terms of socio-economic and socio-cultural backgrounds of their populations and student bodies. UNIC has the ambition to ensure greater social inclusion by broadening educational opportunities for non-traditional students and pooling both the research and the learning and teaching of its partner universities in this area.

Women with Disabilities in Social Engagement (RISEWISE)²⁷⁸ is funded under the Horizon 2020 Marie Skłodowska-Curie Actions. Linking stakeholder and technology organisations with university researchers, the project focuses on women with disabilities, trying to identify needs and best practices in EU countries, representing different cultural and socio-economic environments, for the integration and improvement of their quality of life.

Peer Learning Activities and Resources for Social Inclusion in Mobility Programmes (PLAR-4-SIMP)²⁷⁹ is funded by Erasmus+. The project involves two peer-learning activities on social inclusion in mobility programmes to strengthen mutual learning and deepen the exchange of practices between EHEA countries in different implementation stages. It will equip policy officers of national authorities, HEI staff and student organisations across EHEA with knowledge, skills, and tools required to best organise inclusive student mobility in the 21st century, providing them with a multi-use “toolbox on inclusive mobility”.

Master's Degree in Women's and Gender Studies (GEMMA)²⁸⁰ is an Erasmus+ Erasmus Mundus Joint Masters Programme. It is taught by a consortium formed by seven prestigious European universities, thirteen associated American universities, and industrial partners from diverse multi-disciplinary and sectoral areas. GEMMA’s mission is to form much needed gender experts who will be able to contribute to greater equality between men and women, taking into account the intersections of ethnicity, race, class and sexuality and contributing to citizenship.

²⁷⁰ <https://www.eurostudent.eu/>

²⁷¹ <https://www.eurograduate.eu/>

²⁷² https://ec.europa.eu/education/european-tertiary-education-register_en

²⁷³ <https://www.umultirank.org/>

²⁷⁴ <https://www.eqar.eu/>

²⁷⁵ https://eacea.ec.europa.eu/national-policies/eurydice/content/european-higher-education-area-2020-bologna-process-implementation-report_en

²⁷⁶ <https://national-policies.eacea.ec.europa.eu/mobility-scoreboard/higher-education/scoreboard-indicators>

²⁷⁷ <https://www.unic.eu/en>

²⁷⁸ <http://www.risewiseproject.eu/>

²⁷⁹ <https://plar4simp.inclusivemobility.eu/>

²⁸⁰ <https://masteres.ugr.es/gemma/>

6. European democratic values

6.1. Higher education contributions to democracy

Europe has a long-established tradition of higher education. Medieval universities were the prototypes of our current higher education institutions (HEIs), and after the Renaissance they embraced the humanistic traditions of learning. In the 18th century they secularised during the Enlightenment, after which they nurtured research and innovation driving the Industrial Revolution. Since then, Europe has developed a strong and diverse higher education landscape.

Humanistic traditions of learning broadened the scholastic outlook, emphasised clarity of expression, language learning, and civic engagement. This model of education has emphasised learners' self-formation and the fulfilment of individual potential, cultivating their broader sense of civic responsibility and engagement in civic life. Through humanistic traditions of learning, HEIs have embraced the democratic mission to contribute to European open and democratic societies, based on the rights of citizens and the rule of law.

Confronting illiberal practices that threaten to undermine democratic societies in Europe is as important as ever, especially with the recent rise in populism and extremism, and perceived mistrust between people and politicians. The internet, and especially social media, has created possibilities for much faster and wider spread of misinformation, which risks fuelling populism and extremism among citizens. The so-called “post-truth” era is characterised by loss of trust in science, and the rise of misinformation and “fake news”.

HEIs have a vital role to play in protecting democratic values and making democracies in the EU more resilient. They can foster social innovation and research to address social challenges and transformations, and to engage with their local and regional innovation ecosystems. Through practices of democratic governance that enable stakeholder involvement, and by creating public service opportunities for students, HEIs can act as sites of citizenship and civic involvement. They also have a key role to play in preserving and advancing freethinking, critical inquiry, and civil discourse across intellectual disagreements.

As educators and producers of scientific knowledge, HEIs have a social responsibility to engage in public debate and to fact-check disinformation, making verified information easily accessible. Higher education needs not only to produce knowledge, but also to reassure citizens in the credibility and value of science and inform citizens of the rigorous scientific processes involved in the generation of knowledge. Citizens need to understand scientific methods to be able to evaluate information, distinguish between credible information and misinformation.

The 2021 Eurobarometer²⁸¹ on citizens' attitudes to science indicates that 86% of citizens think that the overall influence of science and technology is positive, and a range of technologies will have positive effects on the future. There is a high level of interest in science and technology (82%) and a desire of citizens to learn more about it in places like town halls, museums, and libraries (54%). Such occasions present opportunities for HEIs to develop trust and understanding of science in citizens, giving them the capacity to critically evaluate information.

As places of learning, HEIs can educate learners and society about the importance of the democratic process and of participating in it. They can help people make connections between learning that takes place inside the classroom and events taking place outside the classroom. They

²⁸¹ <https://europa.eu/eurobarometer/surveys/detail/2237>

can prepare students for active citizenship in democratic societies, by giving them tools to engage as citizens in a thoughtful and informed way.

There have been rising concerns about declining youth participation in voting and in political parties, and the need to better understand the transformation of young people's political engagements has been addressed.²⁸² Concerns point to declining interest in, and knowledge of, political processes, as well as low levels of trust in politicians and growing cynicism about democratic institutions.²⁸³ However, the data shows a more multifaceted situation – with young people having a very keen interest in issues which affect their lives and society. In fact, the 2017 Eurobarometer has indicated that young people's interest and engagement in democratic life had been growing since 2014.²⁸⁴ Compared to 2014 data, more young people voted in 2017 (48 to 64%²⁸⁵), and more were involved in organised voluntary activities (24% in 2011 to 31% in 2017²⁸⁶).

The 2017 Eurobarometer data also shows that young people mostly agree with the need to promote critical thinking and the ability to search for information to combat fake news and extremism (49%), and to promote behavioural change through environmentally friendly initiatives such as sustainable transport or recycling systems across Europe (40%). Furthermore, more than half of young Europeans consider education and skills as the top priority for the EU, followed by environmental protection and fighting climate change, employment, and the management of migratory flows and integration of refugees.

There is also evidence of the influence of (higher) education on expanding the interests of citizens, and their sensitivities to and knowledge of political, democratic, and civic issues.²⁸⁷ Furthermore, higher education is credited for the development of skills needed for active citizenship and civic engagement, building greater trust in institutions, interpersonal trust, and a tolerance of diversity.²⁸⁸ Results from the 2019 European Parliament elections shows people with higher levels of education are more likely to vote: “Although the turnout in 2019 was higher among all groups of the population, the increase was led by the younger generation, with large increases among people aged under 25 (+14 pp) and aged 25–39 (+12 pp). The cross-section of voters in 2019 appears to be more highly educated than in 2014, while the declared level of political interest has increased among both voters and abstainers”.²⁸⁹

6.2. Values inherent in European higher education

There is a strong link between the contribution of higher education to democracy and institutional autonomy, academic freedom, and democratic practices of learner and staff participation in higher education governance. In the 2020 Rome Ministerial Conference, the Statement on Academic Freedom affirmed that academic freedom and institutional autonomy are fundamental needs.²⁹⁰ Within the European Higher Education Area (EHEA), the democratic mission of higher education

²⁸² https://ec.europa.eu/assets/eac/youth/policy/documents/perception-behaviours_en.pdf

²⁸³ *ibid*

²⁸⁴ <https://europa.eu/eurobarometer/surveys/detail/2163>

²⁸⁵ *ibid*

²⁸⁶ *ibid*

²⁸⁷ For a recent review of literature, see: https://doi.org/10.1007/978-3-030-67245-4_23

²⁸⁸ *ibid*

²⁸⁹ <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2019/post-election-survey-2019-complete-results/report/en-post-election-survey-2019-report.pdf>

²⁹⁰ <https://rm.coe.int/bfug-annex-i-communique-statement-academic-freedom-19-11-2020/1680a07858> p.3

has been especially promoted and advanced by Council of Europe, one of the consultative members of EHEA.²⁹¹

The Statement on Academic Freedom emphasises “academic staff and students should participate meaningfully in decision-making processes and have the right to express their views on their institution’s policies and priorities without fear of reprisals”.²⁹² Democracy rests, in part, on how higher education teaches, investigates, reflects, and represents democratic values. Student and staff participation in higher education governance reinforces the democratic mission of higher education institutions and encourages civic involvement. It provides learners with opportunities to affirm their own citizenship or student political agency within HEIs.

It is in the inherent nature of HEIs to be places of freedom, be it freedom of speech, of thought, of learning, of research, or of academic freedom at large. Any form of oppression, of violation of the Fundamental Rights of the EU poses a direct threat to HEIs and the European way of life. Academic freedom, institutional autonomy and full participation of students and staff in governance represent the core values of European higher education.

Academic freedom

Academic freedom and freedom of scientific research are core principles of the EU. The Rome Ministerial Conference in 2020²⁹³ emphasised that “Academic freedom is an indispensable aspect of quality learning, teaching and research in higher education as well as of democracy. (...) the concept ensures that the academic community may engage in research, teaching, learning and communication in society without fear of reprisal”.²⁹⁴

Academic freedom is anchored in the Charter of Fundamental Rights of the EU²⁹⁵ and also in the Commission’s key political priorities (2019-2024)²⁹⁶, in the European research and education agendas, as highlighted in the European Research Area (ERA)²⁹⁷ and European Education Area (EEA)²⁹⁸ Communications (September 2020), the Bonn Declaration on Freedom of Scientific Research²⁹⁹ (October 2020), and the Rome Ministerial Communiqué³⁰⁰ (November 2020).

The 2020 **Bonn Declaration** establishes freedom of scientific research as a universal public good, and as part of the EU’s Fundamental Rights. It defines freedom of scientific research as: the right to carry out research and to disseminate and publish the results; to express their opinion without fear of reprisal from the institution or system in which they work or from governmental or institutional censorship; and, the freedom to associate in professional or representative academic bodies. Researchers should have freedom of physical mobility, to be able to interact with colleagues and to travel, while HEIs should have autonomy coupled with reliable and stable financing. The Bonn Declaration also warned about violations of freedom of scientific research. Positioning Europe as a guardian of democracy, equality, and the rule of law, the European Research Area aims to guarantee the safeguard of freedom of scientific research.

²⁹¹ <https://www.coe.int/en/web/higher-education-and-research/democratic-mission-of-higher-education>

²⁹² <https://rm.coe.int/bfug-annex-i-communique-statement-academic-freedom-19-11-2020/1680a07858> p. 4.

²⁹³ <https://rm.coe.int/rome-ministerial-communique-19-11-20/1680a07857>

²⁹⁴ <https://rm.coe.int/bfug-annex-i-communique-statement-academic-freedom-19-11-2020/1680a07858>

²⁹⁵ 2012/C 326/02 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012P%2FTEXT>

²⁹⁶ https://ec.europa.eu/info/strategy/priorities-2019-2024_en

²⁹⁷ COM(2020) 628 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A628%3AFIN>

²⁹⁸ COM(2020) 625 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625>

²⁹⁹ https://bmbf.bmbfcluster.de/files/DRP-EFR-Bonner_Erkl%C3%A4rung_EN_with%20signatures_M%C3%A4rz_2021.pdf

³⁰⁰ http://www.ehea.info/Upload/Rome_Ministerial_Communique.pdf

The Council Recommendation on a Pact for Research and Innovation in Europe³⁰¹ recommends that Member States apply the common set of values and principles for research and innovation in the Union. Values include ethics and integrity of research and innovation, gender equality and equal opportunities for all, and freedom of scientific research.

Finally, the *Magna Charta Universitatum* is a charter of academic freedom created by European Rectors in 1988. It promotes principles of academic freedom and institutional autonomy as guidelines for good governance and self-understanding of HEIs. Currently, it has 816 signatories from eighty-six countries supporting the idea that “intellectual and moral autonomy is the hallmark for any HEI and a precondition of its responsibilities to society”.³⁰² Similarly, the Council of Europe’s Charter on Education for Democratic Citizenship and Human Rights Education commits their member states to “...providing every person within their territory with the opportunity of education for democratic citizenship and human rights education”.³⁰³

The Academic Freedom Index has been developed collaboratively by the Global Public Policy Institute (GPPi), the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Scholars at Risk Network (SAR), and the V-Dem Institute. The index is based on five expert-coded indicators that capture key elements: (1) freedom to research and teach; (2) freedom of academic exchange and dissemination; (3) institutional autonomy; (4) campus integrity; and (5) freedom of academic and cultural expression. Its 2021 report³⁰⁴ notes that since the 1990s, Europe has been positioned as the region with the highest Freedom Index, surpassing the Americas and Oceania.³⁰⁵

Threats to academics

The global Scholars at Risk Network³⁰⁶ reports that although each individual scholar’s situation is unique, clear patterns have emerged since its founding in 2000. Based on over 20 years’ experience receiving requests for assistance from at-risk scholars, academics, researchers, doctoral students, institutional leaders, and other members of higher education communities, SAR identifies three broad categories of risk:

- Risk due to the content of a scholar’s work, research, or teaching being perceived as threatening by authorities or other groups. When the development of ideas, exchange of information, and expression of new opinions are considered threatening, individuals are particularly vulnerable.
- Risk because of the individual’s status. Because of their education, frequent travel, and professional standing, scholars are often prominent members of their community. Where a scholar is a member of a political, ethnic, or religious minority, female, or a member of LGBTQ+ communities, an attack on an individual scholar may be a highly visible and efficient means for intimidating and silencing others.
- Risk, resulting from the peaceful exercise of basic human rights, in particular the right to freedom of expression or freedom of association.

Researchers report threats by a range of state and non-state actors, including armed militant and extremist groups, police and military forces, government authorities, and members of their own

³⁰¹ https://ec.europa.eu/info/news/commission-adopts-proposal-pact-research-and-innovation-europe-2021-jul-16_en

³⁰² <http://www.magna-charta.org/magna-charta-universitatum>

³⁰³ <https://rm.coe.int/learning-to-live-together-council-of-europe-report-on-the-state-of-cit/1680727be5>

³⁰⁴ <https://www.gppi.net/2021/03/11/free-universities>

³⁰⁵ <https://www.v-dem.net/en/analysis/VariableGraph/>

³⁰⁶ <https://www.scholarsatrisk.org/>

higher education communities. Requests for assistance have also been received from HEIs facing ideological pressure and censorship, imposition of national ideology, ideological revisionism, closing of schools and HEIs, suppression of strikes and protests, restrictions on travel, restrictions on information exchange, and discriminatory restrictions on academic resources. These practices go against the values engrained in the European Union treaties and within European higher education.

As outlined in a mapping report³⁰⁷ published in October 2020 by EU-funded Inspireurope³⁰⁸, NGOs and support organisations arrange temporary positions for researchers at risk at HEIs, to enable them to continue their work safely. However, applications for assistance far exceed available funding for positions.

Projects funded by Erasmus+ and Horizon 2020 have supported collaboration between institutions and organisations in career development opportunities for researchers at risk, as well as mentoring, information, and advice (for example, through webinars, training, and guidance materials) and networking opportunities. European fellowship programmes (such as MSCA or European Research Council fellowships) and national fellowship programmes are open also to researchers at risk, even though they are not always widely accessible. More is needed, especially in those countries where support structures do not yet exist, or barely.

Foreign interference

Europe's Research and Innovation institutions have a strong record of internationalisation. This openness and collaboration contributed significantly to their success, but it also facilitated foreign interference as they are often insufficiently aware of potential threats and have not taken preventive measures. Since 2019, increased number of activities are observed that are carried out by, or on behalf of a foreign actor, which are coercive, covert, deceptive or corrupting and are contrary to the EU's sovereignty, values and interests.³⁰⁹

Foreign interference occurs when activities are carried out by, or on behalf of a foreign actor, which are coercive, covert, deceptive or corrupting and are contrary to the EU's sovereignty, values and interests. Foreign interference in the EU is a matter of concern for the EU, and the Commission has in recent years launched initiatives to counter foreign interference, including: Foreign Direct Investment (FDI) screening; a legislative proposal on foreign subsidies; the anti-coercive measures instrument, and the Communication on "on the Global Approach to Research and Innovation".³¹⁰

Institutional autonomy

There is some variation about what institutional autonomy means, and entails, across Europe.³¹¹ There are also differences in the "social contract" between higher education and society, understandings of public responsibility for higher education, and, accordingly, the level and type of control that the state should exert over higher education institutions. The core issue is the relationship between higher education institutions and the state and the appropriate balance between institutional autonomy and accountability to the public (for public funding obtained and

³⁰⁷ <https://eua.eu/resources/publications/947:researchers-at-risk-mapping-europe%E2%80%99s-response.html>

³⁰⁸ <https://www.maynoothuniversity.ie/sar-europe/inspireurope>

³⁰⁹ <https://s3.eu-central-1.amazonaws.com/euobs-media/3ef6dc3d60ee27a2df16f62d47e93fdc.pdf>

³¹⁰ COM(2021) 252 final/2 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2021:252:REV1&rid=2>

³¹¹ <https://link.springer.com/article/10.1007%2Fs10734-012-9578-4>

the public role higher education has in a society). Despite national differences, there are four dimensions to institutional autonomy:

- Organisational autonomy: determining the internal organization of the institution.
- Financial autonomy: control over the internal financial affairs, management, and salaries.
- Staffing autonomy: the freedom to recruit its staffs and its actions on admission.
- Academic autonomy: including programs, language of instruction and quality assurance.³¹²

These are measured through the EUA's University Autonomy Tool which enables comparison of HEI autonomy in 29 European higher education systems.

The EUA consistently argued that institutional autonomy is a precondition for modernisation.³¹³ A 2011 EUA report showed that although institutional autonomy of European HEIs has generally increased, several countries still grant their HEIs too little autonomy and thereby restrain their performance.³¹⁴ The EUA 2017 report notes that although some countries have achieved a relatively high degree of HEI autonomy in all or most of the four dimensions considered, no common approach to foster autonomy across Europe exists.³¹⁵ The report also reveals the absence of a universal view of HEI autonomy when designing and implementing reforms. Without doubt, the challenging economic context raised issues about institutional autonomy in different ways, including the introduction of stronger steering, governance, and funding mechanisms.

A joint statement by the EUA, the All European Academies (ALLEA), and Science Europe urges governments to protect institutional autonomy by providing regulatory frameworks and refraining from interference in the internal affairs of HEIs.³¹⁶ As stated in the EUA 2017 report, there remains "a frequent gap between formal autonomy – autonomy 'on paper' – and a university's actual ability to act independently."³¹⁷

Student and staff participation in higher education governance

The Ministerial Communiqués of the EHEA have repeatedly included **student and staff participation in higher education governance** as one of the fundamental values in the EHEA. Student and staff involvement in decision-making is associated with democracy, legitimacy, and efficiency of higher education decision processes.³¹⁸ The EHEA affirms a value of partnership, shared responsibilities, and collective commitments of all higher education stakeholders to higher education outcomes. It also offers students opportunities to develop civic mindedness and knowledge, skills and dispositions for citizenship and civic engagement.

Institutional governance changes in higher education have led to a shift from democratic principles of shared governance, towards more corporate models, unravelling the political power of staff and students vis-à-vis academic leaders and external stakeholders - albeit to a various extent in different institutional and national contexts.^{319 320}

³¹² <https://www.university-autonomy.eu/>

³¹³ <https://eua.eu/resources/publications/619:lisbon-declaration.html> p.2

³¹⁴ <https://eua.eu/component/publications/publications/79-report/401-university-autonomy-in-europe-ii-the-scorecard.html>

³¹⁵ <https://eua.eu/downloads/publications/university%20autonomy%20in%20europe%20iii%20the%20scorecard%202017.pdf>

³¹⁶ <https://www.eua.eu/downloads/content/academic%20freedom%20statement%20april%202019.pdf>

³¹⁷ <https://eua.eu/downloads/publications/university%20autonomy%20in%20europe%20iii%20the%20scorecard%202017.pdf> p.41

³¹⁸ <https://www.elgaronline.com/view/edcoll/9781785369742/9781785369742.00035.xml>

³¹⁹ <https://www.cambridge.org/core/books/convergence-and-diversity-in-the-governance-of-higher-education/93D96186E42D19AD1E0A13764AC942AE>

³²⁰ <https://brill.com/view/title/55003>

A Eurydice report on the academic profession notes a variation in the working conditions and career structures for academic staff, including their power in higher education governance.³²¹ The European Students' Union (ESU) has tracked student participation in higher education governance through studies such as "The Bologna Process through Student Eyes" (BWSE). Their 2020 report argues that "on paper, student participation seems well embedded in the EHEA; however, in practice the enactment is not unanimously celebrated by student representatives."³²² The report also notes that the financial autonomy of student unions as the representative associations of students is presented as a major challenge to their representative roles in higher education governance.

The active involvement of learners, academics, researchers, and professional staff is needed in higher education institutional governance structures and management practices for transnational alliances. The effectiveness of governance arrangements for deep and ambitious transnational cooperation depends on the diversity of ideas and insights, as well as a sense of shared responsibility for the success of the transnational cooperation from all key stakeholders.

6.3. What is needed to foster and protect academic freedom, institutional autonomy and fundamental rights

Fostering and protecting academic freedom, institutional autonomy, and fundamental rights within higher education is a major priority for the EU requiring close cooperation with the Member States, HEIs and stakeholder associations. Concrete actions involve the **creation of guiding principles on protecting fundamental academic values and addressing disinformation**, guiding all activities supported through EU actions.

Adhering to these core European values also means encouraging HEIs to reflect these values in their governance structures and management procedures. HEIs have to be motivated **to increase the involvement of learners, teachers, academics, researchers, and general staff in higher education governance, including the governance of transnational alliances**, while respecting the principles of equity, diversity, and inclusion. Furthermore, these values should be made a prerequisite for setting up common governance arrangements for deeper transnational cooperation.

HEIs should also be encouraged and supported to **develop their civil role and social responsibility** through cooperation with local and regional innovation ecosystems, engagement in social innovation and knowledge transfer, and setting up governance practices that foster regional engagements and emphasise regional cohesion and collaboration. Within their local ecosystems, HEIs can communicate on the rigor of scientific methods and research processes that generate knowledge and in this way **build public trust in the credibility and value of science**.

Developing action plans in support of freedom of scientific research is also needed. Scientific freedom should be incorporated into the **European framework for attractive and sustainable careers within and beyond academia** which will address developing flexible and attractive career structures and improve working conditions.

Support towards the development of action plans by HEIs **to tackle foreign interference is needed**. When using digital means in general and in transnational cooperation activities in particular, HEIs need to plan ahead to address risks of data security breaches and potential foreign

³²¹ https://eacea.ec.europa.eu/national-policies/eurydice/content/modernisation-higher-education-europe-academic-staff-%E2%80%93-2017_en

³²² https://www.esu-online.org/wp-content/uploads/2021/01/BWSE2020-Publication_WEB2.pdf

interference, and be capable to prevent, manage and respond to such actions. Europe's global approach to cooperation in research and innovation³²³ will develop and promote **guidelines on dealing with foreign interference** that targets EU R&I institutions. The guidelines aim to support R&I Institutions, including HEIs and research performing organisations, in their endeavour to protect their fundamental values by safeguarding academic freedom, integrity and institutional autonomy, and to protect their key research findings and intellectual assets. The approach is based on a positive agenda of partnership coupled with the constructive management of differences.

Fundamental values are included in the **Erasmus Charter for Higher Education** as a prerequisite to receive any Erasmus+ funding, and the **Erasmus Student Charter**, which presents the rights and responsibilities of Erasmus+ students while on mobility and integrates academic freedom and integrity. Implementation of both Charters will be monitored.

The EU will implement and monitor **the Pact for Research and Innovation in Europe and the Bonn Declaration for freedom of scientific research**. In particular, the EU will facilitate the development of a policy approach to safeguard the freedom of scientific research in Europe; support interested organisations in implementing the recommendations of the guidelines on foreign interference, and will provide a first European monitoring report on the freedom of scientific research.

Within the EHEA, the EU will promote **inclusion of fundamental values within the European Standards and Guidelines for Quality Assurance for Higher Education in Europe**. The EU will also support the implementation of the **Rome Ministerial Communiqué** which also refers to academic freedom and institutional autonomy.

Within the **Jean Monnet higher education networks**, the EU will support activities to foster academic debates on values and democracy, will identify best practices, and will protect and nurture academic values with partners outside Europe. Research on academic values and democracy within the EU is also supported also through Horizon Europe, including through the Marie Skłodowska Curie actions, the EIT's Knowledge and Innovation Communities, and European Research Council grants.

Success stories of transnational projects promoting European democratic values

Circle U! is an Erasmus+ and Horizon 2020 European Universities Alliance. One of its knowledge hubs³²⁴ focuses on democracy. It will be a physical and virtual space where students and staff co-create knowledge and solutions across disciplines and borders with external stakeholders and find new ways of working together. They examine the alarming trends in parts of Europe and elsewhere where democratic values are undermined, and develop strategies to strengthen democracy and civic engagement.

ACT-WB - Active Citizenship – Western Balkans³²⁵ is an Erasmus+ Jean Monnet project. It brings together partners from Austria, Bosnia-Herzegovina, Italy, the Republic of North Macedonia and Serbia, to explore innovative democratic practices. The project focuses on investigating the interaction between democratic innovations promoted in the EU countries and bottom up citizen's mobilizations in the Western Balkan countries. It will foster a political culture that will build strong citizen's resilience to antidemocratic tendencies.

³²³ COM/2021/252 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:252:FIN>

³²⁴ <https://www.circle-u.eu/initiatives/knowledge-hubs/>

³²⁵ <https://act-wb.net/>

ENAI, the European Network for Academic Integrity³²⁶ is an Erasmus+ strategic partnership for higher education. The network brings together academics from all sectors to exchange research and information and access resources in the field of academic integrity. It has produced educational material and supported the development of self-assessment and plagiarism detection tools.

ENERI set up a unique **European Network of Research Ethics and Research Integrity**³²⁷. It has been funded by Horizon 2020. ENERI connects and strengthens the existing networks. The European Network of Ethics Committees (EUREC); the European Network of Research Integrity Offices (ENRIO); the All European Academies (ALLEA) and other joined forces to form strong ties between Research Ethics and Research integrity. An e-Community of 165 RE/RI experts encourages the sharing of best practices.

7. Skills and competences for the green transition

7.1. Higher education and the green transition

Recognising the global impact of climate change, international, European, and national policy makers are placing more emphasis on concrete measures to make societies more environmentally sustainable. At the European level, the flagship European Green Deal sets the agenda for the green transition. In higher education, all missions of learning and teaching, research, innovation, and service to society have a role in building a more sustainable society.

Higher education institutions (HEIs) are actively engaged in implementing environmental sustainability initiatives in their campuses, as well as in disseminating best practices to the surrounding communities and society. The pursuit of sustainability covers many different areas, such as research, teaching and learning curricula and programmes, innovation and development (I&D), infrastructure partnerships, stakeholder involvement, innovation, digitalization, and sustainable architecture.

As responsible societal actors, HEIs can positively impact society and stakeholders through demonstrated social and environmental responsibility, benefiting from sustainable campus experiences and research that can be extrapolated to the surrounding environment. Indeed, the engagement of HEIs with their local ecosystems is crucial for their greening, and will also help to build partnerships tackling specific challenges, like developing sustainable cities.

Stakeholders, including the European University Association (EUA), agree that the higher education sector could contribute more to carbon neutrality, and more substantially support the green transition and the Green Deal Initiative. The green transition offers HEIs an opportunity to intensify collaboration and peer learning both among higher education institutions and with industry and local innovation ecosystems. This, in turn, may enhance their wider societal impact through education, research and innovation, and foster the engagement with society at the global to local levels.³²⁸

³²⁶ <https://www.academicintegrity.eu/wp/>

³²⁷ <https://eneri.eu/>

³²⁸ https://eua.eu/downloads/content/eua_strategic_plan_final.pdf

7.2. Challenges relating to higher education’s contribution to the green transition

The green transition requires changes across the higher education sector, concerning how higher education institutions are structured, governed and funded and how sustainability is mainstreamed across their missions. The structure and internal systems of HEIs present specific challenges related to operations and practices that may hinder their efforts to contribute to a more sustainable society and towards meeting the goals of the European Green Deal.³²⁹ These elements are related to six major dimensions, covering both administrative operations and universities' core practices: (1) teaching and learning; (2) research and innovation; (3) services and outreach; (4) governance and leadership; (5) environmental strategy; (6) external environment. Table 7.1 lists these dimensions of HEIs and explains the corresponding main challenges discussed by the current literature.

Table 7.1: EU challenges to the green transition in a higher education context

Dimensions	Challenges
Teaching and Learning	<ul style="list-style-type: none"> Integration of sustainability across disciplines Implementation of interdisciplinary learning Higher integration of sustainability into the curricula Promotion of formal, non-formal and informal learning approaches Empower students with knowledge and key competencies to conduct the green transition
Research and innovation	<ul style="list-style-type: none"> Foster innovative research on green transitions Develop applied research on green technologies Build partnerships within the industrial and local and regional innovation ecosystems Raise research subsidies and funding on environmental sustainability Foster trans-disciplinarity in research
Services and Outreach	<ul style="list-style-type: none"> Foster the relationship between universities' staff, students, and their communities Promote green and environmental volunteering Encourage sustainability-related student organisations
Governance and Leadership	<ul style="list-style-type: none"> Ensure commitment from universities' higher management Promote a culture of sustainable societal changes Implement organisational change management for sustainability in HEIs Overcome triggers of resistance on the individual and institutional level Implement monitoring and reporting systems Set processes for evaluation of the outcomes
Environmental Strategy, Policies, and Campus Operations	<ul style="list-style-type: none"> Create sustainable value to HEIs' internal and external stakeholders Establish a budget and identify resources required for implementation Introduce the continuous professional development of staff and training programmes

³²⁹ <https://www.sciencedirect.com/science/article/pii/S0959652621011343>

Dimensions	Challenges
	Identify policy instruments to bring about and influence HEIs' environmental decisions Embed sustainability across all campus operations Develop new initiatives to respond to sustainability-related challenges
HEI external environment	Establish inter-university collaborations, and introduce benchmarking related to teaching, research, administration and campus operations Involve government and policymakers in on-going dialogues to broaden understanding of constraints experienced and support required by HEIs Develop public policies to foster HEIs' green transitions Introduce initiatives and programmes to foster green campus operations. Actively involve communities in HEIs' activities Strengthen university-industry cooperation within the local ecosystem, promoting clean innovation, technology transfer and diffusion of clean technologies

Addressing these challenges provide benefits to HEIs. Through overcoming the constraints to a green transition, the institutional reputation may be improved, for example. This may increase their potential to attract students, future employees and to provide the impetus for change. For students, the advantages of joining an institution active in this process include an increase in sustainability knowledge through teaching and learning and research, the opportunity to engage with sustainability issues through societal partnerships, and greater interdisciplinary interactions between students and educators. This combination may lead to a culture of sustainability and accelerate a green transition.

7.3. What has been achieved so far

Widening societal demands for sustainable development initiatives have turned HEIs into key actors in the green transition and agents of social transformation.³³⁰ They are called upon to use science, knowledge and innovative teaching expertise to furnish feasible solutions to cope with the sustainable development challenges related to issues such as climate change, decline of biodiversity, dissemination of plastic materials in remote and underwater regions, desertification of wide areas, unexpected droughts and floods.³³¹ HEIs are also undergoing a long-term and unprecedented process of internal changes to attain the green transition, assuming their leading role, and recognizing their potential to accelerate the social progress towards carbon neutrality, and towards more sustainable lifestyles patterns.

Many European HEIs have embraced the values of sustainable development, such as ensuring that sustainability is formally embedded in academic and lifelong-learning training. They have also encouraged the critical thinking and new ideas necessary to support the delivery of technological advances in areas core to sustainable development, such as renewable energy, sustainable living, food production, organic agriculture, CO2 capture, water quality, sustainable design of products and buildings, and strategies for energy generation and biofuels.

There is some evidence that the green transition is leading to significant changes in the ways HEIs operate. For instance, many are shifting from fossil fuel usage to more renewable sources of

³³⁰ <https://doi.org/10.1002/sd.2219>
³³¹ [KR0321037ENN.en \(9\).pdf](#)

energy. Alternatively, those unable to fully use renewable energy, are committed to reducing current fossil fuel usage. The EUA has called sustainability the most significant global challenge and has committed itself to put their universities' missions "... into the service of sustainability, evaluating and being accountable for the appropriate adjustment of principles and values, as well as policies and activities."³³² The EUA is a supporter of the transformational role of universities in society, including the implementation of the SDGs, universities' responses to the European Green Deal and the contribution they provide to local innovation ecosystems.³³³

At the European policy level, strategy documents in education and training have frequently identified HEIs as institutions central to Europe's successful green transition.

The **Biodiversity Strategy 2030** encourages cooperation in education for environmental sustainability.³³⁴ This would provide guidance for schools, higher education institutions and teachers on how to cooperate and exchange good practices on environmental sustainability education including biodiversity learning and teaching across Member States.

The **Green Deal Communication**³³⁵ refers to schools, training institutions and HEIs as being well placed to engage pupils, parents, and the wider community on the changes needed for a successful transition. It also announced the development of a European competence framework to help define the knowledge, skills and attitudes on climate change and sustainable development and to serve as a reference tool for the development and assessment of these competences. The recovery plan **NextGenerationEU**³³⁶ focuses on the need for a greener, more digital and resilient Europe.

The European Bauhaus Communication stresses the EU's ambition of creating beautiful, sustainable, and inclusive spaces, including for education and knowledge (e.g. public libraries, schools and universities) as well as products and ways of living.³³⁷ It brings a cultural and creative dimension to the European Green Deal to enhance sustainable innovation, technology and economy and aims to provide all citizens with access to goods that are circular and less carbon-intensive and support the regeneration of nature and protect biodiversity.

The EU has emphasized the critical role and responsibilities of higher education in the green transition across both the European Education Area and the European Research Area. The following issues are highlighted: 1) the green transition is one of the main challenges universities are facing today, 2) HEIs have a key role and responsibility in producing new knowledge and providing learners with new green skills, 3) HEIs are important in articulating the expanse of green transition issues through digitalization, lifelong learning and transnational cooperation. The **Communication on a new European Research Area** notes the need to boost Europe's recovery by making full use of its research and innovation results to support the green and digital transition of the EU economy.

The **Communication on achieving the European Education Area by 2025** identifies support for the green and digital transitions as a major challenge for EU policy cooperation. Supporting the green and digital transitions through education and training is a strategic priority of the **Council**

³³²<https://eua.eu/downloads/publications/universities%20without%20walls%20%20a%20vision%20for%202030.pdf>

³³³https://eua.eu/downloads/content/eua_strategic_plan_final.pdf

³³⁴https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en

³³⁵ COM(2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640>

³³⁶https://europa.eu/next-generation-eu/index_en

³³⁷https://europa.eu/new-european-bauhaus/system/files/2021-09/COM%282021%29_573_EN_ACT.pdf

Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030).³³⁸

The **Communication on a new European Research Area for Research and Innovation** outlines the key challenges ahead for research and innovation policy relating to the deep societal, ecological, and economic challenges Europe is facing.³³⁹ The European Research Area and the European Education Area will collaborate closely, so that the combined forces of Europe's education, research and innovation sectors can help achieve a more equitable and sustainable world while remaining globally competitive and innovative. The ERA Policy Agenda in the Council Conclusions on the future governance of the ERA includes actions realising an ERA for green transformation.³⁴⁰

The **EIT Community** offers a wide range of EIT-labelled Master's and doctoral programmes, as well as other educational initiatives, to help European citizens develop the skills needed to create a greener Europe. The EIT programmes emphasise the role of disruptive technologies (e.g. Artificial Intelligence), which are crucial for green growth. EIT Digital offers graduate and professional programmes through its EIT Digital Academy. Additionally, through programmes like The Journey and Pioneers, EIT Climate-KIC is educating climate change leaders all over Europe.

The **European Skills Agenda for sustainable competitiveness, social fairness and resilience** announces a set of actions to support the acquisition of skills for the green transition, including by defining a taxonomy of skills for the green transition, supporting the development of a core green skills set for the labour market to guide training across the economy and integrating environmental, energy and climate considerations into school, higher education, and vocational education and training.³⁴¹ The **Council Recommendation on the key competences for lifelong learning** calls on Member States to “mainstream the ambitions of the UN Sustainable Development Goals (SDG), in particular within the SDG 4.7, into education, training and learning”.³⁴² The **Council Resolution on a new European agenda for adult learning 2021-2030**³⁴³ recommends using the twin transitions as a driver for innovations in learning pathways and new educational and training approaches, developing approaches to integrating sustainable development into adult learning and promoting inclusive, digital and sustainable societies and learning workplaces.

The **Digital Education Action Plan (2021-2027)** outlines the Commission's vision for high-quality, inclusive, and accessible digital education in Europe.³⁴⁴ The plan highlights digital technologies and skills as enablers for the green transition, including for moving to a circular economy and decarbonising energy, transport, construction, agriculture, and other sectors. In addition, the proposal for a **Council recommendation on a European approach to micro-**

³³⁸ 2021/C 66/01 [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32021G0226\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32021G0226(01))

³³⁹ COM(2020) 628 final <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0628&from=GA>

³⁴⁰ Pending 13389/21 Council Conclusions on the future governance of the European Research Area, including an ERA Policy Agenda (adoption anticipated end of November 2021).

³⁴¹ COM/2020/274 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0274>

³⁴² 2018/C 189/01 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018H0604%2801%29>

³⁴³ <https://www.consilium.europa.eu/media/53179/st14485-en21.pdf>

³⁴⁴ COM/2020/624 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0624>

credentials for lifelong learning and employability calls on member States to use micro-credentials to support the development of learning provision in environmental sustainability.³⁴⁵

The **Council Conclusions on the European Universities initiative** stress the role of European HEIs in contributing to a more united, innovative, digital, connected, and greener Europe, open to the wider world by increasing the resilience, excellence, geographical and social inclusiveness, gender equality, attractiveness, and international competitiveness of European HEIs.³⁴⁶

The upcoming **European Strategy for Universities** and the upcoming proposal for a **Council Recommendation on Building bridges for effective European higher education cooperation** will promote more effective and deeper transnational cooperation as a crucial element to tackle, inter alia, the challenges related to the twin digital and green transitions and to building a sustainable future.

7.4. What is needed to support HEIs to be actors of change in the green transition?

As part of the green transition, HEIs are expected not only to engage in traditional teaching and research activities, but also to understand societal challenges. They also need to adapt their internal systems and resources and capabilities to contribute towards a green transition. Figure 7.1 illustrates this process in a systemic perspective, identifying the main dimensions the present potential challenges and actions needed in support of the overall vision, and future efforts of higher education institutions as part of a green transition.

Figure 7.1. The role of HEIs in contributing to the green transition

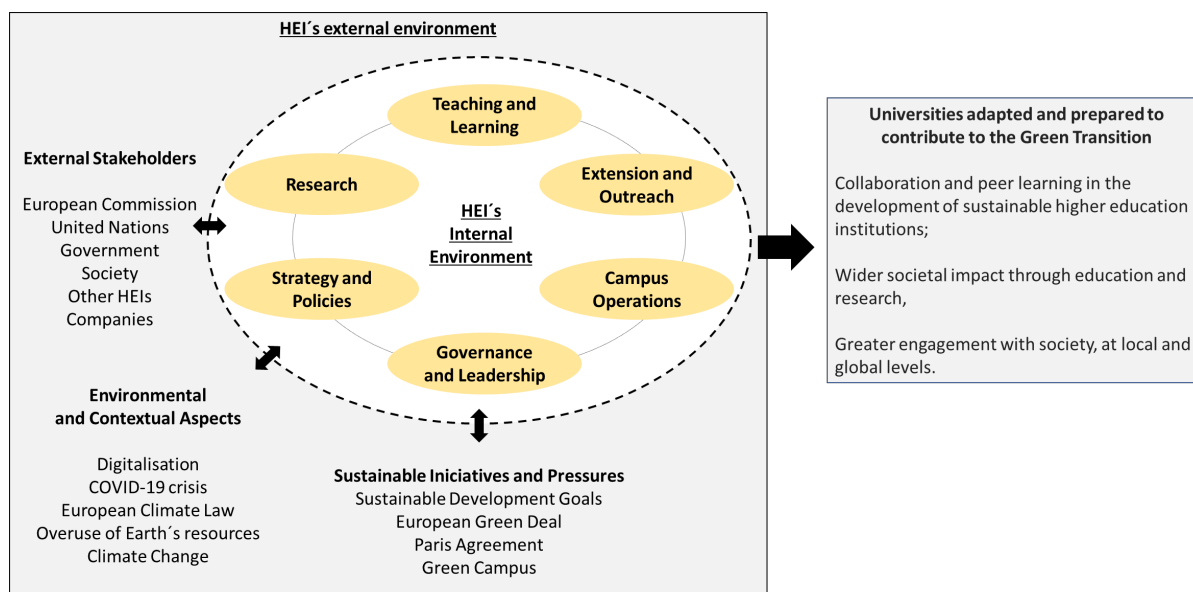


Figure 7.1 shows the internal and external environments where HEIs operate. It contains the environmental and contextual aspects in which universities are embedded, the demands and expectations of external stakeholders, and the initiatives and pressures that affect their internal environment such as the SDGs, the European Green Deal, their degree of engagement in the implementation of the Paris Agreement, and initiatives towards a Green Campus. These

³⁴⁵ https://ec.europa.eu/education/education-in-the-eu/european-education-area/a-european-approach-to-micro-credentials_en

³⁴⁶ 2021/C 221/03 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AC%3A2021%3A221%3AFULL>

dimensions illustrate several challenges related to the extent to which internal or external factors could foster or inhibit HEIs in contributing to green transitions. For example:

- Is there a capacity for facilitating inter-university collaboration?
- How active is the involvement of governments in understanding the constraints faced by HEIs, and supporting them with resources?
- Are there explicit policies to promote sustainability within the institution?
- How connected is the university with its wider community, and with all stakeholders, especially SMEs, in its local innovation ecosystem?
- What is the quality of university-industry cooperation, especially in clean innovation and technology transfer?³⁴⁷

There is an urgent need for higher education to undergo a transformational green transition. This requires a change of mind-set. The themes identified below are areas where the EU can help encourage, engage and enable radical changes and stronger commitments by key actors across the higher education sector. Box 7.1 presents some gaps for action in supporting the EU vision to assist universities in pursuing the green transition.

Box 7.1 Further support needed to help HEIs to realise a green transition.

HEIs should be at the forefront of efforts to catalyse Europe towards a green transition.
As far as the operational aspects are concerned, there are five thematic, operational, and educational issues that may serve as initial points of discussion for EU action aimed at helping Universities achieve a green transition.
1. Prioritising Sustainability Engagement
Within the framework of sustainability issues, the main aim of universities is to help improve the quality of life of their local community, and to empower citizens with the tools necessary to achieve sustainability. This requires engagement to be achieved through widening participation with individuals and groups from both voluntary and state agencies. The EU can develop the required mechanisms and necessary fora to give a voice to all stakeholders. The objective is to support HEIs’ active and intentional engagement with actors and citizens in their local ecosystems and in their transformation into ‘green villages’. ³⁴⁸
2. Greening the Courses and the Campus
Some HEIs have already renewed their courses and campus with the intention of ‘greening’ the campus. ³⁴⁹ However, efforts are sporadic and rather than stimulating a bottom-up approach to achieve sustainability, many efforts are pursued in a top-down fashion. There needs to be increased engagement to raise the environmental awareness within campus communities. ³⁵⁰ A more holistic approach needs to be taken by fostering increased multilevel, multinational

³⁴⁷ <https://data.europa.eu/doi/10.2760/918801>

³⁴⁸ Green villages are communities using local participatory processes to integrate ecological, economic, social, and cultural dimensions of sustainability holistically, in order to regenerate social and natural environments; local participation and engagement is crucial.

³⁴⁹ See example from Romania, <https://www.emerald.com/insight/content/doi/10.1108/IJSHE-01-2019-0036/full/html>

³⁵⁰ https://www.researchgate.net/publication/335368457_The_Role_of_Universities_in_Sustainability-Oriented_Competencies_Development_Insights_from_an_Empirical_Study_on_Polish_Universities

discussions that engage all stakeholders in a balanced way. Solutions are needed to incentivise universities to develop holistic sustainable approaches that can then be shared with others HEIs. Identifying climate and energy “frontrunners” and supporting their actions would stimulate virtuous emulation of greening efforts.

3. Supporting Collaboration Among Universities and their networks

HEIs need to form a united front to achieve sustainability, and to overcome any misconception that achieving a green transition is simply a process to be carried out by individual institutions. National and transnational joint actions (e.g. co-teaching and research projects) can help build capacity and widen HEI presence. Enhanced collaboration within European Universities can be achieved through tangible efforts to create pan-European networks of active and engaged HEIs aiming towards collective sustainability. An essential part of this vision is the need for an enhanced portfolio of qualifications, through collaborative pan-European degrees.

4. Enabling enhanced targeted funding

European HEIs are strategically placed to engage local communities in actions required to adapt to a more sustainable way of life. However, various barriers stand in the way, as described in Table 3.1. A key barrier is the lack of adequate funding. Increased, targeted funding can enable and incentivise university operations to more effectively engage the local community with research and policy implementation.

5. A pedagogy about and for sustainability

Many of Europe’s HEIs need to reorient their overall pedagogy to foster the formation of knowledge and skills that enable students to think more critically and act more sustainably. A pedagogical framework should focus on actions and encouraging pro-environmental behaviour. Additionally, this framework should include the skills and competences required to cope and deal with the consequences of increased number of disasters, due to climate change. Teaching about sustainability is important but teaching for sustainability is crucial.

In the context of the green transition, international mobility, as currently practised by European Universities and other transnational cooperation initiatives, may be counterproductive to their attempts to operate in a sustainable way, especially with respect to reducing significant CO2 emissions associated with travel. Most HEIs are aware of this problem, and they can encourage their staff and students to use low carbon forms of transport for mobility and meetings, such as the wider use of public transport and car-pooling or car sharing.

The Erasmus+ Programme supports green travel and encourages individual responsibility by giving back to nature and the local community of the target destination. This can involve avoiding domestic flights, using trains, electric cars, bikes, scooters, or going on foot, if possible.³⁵¹ These examples show the potential emissions savings of doing things differently, to be decided on a case-by-case basis. Apart from travel, the choice of environmentally friendly accommodation during an Erasmus+ mobility should be considered as well.

³⁵¹ <https://esn.org/green-travel-perspective>

A further way to reduce the carbon footprint is by replacing trips to attend short meetings with virtual formats. "Virtual mobility" of students and staff is suggested by the "Greening in European higher education institutions" study which includes 372 HEIs.³⁵² 64% of the surveyed institutions have greening activities in place across the institution and greening mobility and commuting are addressed at almost all institutions through digital tools and virtual forms of learning, working, and mobility, replacing physical exchange.

To realise the green transition, HEIs need to have a sense of community, sharing, co-responsibility, and awareness about the importance of giving the whole HEI community a voice. People and particularly students, should be encouraged to take the initiative and share solutions for adapting to ongoing and often demanding changes. By doing so, higher education institutions can not only implement a green transition but they can also play a leadership role – promoting a holistic development and emphasizing sustainability and cohesion.

Conclusions

Braßler and Sprenger³⁵³ present three steps which can contribute towards a greater development of sustainable development knowledge in higher education and, inter alia, to a green transition:

1. On the organisational level, the HEI should set the policies and agenda for pursuing sustainability.
2. Educators should engage in interdisciplinary and team-teaching, going beyond discipline-based knowledge. Together with researchers, they should foster interdisciplinary research and new innovations tackling a variety of environmental, social, and economic themes in a meaningful way.
3. It is important to foster interdisciplinary learning among students and increase their knowledge on matters related to sustainable development, acquainting them with the theory and practice of sustainability.

To ensure success, there are key elements which need to be in place to achieve the full implementation of a green transition across higher education. Implementing the green transition involves the engagement of all the stakeholders – within and outside the institution and working together. In the past, sustainability efforts have had a predominant focus at the macro and meso-scales, neglecting the micro scale. Future efforts should therefore strive to promote actions at all levels, and by doing so, may mobilise all institutional stakeholders.

To fully capitalize on the advantages provided by the green transition, HEIs should be fully aware that this is a process the implementation of which may support interdisciplinarity, diversity and social cohesion, and foster equity and inclusion, while strengthen transnational cooperation and supporting their roles as centres of knowledge, discovery and innovation.

³⁵² <https://eua.eu/resources/publications/982:greening-in-european-higher-education-institutions.html>

³⁵³ <https://doi.org/10.3390/su13063494>

Success stories of transnational projects developing skills and competences for the green transition

The European Universities Alliance **Challenge-driven, Accessible, Research-based, Mobile (CHARM-EU)**³⁵⁴ is funded through Erasmus+ and Horizon 2020 and has developed a joint Master's degree in Global Challenges for Sustainability.³⁵⁵ Students will acquire advanced knowledge of sustainability by addressing real world and global societal challenges such as the Sustainable Development Goals and the European Green Deal in transdisciplinary and intercultural teams. The programme will employ innovative pedagogical approaches to engage staff and students of diverse backgrounds and disciplines to facilitate the links between education, research and innovation.

ECOSTAR³⁵⁶ is an Erasmus+ Knowledge Alliance Project comprising a global network of innovators, linking biodiversity science to the business world. It is based on an innovation hub focussed on nature and ecology-related topics and assisting entrepreneurs in establishing innovative nature-based start-ups. In conjunction with a platform to connect HEIs with the needs of the labour market and applicability, this project provides its participants with knowledge, experience and an entrepreneurial mind-set. It supports them to respond to new societal challenges and trends, such as the green and digital transition.

EIT Raw Materials Master's Programme in Advanced Materials for Innovation and Sustainability (AMIS)³⁵⁷ is offered by five universities in four EU countries. It provides students with an understanding of the full raw materials value chain and a mind-set for innovation and entrepreneurship focusing on sustainability. AMIS tackles this challenge by focusing on three themes: substitution of critical or toxic materials in products for optimised performance, material chain optimisation for end-of-life products, and product and service design for the circular economy.

Renewable materials and healthy environments research and innovation centre of excellence (InnoRenew)³⁵⁸ is funded by Horizon 2020. This Centre of Excellence in Slovenia fosters research on the innovative and efficient use of renewable resources in building materials. With support and guidance from the advanced partner, Fraunhofer WKI, scientific research and development activities are transferred rapidly and effectively to the industry and through them to society in the form of innovative new products and processes.

8. Skills and competences for the digital transition

8.1. The needs on digitalisation of higher education

The COVID pandemic has shown the capacity of HEIs to innovate and switch rapidly to digital practices. In doing so, this crisis highlighted structural issues concerning the digital transformation in HEIs, which have been discussed since much before the pandemic. It has exposed the need for structural digital transformation beyond ad-hoc decision making, and revealed important inequalities in digital skills as well as access to digital infrastructure and equipment.

The **digital transformation** is reshaping society, the labour market, and the future of work, and it affects HEIs in many ways. HEIs have a critical role to play in helping Europeans develop digital skills and competences to further innovation, to support their professional life, and to maintain a democratic and open European society. HEIs can support utilizing digital technologies more

³⁵⁴ <https://www.charm-eu.eu/alliance>

³⁵⁵ <https://www.charm-eu.eu/masters/globalchallenges>

³⁵⁶ <https://www.ecostarhub.com/>

³⁵⁷ <https://masters.eitrawmaterials.eu/>

³⁵⁸ <https://innorenew.eu/>

efficiently and flexible in social sector institutions as well as in industry. In turn, HEIs also need digital technologies for more efficiency and flexibility in their own operations.

Digital technologies can help empower transnational cooperation between HEIs. This will ensure that they are at the forefront of knowledge-generation and innovation in strategic social and economic priorities. For graduates, digital competence is seen as a basic skill. Especially with new technologies, digital competence both acts as a catalyst for innovation and creativity as well as helps individuals to access and use knowledge and information. In addition, digitalisation is perceived as better way to link research and education, providing cross-disciplinary opportunities and access to infrastructure.

Sustainable investment in higher education is needed 1) to empower HEIs in digitalisation and 2) for them to actively engage in Europe's digital transformation. This includes investment in teaching and learning, research, innovation, and vocational education and training, as well as the supportive systems and people that enable digitalisation. Furthermore, EU-level guidance is required in terms of coordination and expertise to support concerted efforts among the Member States, HEIs, and all other relevant stakeholders towards strengthening Europe's digital capacities.

Support from the EU needs to address existing gaps: (1) Insufficient digital knowledge and skills among many Europeans, especially women, for future societal and employment opportunities; (2) Untapped potential for creating and improving access to high-quality trusted European online digital content; (3) Innovative digital solutions to enhance collaboration and transnational cooperation in higher education, including through greater interoperability; (4) Accelerate research and innovation in strategic and enabling technologies to strengthen Europe's digital capacities towards achieving tech sovereignty.

Digital skills among Europeans are still not sufficient to support the digital transformation of the European Union and to fully utilize the power of digital technologies in an open and interconnected world.³⁵⁹ The COVID-19 pandemic has highlighted the essential role of digital technologies in our societies and economies. Although the digital transformation was underway well ahead of the pandemic, existing gaps were highlighted during its course. Studying, working, shopping, keeping in touch with family and friends as well as using public services and enjoying cultural activities, was often only possible due to digital technologies. Consequently, those without basic digital skills, digital devices, or a stable internet connection, experienced significant economic and social exclusion.

The COVID-19 pandemic has also exposed the necessity for digital skills in many professions that were not normally considered to be strongly technology-focused, such as primary health workers, carers, teaching staff, and many business owners. In that context, too many had to play 'catch-up', as they did not have relevant digital tools and competences.

Consequently, the European Commission has adopted ambitious targets as part of the 2030 Digital Compass, aiming for 80% of the adults in the EU to have at least basic digital skills by 2030. Most recently available data shows that only slightly above half of adults (56%) across the European Union aged between 16-74 currently have basic or above basic overall digital skills.³⁶⁰ Since 2015 (the first year with available data), this share has increased by only 2 percentage points.

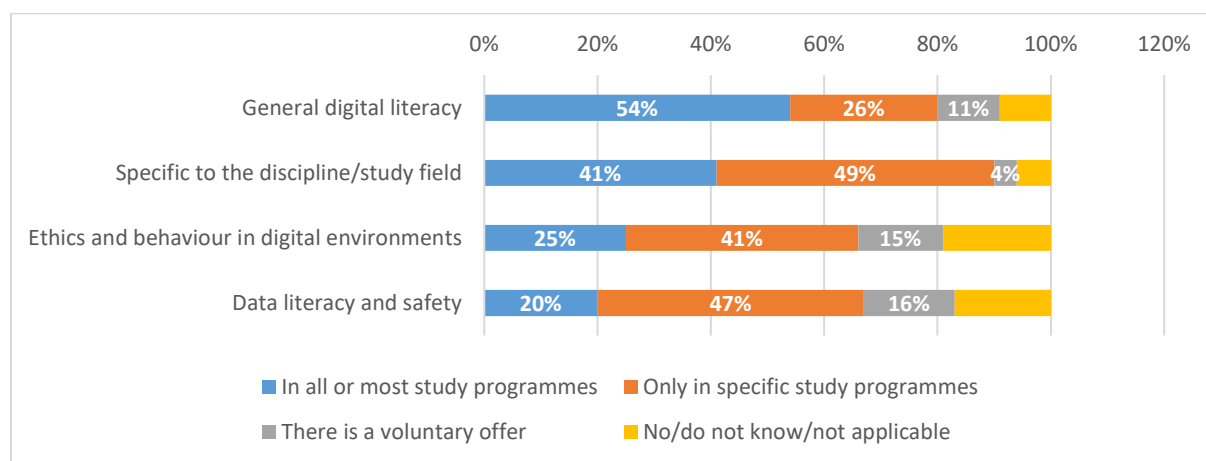
³⁵⁹ COM/2021/118 final <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52021DC0118>

³⁶⁰ https://ec.europa.eu/eurostat/databrowser/view/ISOC_SK_DSKL_1/default/table?lang=en Digital skills are measured as a composite indicator based on selected activities performed on the internet in the four specific areas: information, communication, problem solving, content creation and based on the *Eurostat Community survey on ICT usage in households and by individuals*.

If this growth rate is an indication of future development, progress would only reach 62% with at least basic digital skills by 2030. Furthermore, there remain notable differences between EU Member States. Eurostat statistics for 2019 report that countries such as Bulgaria and Romania are lagging, with less than a third of individuals who demonstrate basic or above basic digital skills. By contrast, Netherlands and Finland have more than 74% of individuals with such level of digital skills.³⁶¹ There is a clear gap in digital skills among Europeans that can only be filled through education and training. Here higher education plays a crucial role.

Insufficient levels of digital literacy are often cited as the main obstacle to student success in digital enhanced learning and teaching in higher education.³⁶² Broadly speaking, HEIs have provided students both with general digital skills training as well as training specific to the discipline of study. However, Figure 8.1 shows that other types of training like ethics and behaviour in digital environments or data literacy and safety have been far less prevalent.

Figure 8.1 Digital skills training in HEIs’ educational offer



Source: Gaebel, M., Zhang, T., Stoeber, H., & Morrisroe, A. (2021). *Digitally enhanced learning and teaching in European Higher Education Institutions*. European University Association.

Digital competence is not solely necessary for a successful professional life and to trigger innovation, but also **for tackling misinformation. Digital literacy is a condition for navigating and evaluating sources of information found on the internet.** The so-called “post-truth” era is characterised by loss of trust in science and the rise of misinformation and “fake news”. As the major producer of knowledge, higher education needs to reassure citizens of the credibility and value of science, in addition to producing innovative science. The internet, especially social media, have created possibilities for much faster and wider outreach of misinformation. Responsible use of new media as part of teaching digital skills can thus also address the challenge of misinformation associated with populism and radicalisation.

Furthermore, **Europe lacks a critical mass of ICT specialists in addition of a gender imbalance across the ICT profession.** Data from Eurostat (2020) shows that across the whole of the EU, ICT specialists accounted for 4.3% of the total workforce in 2020.³⁶³ This is a small share of the workforce given that ICT specialists are key drivers of digital and digital-enabled innovations for

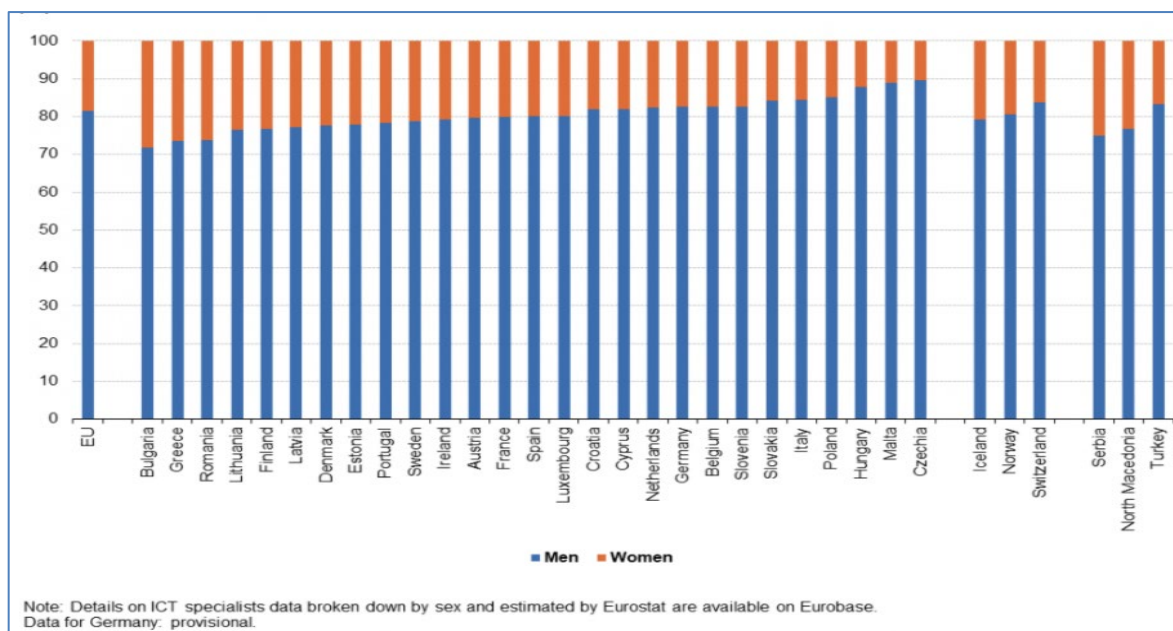
³⁶¹ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tepsr_sp410&lang=en

³⁶² <https://eua.eu/resources/publications/954:digitally-enhanced-learning-and-teaching-in-european-higher-education-institutions.html>

³⁶³ <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20210716-1>

the benefits of all citizens and all sectors in the Digital Decade. Moreover, there is low representation of females in ICT professions (Figure 8.2).

Figure 8.2 Distribution of ICT specialists by gender, 2020 (%)



Source: Eurostat (isoc_sks_itsps)

Statistics from 2011 to 2018 show a huge demand for ICT specialists in the EU as the specialists that were employed in this field grew with 47.9%, eight times as much as the increase for total employment (5.9%).³⁶⁴ Furthermore, over half of the employers in the EU (58%) reported difficulties in recruiting ICT specialists, indicating a large gap for advanced digital skills.³⁶⁵ The lack of ICT specialists can be traced back to the low percentage of graduates in ICT studies.

Specialised education offer in digital areas, such as AI, cybersecurity or cloud often lacks in the EU compared to the US or UK³⁶⁶. The main role in the offer of advanced technological skills is held by the US, which leads in terms of number of programs provided in several technological domains. The UK also provide a significant offer that for some disciplines, such as cybersecurity is close to the total EU27 offer. In addition, the teaching of digital skills in non-ICT faculties is very low, for example AI is taught only in 2% of businesses faculties and 1% of arts and humanities, whereas its potential impact in these areas is significant.

Eurostat reports that in 2018 only 3.8% of all graduates (3,984,700) were from ICT programmes (151,400).³⁶⁷ Across upper secondary and tertiary education more than 1.3 million people were studying Information and Communication Technologies (ICT) in the EU in 2018,³⁶⁸ females were still significantly under-represented in this field, accounting for only 17% of all ICT students in

³⁶⁴ Eurostat database for the following sources: employed ICT specialists - total, employed ICT specialists by sex, employed specialists by educational attainment level and employment by sex, age and citizenship.

³⁶⁵ Eurostat (2019). ICT specialists - statistics on hard-to-fill vacancies

³⁶⁶ doi:10.2760/225355, JRC121680

³⁶⁷

[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Number_of_tertiary_education_graduates_in_each_field_of_education,_2018_\(thousands\)_ET2020.png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Number_of_tertiary_education_graduates_in_each_field_of_education,_2018_(thousands)_ET2020.png)

³⁶⁸ <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20200423-1>

the EU.³⁶⁹ Higher education has a role to play to expand access to ICT studies in general, and widen participation in ICT studies especially for female students.

Apart from the increased need of ICT specialists, it is also necessary that all students, for example those studying medicine, business administration and agriculture learn to use advanced digital technologies such as artificial intelligence, big data, internet-of-things etc. to use these technologies in their professions. The lack of qualified teaching staff needs to be tackled as advanced digital technologies penetrate all sectors of the economy.

The COVID-19 crisis has clearly shown that **access to high quality digital education content is a key requirement for an effective provision of digital education**. Entering the lockdowns in spring 2020, almost half of European HEIs offered some form of open learning (48%), including MOOCs (36%, up from 12% in 2014). As in the broader digital context, a similar pattern of “cautious experimentation” emerged, with the majority of HEIs having only created a few “pilot” MOOCs and only a handful of HEIs (17%) offering more than ten MOOCs.³⁷⁰ Nevertheless, open online education is an area where the EU excels compared to other global markets and “the uptake of MOOCs in Europe is maturing at a much higher level compared to the US”.³⁷¹

Although the uptake of MOOCs has increased, the majority of European HEIs has offered their MOOCs on external digital platforms, either one of the biggest global platforms (such as edX, Coursera, FutureLearn) or regional/national platforms (e.g., France Université Numérique – FUN). Others implement open-source MOOC platforms at their institution (e.g., Moodle, OpenedX, OpenMOOC) or offer MOOCs on their dedicated platform. Data on the main global platforms, provided by Class Central Inc. indicates that MOOCs production is twice as prevalent in the US in comparison to the EU. Three out of the five main MOOC platforms are US-based, attracting 73% of all MOOC learners. None of the EU-based platforms are amongst the five leading ones.

A consultation³⁷² with HEIs made clear that the use of external platforms might become problematic in the future. Although relatively advanced European MOOC initiatives have been launched, they are isolated and fragmented. This lack of a Europe-based platform will likely increase the costs for European HEIs to access learning resources, while the information on HEI learning opportunities and courses may be accessed on the Europass platform. Furthermore, a collective platform initiated by the EU has the potential to offer multilingual options to increase the ease of access. MOOCs could also add global visibility and attractiveness to European HE as well as contribute to developing “International partnerships for the Digital Decade”.³⁷³

Digital infrastructure is a key framework condition for digital transformation and European policies that strengthens Europe’s capacity are a priority. The EU plan for economic recovery calls for Member States to allocate at least 20% of the recovery and resilience facility to digital transition; there is also substantial funding supporting digital and data infrastructure under Horizon Europe. For harmonisation of approaches across Europe, allowing for sharing of resources and exchange of information, it is necessary to develop new norms and interoperable standards, which should include both digital infrastructures and for content and accreditation.³⁷⁴

³⁶⁹ <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20200423-1> Data source: educ_uae_enra03

³⁷⁰ <https://eua.eu/resources/publications/954:digitally-enhanced-learning-and-teaching-in-european-higher-education-institutions.html>

³⁷¹ https://eadtu.eu/documents/Publications/OEenM/MOOC_Strategies_of_European_Institutions.pdf.

³⁷² Consultation within the context of the feasibility study conducted by PPMI based on desk research and comprehensive stakeholder consultations.

³⁷³ https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/european-open-science-cloud-eosc_en

³⁷⁴ “Knowledge ecosystems in the new ERA”, Policy Brief for the Higher Education Transformation Agenda – publication pending (Commission study RTD/2020/SC/11).

HEIs in Europe need better digital solutions for cooperation. Apart from achieving secure and resilient digital infrastructure, there is also a critical need to achieve **interoperability among digital systems** of HEIs and of education and training ecosystem such as Europass. This would enable seamless sharing of knowledge and information between these institutions, support pooling of resources and increase cooperation in education, research, innovation, and service, also on a transnational scale.

Interoperability is also relevant between digital systems of HEIs and external stakeholders, to which HEIs regularly deliver data for reporting purposes. In particular, the Member States Governments, National Statistics Agencies, Quality Assurance Agencies and other government agencies. Integrated IT architecture with cloud-based integration platforms and solid data security can help achieve efficient data sharing and improve decision-making processes in higher education systems.

Currently, there are barriers to cooperation that are related to not having adequate exchange standards. Many HEIs, even within the same country, work with different learning management systems (LMS) and student information systems (SIS). Often, it is difficult to exchange standardised information about courses, about exams, transfer grades between HEIs. This is particularly a problem for HEIs that have deep cooperation projects with other institutions (for example in the European University Alliances), where different systems can restrict the possibilities to collaborate. Relying on the European Learning Model could provide a solution to exchange student data, information on their qualifications and courses as it has been piloted under the early adopter's programme of the European Digital Credentials.

Actions to support the digitisation of higher education require strong partnership approaches across HEIs. Consultation with European University Alliances reported obstacles in interoperability. The Alliances preferred not to introduce new overarching digital tools, but instead focus on interoperability between the different existing tools to ensure smooth operation between partner universities and beyond. Key features should be scalability, replicability, and the impact of solutions. It is also important to learn from previous experience specific projects such as Erasmus without paper, European Student Card, and Virtual Campus pilots.

Interoperability is also an issue within the European University Alliances because individual universities take different approaches to the development and organisation of their IT ecosystems. The importance of keeping coherence in the own institutional environment and focusing primarily on the functionality of their own IT environment leads to less cooperation due to risk avoidance.

The most common issue mentioned in stakeholder consultations pertained to the registration and authentication of students. In most systems there is no way to limit access between systems of different HEIs, meaning that once a student is authenticated, they gain access to all available systems in that institution. This leaves institutions reluctant to provide authentication to visiting students. Possible solutions could be a system that adds 'tags' to the authentication to create different or personalized levels of access, a common Identity Management System, or application programming interfaces (APIs) which are accepted and universally used on European (and international) level. To achieve interoperability, it is also necessary to reach common agreement, so universities can uphold the same level of verification. Common procedures, techniques and solutions would offer HEIs improved interoperability and reduce unnecessary workload.

Many HEIs need APIs that are accepted and universally used on European (and international) level. Some HEIs already use Open Education API standards.³⁷⁵ However, not all do which limits potential cooperation. A specific issue is the need for a clear guidance and direction on the different platforms used for EU cooperation in higher education. Current work on it is scattered and highly fragmented, with administrative procedures, ICT structures, legal attributes, etc.

Achieving interoperability remains also a challenge because in some countries, HEIs are permitted or even obliged to work with the government-approved student authentication methods (such as CZ, DE), while in others, higher education cannot access these same authentication methods (such as NL). Common and interoperable systems in higher education will increase coherence, reduce friction, and offer additional flexibility for European students and staff.

European HEIs need to accelerate research and innovation in strategic technologies to develop Europe’s digital capacities towards tech sovereignty. While Europe is home to many innovative HEIs,³⁷⁶ too many European countries still experience dependency on other world regions for several strategically important digital capacities and products, including web platforms, microchips, and semiconductors. Digital societies require research and innovation into digitalisation of public sector, of social services and into the citizenship and civic engagement in democracies in digital era. To realise the digital transformation of Europe in social, political, and economic spheres, European HEIs, need to be empowered to play a key part, in partnership with industry, civil society, non-governmental and public sectors.

Partnerships are needed among HEIs to pool resources and between HEIs and industry to exchange knowledge and to ensure that Europe’s innovations materialise within Europe’s industry. They are also necessary between higher education and societal stakeholders to ensure that digitalisation provides equality of opportunities, conforms to ethical conduct, and upholds democratic principles.

8.2. Progress to date

In 2020, the European Commission published the **Digital Education Action Plan (2021-2027)** which offers a long-term strategic vision for high-quality, inclusive, and accessible European digital education. The Plan addresses the challenges and opportunities of the COVID-19 pandemic, seeks stronger cooperation at the EU level on digital education, and underscores the importance of working together across sectors to bring education into the digital age. It presents opportunities, including improved quality and quantity of teaching concerning digital technologies, support for the digitalisation of teaching methods and pedagogies and the provision of infrastructure required for inclusive and resilient remote learning.³⁷⁷

The Digital Education Action Plan focuses on fostering the development of a high-performing digital education ecosystem and enhancing digital skills and competences for the digital transformation as its two key priorities. The Plan is fully aligned with the Commission’s political priority ‘*A Europe fit for the Digital Age*’³⁷⁸ and is a key building block in realising the *European Education Area* by 2025.³⁷⁹ It contributes to achieving the goals of the *European Skills Agenda*, the *European Social Pillar Action Plan* and the ‘*2030 Digital Compass*’.

³⁷⁵ <https://openonderwijsapi.nl/en/>

³⁷⁶ <https://www.reuters.com/innovative-universities-2019>

³⁷⁷ https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en

³⁷⁸ https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_en

³⁷⁹ https://ec.europa.eu/education/education-in-the-eu/european-education-area_en

The first priority of the Digital Education Action Plan is **fostering the development of a high-performing digital education ecosystem**. As part of the implementation of this priority, the Commission has launched a feasibility study on a possible EU Exchange Platform. Amongst the goals of the possible Platform would be to share certified online resources and, in a later stage, link existing education platforms. The study takes into account the needs of providers, learners, educators, and all relevant education and training stakeholders.

The analysis of the data collected thus far has suggested that the need for a European Exchange platform is highest in the higher education sector. More specifically, higher education stakeholders pointed out that there is a need for a platform that allows for increased cooperation and information sharing across EU HEIs. Currently, even HEIs participating in the European University Alliances do not have simplified means to always stay connected and share their expertise with the higher education community. Through community building, HEIs could establish and unify common digital content standards, and share information, best practices, and teaching materials.

Under the second priority of the Digital Education Action Plan, **enhancing digital skills and competences for the digital transformation**, ongoing initiatives address the challenge of meeting the labour force demand in STEM and ICT through education, by boosting the basic and advanced digital skills development of citizens. For example, the Commission is in the process of preparing a Proposal for a Council Recommendation on improving the provision of digital skills and competences. It will reflect the understanding that computational thinking is not only for tech enthusiasts or for those who want to become engineers.

Another action of the Digital Education Action Plan includes the scaling up of the Digital Opportunity Traineeships (DOTs), which aim at giving students of all disciplines the opportunity to get hands-on digital experience in industry in fields demanded by the market. The scheme is being gradually expanded. Another issue high on the agenda is gender equality in STEM and ICT. The Commission is promoting better inclusion of women in ICT studies and careers.

Work is also ongoing on updating the Digital Competence Framework (DigComp) which will articulate what competences citizens should be equipped with, so they can actively participate in the digital world. The update of the Framework ensures that emerging trends such as artificial intelligence, data use and management, and robotics are reflected in the framework. Finally, work is underway in developing guidelines on promoting digital literacy in education.

The **European Skills Agenda**³⁸⁰ is a five-year plan that supports the green and digital transitions with initiatives such as the *Pact for Skills*.³⁸¹ It helps mobilise the private sector and other stakeholders to upskill and reskill Europe's workforce. The **European Pillar of Social Rights Action Plan**³⁸² supports the development of basic digital skills for the workforce. Moreover, the *European Industrial and SME strategy*,³⁸³ the *European Strategy for Data*³⁸⁴ and the *Coordinated Action Plan on Artificial Intelligence*³⁸⁵ also include actions targeted to improve digital skills among the population and workers. Finally, '*2030 Digital Compass: the European way for the*

³⁸⁰ COM/2020/274 final - <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0274>

³⁸¹ <https://ec.europa.eu/social/main.jsp?catId=1517&langId=en>

³⁸² COM/2021/102 final - <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0102>

³⁸³ COM/2021/350 final - https://ec.europa.eu/info/sites/default/files/communication-industrial-strategy-update-2020_en.pdf

³⁸⁴ COM/2020/66 final - <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593073685620&uri=CELEX%3A52020DC0066>

³⁸⁵ COM/2021/205 final - <https://ec.europa.eu/newsroom/dae/redirection/document/75787>

*Digital Decade*³⁸⁶ presents the European Commission's vision and avenues for Europe's digital transformation by 2030 based on skills, infrastructure, business and government.

The European Institute of Technology of Innovation (EIT) has established *EIT Digital*³⁸⁷ as a leading European digital innovation and entrepreneurial education organisation driving Europe's digital transformation. This pan-European ecosystem includes over 200 top European corporations, SMEs, start-ups, HEIs, and research institutes, and provides a space where students, researchers, engineers, business developers and entrepreneurs collaborate in an open innovation setting. EIT Digital aims to realise the European Digital Decade which includes turning ground-breaking digital tech innovations into market success, supporting European deep tech scale-ups to become global digital champions and growing digital talents into Europe's tech entrepreneurs of the future. As regards the skills and education programmes, the EIT Digital focuses on the digital high-end degree education for master and doctoral graduates and high level professionals. Students learn the digital skills from an entrepreneurial perspective and integrate technical competencies in key digital areas with business model thinking.

8.3. What is needed to support HEIS to be actors of change in the Digital transition

Higher education must play a critical role in helping Europe achieve its ambitions on the Green Deal, Digital Decade, strengthening of European democracy and Europe's role in the world. Digital higher education is an essential part and a building block of realisation of the *European Education Area*, the *European Research Area*, and the *European Higher Education Area*.

European HEIs need to comprehensively digitalise to boost their own efficiency, and implement student-centred, technology enabled learning and teaching. They also need to strengthen their capabilities to research and innovate. The imperative for HEIs to support Europe's Digital Decade, by equipping Europeans with digital skills, driving research and innovation in strategic digital technologies, green technology solutions, and establishing Europe's tech sovereignty. Strong digital capacities, ranging from digitally skilled citizens to innovative digital technology research within its universities, contribute to Europe's technological advancement and to its resilience.

Digitalisation of HEIs is a necessary condition for successful transnational cooperation in higher education and research. Transnational cooperation in higher education and research is one of Europe's comparative advantages compared to the rest of the world. It creates opportunities for synergies, cross-fertilization and peer learning, and enables realisation of a genuinely European dimension in higher education and research.

The European Union can offer financial support, helpful guidance, and efficient coordination of joint efforts among Member States, HEIs, and stakeholders, towards Europe's digital transformation. To address the gaps in digitalisation of higher education, the EU can:

1. Support the aim to equip **Europeans with basic or advanced digital skills**. *A European approach to micro-credential* is an especially promising opportunity for advancement of digital skills (see *Council Recommendation on micro-credentials*) as is the *Erasmus+ traineeship program for students and staff*³⁸⁸, e.g., through Erasmus+, Digital Europe Programme, EIT-KICs and the *European Open Science Cloud (EOSC) partnerships. Pact for Research and Innovation in*

³⁸⁶ COM/2021/118 final - <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52021DC0118>

³⁸⁷ <https://eit.europa.eu/our-communities/eit-digital>

³⁸⁸ https://ec.europa.eu/programmes/erasmus-plus/opportunities/traineeships-students_en

Europe (see Council Recommendation on a Pact for Research and Innovation in Europe)³⁸⁹ also should include digital skills development to upskill and re-skill lifelong learners.

2. Digital technologies have enabled democratisation of access to knowledge also through Massive Open Online Courses (MOOCs). While Europe has been lagging in MOOCs compared to other world regions, especially the United States, the European Union could explore a launch of a **trusted European platform** offering access to high quality, user-friendly, European-branded education courses, and content. This would further support digital skills development by learners and academic staff and raise the global visibility and attractiveness of European higher education. As regards support to interoperability solutions, this platform should be compatible with the European Open Science Cloud (EOSC).³⁹⁰

3. Action is needed to develop **digital solutions for transnational cooperation in higher education and research**. Support can be offered to Member States and HEIs in co-creating guidelines and mutually agreed principles for allowing mutual access to services (such as identity management or education provision) and content, and enabling seamless knowledge and data exchange. This could build on EOSC and should consider the need to respect institutional autonomy of Europe's universities.

Success stories of transnational projects developing skills and competences for the digital transition

Neurotech^{EU} - The European University for Brain & Technology³⁹¹ is a European Universities Alliance funded through Erasmus+ and Horizon 2020 and involves eight universities and more than 250 affiliates. Its Graduate School trains students in a multidisciplinary, international and inter-sectoral setting, and graduates will have an inter-sectoral experience with a strong multidisciplinary research background. The Lifelong Learning Centre will organise certificate programs, micro-degrees, boot camps, and offer internships, research opportunities and transferable skill training. Neurotech^{EU} Spaces will be the online meeting spot for all students, learners, staff and researchers at Neurotech^{EU}.

EIT Digital³⁹² provides online and blended education opportunities at Masters and Lifelong Learning levels. EIT Digital on Coursera provides online and blended innovation and entrepreneurship education to raise quality, increase diversity and availability of the top-level content provided by their partner network. The Professional School³⁹³ offers courses in a blended model that combines face-to-face courses with online introductory modules on leading-edge digital developments. EIT Digital School³⁹⁴ focuses on the digital high-end degree education for master and doctoral graduates and high-level professionals.

Expanding the Research and Innovation Capacity in Cultural Heritage Virtual Reality Applications (eHeritage)³⁹⁵ is funded by Horizon 2020. It uses advances in information technology and progress in virtual reality applications to bring new life to history, making it easier to preserve Europe's cultural heritage. By creating applications for cultural heritage sites, eHeritage contributes to the spread of

³⁸⁹ COM(2021) 407 final 2021/0230 (NLE) - https://ec.europa.eu/info/sites/default/files/research_and_innovation/strategy_on_research_and_innovation/documents/cc_rtd_pact-for-research-and-innovation.pdf

³⁹⁰ https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/european-open-science-cloud-eosc_en

³⁹¹ <https://theneurotech.eu/>

³⁹² <https://www.eitdigital.eu/online-education/>

³⁹³ <https://professionalschool.eitdigital.eu/>

³⁹⁴ <https://masterschool.eitdigital.eu/>

³⁹⁵ <http://www.eheritage.org/>

knowledge in the fields of history and arts. The department specialized in these techniques is based in Romania, and provides the first step in consolidating this research field in Eastern Europe.

BlockChain Network Online Education for interdisciplinary European Competence Transfer (BlockNet)³⁹⁶ is funded by Erasmus+. The Blocknet project develops an interdisciplinary small network online course (SNOC) covering disciplines that are most relevant to both the practice of developing of information systems and technologies and their application in business. Its implementation gives the participants an opportunity to deepen their knowledge on blockchain and broaden the relevant knowledge by learning from project's immediate and associate partners as well fostering international collaboration within the project.

9. Universities as drivers for Europe's global role and leadership

9.1. Need to ramp up Europe's HEIs' global ambition

Universities and other types of HEIs have long been internationalised institutions, materialised through their international connections and the welcoming of foreign students and scholars.³⁹⁷ The intensification of the internationalisation of HEIs³⁹⁸, both in quantitative (more mobility of students and researchers, more activities with an international dimension), and qualitative terms (internationalisation is closer to the core of institutional strategies) is aligned, inter alia, with an increased awareness of competition from outside the EU and echoes stakeholder feedback to the consultation.

Europe has a distinctive feature of combining internationalisation and regionalisation, while European mobility and European cooperation are anchored in higher education life for more than three decades³⁹⁹. Far from interrupting those trends, the COVID-19 crisis has shown the need and demands for internationalisation as well as HEI capacities to innovate in their international activities.⁴⁰⁰

Europe's HEIs being open to the world is important not only to foster their own development and success but also to build a strong global Europe. The changing global political order and the needs of the global market economy are calling for Europe to redefine its role. To harness complex global challenges, to consolidate a strong and responsible position on the global scene, and to ensure strategic autonomy, HEIs are instrumental for Europe's global role.

In order to maintain a leading position on an ever more competitive global higher education market, and in order to contribute to Europe's global influence in troubled times, Europe's HEIs need to ramp up their global ambition, and to get support from national and European levels.

9.2. State of play: HEIs and global dimension

Internationalisation as a strategic priority for HEIs

³⁹⁶ <https://www.knf.vu.lt/en/blocknet#home>

³⁹⁷ "Being part of an international knowledge community is an idea that is deeply embedded in the identity of modern universities"
<https://eua.eu/downloads/publications/pathways%20to%20the%20future%20report.pdf> p.8

³⁹⁸ <https://doi.org/10.1080/23322969.2020.1820898>

³⁹⁹ Transnational cooperation amongst European HEIs, while being part of a comprehensive definition of internationalisation is addressed in the transnational cooperation chapter of the present document.

⁴⁰⁰ For instance: <https://nesetweb.eu/en/resources/library/the-impact-of-covid-19-on-higher-education-a-review-of-emerging-evidence/> chapter 4,

A 2015 study for the European Parliament on “the state of internationalization in higher education” clearly showed internationalisation is a priority for Europe’s HEIs. It promoted a new agenda for the future, with the following definition for internationalization: “The intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff and to make a meaningful contribution to society”.⁴⁰¹

What “internationalization” of HEIs means has indeed evolved in the last decades. The key message conveyed by both literature and stakeholders’ surveys is that internationalization has become more and more of a strategic issue. When it used to be considered one among many external driven processes HEIs are experiencing, it is now considered a major strategic priority. Internationalization and international cooperation are considered a pre requisite for high quality research and teaching and learning. More and more stakeholders and Member States acknowledge that promoting international mobility and international partnerships are not only objectives per se, and that fostering a holistic international dimension throughout all the missions and activities of Europe’s HEIs is crucial to better prepare the learners for the future. It also makes HEIs stronger and more innovative. To summarize, internationalisation has evolved from “being a marginal activity to becoming a key aspect of the reform agenda”, and a “key agent of change”⁴⁰² and there has been a “shift from relatively haphazard international partnerships and random capacity-building activities to more strategic approaches to internationalisation in a growing number of universities”⁴⁰³.

HEIs’ key role for Global Europe

Thinking about higher education and Global Europe also relates to HEIs being instrumental in building a stronger Europe in the world.

By producing and diffusing high quality knowledge, by collaborating with partners worldwide, **HEIs are part of Europe’s strategy to address global challenges.** Global challenges call for global solutions. Developing and implementing global solutions will require the joint efforts of the best creative and entrepreneurial minds from around the world. To tackle the challenges related to green and digital transitions and to strengthen technology-driven competitiveness, Europe needs more than ever to reach out to the rest of the world, to increase cooperation with like-minded partners while boosting the capacity of new and emerging centres of excellence in partner countries

Taking place in multiple arenas at the national and international level, discussions and contributions on the role of universities to address global challenges are many.⁴⁰⁴ A major issue for universities to fulfil this role is international cooperation. European institutions alone, or cooperating among themselves without global partners will not give their full potential. This point was emphasised in the consultation with European HEIs, including European universities, all stating their need for support to international cooperation.

Europe is a pace-setter in HE cooperation. For many countries and HEIs worldwide, the European experience can inform their own moves towards internationalisation or regional

⁴⁰¹ [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU\(2015\)540370_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf)

⁴⁰² <https://doi.org/10.1080/23322969.2020.1820898>

⁴⁰³ DOI: 10.1057/978-1-137-59472-3_4

⁴⁰⁴ See for instance the activities and publication of the GUNI network, an international think tank with strong expertise in the implementation of the 2030 Agenda and the SDGs in higher education, <https://www.guninetwork.org/topics>

cooperation. This in turn boosts Europe's attractiveness not only as a study destination, but also as an attractive cooperation partner for education, research and innovation.

Universities play vital role in generating the scientific evidence that underpins Europe's foreign and security policies, international agreements, and multilateral action. As key players in **science diplomacy**, they connect Europe to the world. More generally, by exchanging talents from all over the world, building strong bridges with partner countries across the globe, and by promoting academic and European values, **universities are part of Europe's soft power**. Using the notion⁴⁰⁵ of 'soft power of higher education'⁴⁰⁶, scholars have analysed the role of HEIs and higher education in EU foreign policy. They for instance show how due to people-to-people contact, Erasmus+ participants are most likely to become EU informal ambassadors, and carriers of EU soft power in neighbourhood countries leading to changes in cultural and social perception⁴⁰⁷, and how communities of *alumni* built around the Erasmus+ Programme are pivotal in the growing role of higher education in sustaining the EU's relations with its strategic partners.⁴⁰⁸

International cooperation in the field of higher education is an effective tool for supporting the EU's **public diplomacy efforts** around the world. It acts to encourage support for EU policies beyond the Union's borders, notably those in the fields of enlargement and the neighbourhood, **international development**, migration and intercultural dialogue. In partner countries, cooperation in higher education is key to strengthening skills acquisition and development in line with the United Nation's (UN) Sustainable Development Goals.

As for the R&I mission of universities, **the vision for research excellence is also aiming at Europe's global leadership**, calling Europe's universities to be world leading in delivering excellent research and providing cutting-edge research-led education. The concentration of the top 200 HEIs in the older EU Member States, along with the higher share of excellence-based funding should be addressed and the future should be a more balanced and equitable demonstration of top HEIs across all of the EU Member States.

Fast changing and competing global landscape for higher education

At the moment when the contribution of HEIs has maybe never been so important, there is nevertheless the risk that this role could be challenged in different ways because of a lack of awareness of the changing global landscape. With the rapid rising of fierce competitors (both old ones and new ones) on the global higher education and research market, the old powerful European position and the traditionally strong assets of Europe's HEIs are more and more challenged, as knowledge production centres in the global competition, and as welcoming institutions for international students.

In terms of attractiveness, Europe has indeed to consolidate its ambition and strategy. The total number of students in the world is rising (estimated to triple in the next two decades and reach an estimated 594 million in 2040)⁴⁰⁹, and so is the number of mobile international students now close to five millions students studying abroad⁴¹⁰, twice the number 10 years ago. Predictions are for a

⁴⁰⁵ initially coined to discuss the US universities case, by the scholar who invented the soft power concept

⁴⁰⁶ <http://forum.mit.edu/articles/soft-power-and-higher-education/>

⁴⁰⁷ https://heinonline.org/HOL/Page?handle=hein.journals/ijelp12&div=10&g_sent=1&casa_token=&collection=journals

⁴⁰⁸ https://doi.org/10.1007/978-3-030-66061-1_4

⁴⁰⁹ https://ec.europa.eu/education/education-in-the-eu/european-education-area/european-universities-initiative_en

⁴¹⁰ <https://doi.org/10.1787/974729f4-en>

further increase to at least 8 million in the next decade.⁴¹¹ Europe is threatened, losing ground in terms of being a study destination and attracting talent. Currently Europe attracts 45% of all international students worldwide.⁴¹² The EU higher education offer attracted 1.3 million foreign students undertaking tertiary education in EU-27 institutions already in 2018 (25 % from Asia and 15 % from Africa). Similarly the EU is an important destination for the countries neighbouring the EU (i.e. Ukraine is the third largest country of origin for students studying in the EU, after China and Germany). But as the options for study increase, Europe's HEIs will need to become more competitive to attract the best talent from around the world. Indeed "the needs of increasingly knowledge-based and innovation-driven economies have spurred demand for tertiary education worldwide", and at the same time, economic, technological and cultural factors "have contributed to making international study substantially more affordable and easier to access than in the past".⁴¹³ In the meantime, some competitors are developing very ambitious and offensive strategy to attract those international students and gain influence.

An emblematic case is the China's belt road initiative (BRI) which provides an example of "long-term strategic and well-resourced policy to promote China's higher education system and its broader economic and diplomatic interests".⁴¹⁴ "The country attracts a growing number of international students (from 52,000 in 2000 to almost 500,000 in 2018)", and China's strategic ambition to become a global powerhouse in higher education is supported by the global spread of Confucius Institutes, which offer Chinese language and cultural teaching in almost 550 HEIs across the globe".⁴¹⁵

9.3. What has been achieved so far

Key EU policy contributions

HEIs are involved in the international mobility of students and researchers, in annual cooperation projects, as well as in joint international publications and international research projects. As such, they are instrumental in building strong bridges with partner countries across the globe and promoting academic and European values. Their input into Europe's soft power is significant, but can be further boosted, in particular through a Team Europe approach, as highlighted in recent European Commission Communications, and equally mentioned in the single multiannual indicative programme (MIP).

The Communication on Achieving the European Education Area by 2025⁴¹⁶ states that education has a geopolitical dimension, and highlights that "Action at EU level should be geared towards creating a Team Europe approach, fostering greater cooperation with EU Member States on the external activities of education and training institutions in different parts of the world thereby strengthening the positioning the EU as a partner in education at global level."

The Communication on the Global Approach to Research and Innovation⁴¹⁷ highlights that "The new global approach to research and innovation (...) will strengthen the global capacity to deliver

⁴¹¹ <https://doi.org/10.1080/23322969.2020.1820898>

⁴¹² https://ec.europa.eu/education/policies/international-cooperation/making-eu-more-attractive-foreign-students_en#:~:text=Europe%20currently%20attracts%2045%25%20of%20all%20international%20students,world.%20How%20the%20Commission%20promotes%20European%20higher%20education

⁴¹³ <https://doi.org/10.1787/974729f4-en>

⁴¹⁴ <https://www.hks.harvard.edu/centers/mrcbg/publications/awp/awp161> , p. 72

⁴¹⁵ *ibid* p. 63.

⁴¹⁶ COM(2020) 625 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625>

⁴¹⁷ COM(2021) 252 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:252:FIN>

solutions to the shared challenges facing humanity and strengthen the EU's positive influence in the world". It stipulates that a global approach will be implemented, inter alia through "initiatives modelled on a Team Europe approach, which combine actions by the EU, financial institutions and Member States to maximise the effectiveness and impact of the actions".

Furthermore, the Communication on the strengthened European Research Area "A new era for Research and Innovation"⁴¹⁸ underlines that "To foster global leadership, the ERA also needs to better incentivize its high-quality researchers and innovators to work together and become a pole of attraction for the world's best talents".

International dimension of higher education – actions and their impact

Erasmus+ international cooperation actions cover the world. In the field of higher education Erasmus+ international cooperation has meant promoting the mobility of students, young people and staff, funding capacity building actions, encouraging joint degrees, supporting the modernisation and internationalisation of higher education systems in partner countries. It has also meant establishing mutually beneficial partnerships with European partners, in line with the ambition of a stronger Europe in the world.

The mid-term and ex-post evaluations of Erasmus+ show that the international dimension of the programme has clearly contributed to human development in third countries not associated to the programme with high effectiveness and value for stakeholders.

Erasmus+ international activities are currently backed up by € 2.2 billion from NDICI and IPAIII, by policy dialogues with key countries and regions, and by efforts to raise visibility and extend the reach of EU projects and initiatives with all parts of the world.

There has been a strong and measurable impact in other parts of the world, through actions promoting **mobility of students**, and academic staff. Short-term "credit" mobility: the International Credit Mobility (ICM) action has supported over 266,000 participants since 2015 including students and staff.

For longer term Master degree mobility, the ***Erasmus Mundus action*** offers full Master scholarships, typically for two years. This type of degree seeking mobility is essential in development of skills and know-how. In more than fifteen years of activity, Erasmus Mundus consortia have offered more than 28,000 scholarships to students from 183 countries around the world. From 2021 on non-European partners are invited to play a full part in consortia, host students for up to half the length of the Master degree and issue joint or multiple degrees alongside their European counterparts. This is a significant change and reflects the **global ambitions of HEIs in Europe**.

Capacity building actions (around 150 projects every year) are mutually beneficial partnerships with European partners, which help modernise and internationalise HEIs and systems in partner countries, and strengthen the role that higher education plays in the economy society in general.

Every year Erasmus+ funds **cooperation projects** between Europe and the rest of the world worth around € 400 million. Between 2014-2020 the programme funded 900 capacity building projects for higher education, and 906 capacity building projects for youth in Neighbourhood regions, Asia, Africa and Latin America.

⁴¹⁸ COM(2020) 628 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A628%3AFIN>

In addition to the programme opportunities afforded by Erasmus+, the EU maintains active **policy dialogues**, which support system-wide processes of education analysis and reform, in particular in Africa, the Western Balkans and the Neighbourhood countries in order to strengthen prosperity, stability and security. These policy dialogues bear a significant weight in raising the visibility and extending the reach of EU projects and initiatives with all parts of the world. They also support the process of widening the association of non-EU countries to the European Education Area (especially those of the Western Balkans), which is an integral part of the 2025 vision.

Closely-linked to the EU's programmes supporting education mobility are the **Marie Skłodowska-Curie Actions**, which support the training and mobility of researchers in all scientific domains, at all stages of their careers and from all over the world. For the period 2014-2020, MSCA supported:

- 65,000 mobility opportunities, including 25,000 doctoral candidates and 1,000+ international doctorates.
- 1,000+ Innovative Training Networks bringing together HEIs, research institutes and other sectors from across the world.

9.4. What is needed: boosting European HEIs influence and impact through a Team Europe approach

Internationalisation makes universities stronger and prepares the learners for a global future. HEIs across Europe are adapting to a rapidly changing world. HEIs also bring a major contribution to strengthening Europe's global role. But at a moment of uncertainties of the changing global political order and of the global economy, Europe needs to redefine its global role. This also corresponds to a moment of intensifying competition on the higher education global market to attract talents and have influence, and more strategic priority needs to be given to strengthening the global status and ambition of Europe's HEIs.

It is particularly needed to **better articulate the new approach to European transnational cooperation and the global ambition of European HEIs**. Deepening cooperation among European institutions therefore goes hand in hand with consolidating their global dimension. As emphasised by stakeholders very clearly during the consultation, there is a large consensus that through innovative formats like the European Universities and other alliances, backed by adequate funding mechanisms, HEIs will be stronger together and be more visible and competitive on the global scene. This will boost high-quality international cooperation in the whole HE sector.

This also allows to build upon and foster Europe's reputation of excellence in regional cooperation, and feed in regional policy dialogues on how to better support regionalisation in other parts of the world. This also requires to join national and European forces to consolidate HEIs' **global attractiveness, competitiveness, and engagement**. This is key to attract and retain talented students, academics and researchers to be able to maximise Europe's research influence, societal and industry impact. HEIs and transnational alliances indeed need more resources and coordinated support from the EU and the Members States for developing themselves as attractive, innovative and engaged global players, following on from what has been done with 'Study in Europe'.

The objective of strengthening the global ambition of Europe's universities is also at the heart of different stakeholders' initiatives aiming at **consolidating the role of universities in European science diplomacy agenda**. They highlight that Europe's universities are among key stakeholders

in science diplomacy global networks⁴¹⁹, and that there is a need to “bring in universities”⁴²⁰ in science diplomacy-related developments in the implementation of EU Global Approach in Research and Innovation⁴²¹.

The ambition to ramp Europe’s universities with the coordinated support of the European and national level **is articulated to the new European global strategy, “the Global Gateway”**⁴²². This was set out by the Commission in December 2021 to reach the European objective to build a strong Europe in the world.

With this strategy, the EU is stepping up its offer to its partners with major investments in infrastructure development around the world. Global Gateway is very important for the higher education sector since education and research are among Global Gateway investment priorities. The Global Gateway communication indeed states that “**Erasmus+** strengthens societal links and promotes the EU's soft power and the attractiveness of its model of society”⁴²³, and that “As reflected in the EU's strategy on international cooperation on **research and innovation** ‘the ‘Global Approach’, the EU is a major catalyst to increase scientific excellence and addressing global challenges while enhancing economic growth and job creation”⁴²⁴.

In terms of resources, this strategy aims at scaling up the international arm of Erasmus+ 2021-2027 with a total funding of € 2.2 billion coming from EU's external instruments in order to reinforce the European offer of mobility and cooperation in education, training, youth and sport around the world. In terms of approach, The Global Gateway will be delivered through a **Team Europe approach**, which brings together the EU and EU Member States with their financial and development institutions, also seeking to mobilise the private sector.

Following the ‘Study in Europe’ initiative⁴²⁵, and inspired by the approach developed in the international cooperation and aid domain, European higher education global influence would benefit from the setting of a Team Europe approach aligning better priorities and instruments.

Europe is the biggest provider of cooperation on higher education (mainly through scholarships), with major programmes at EU level (Erasmus+, MSCA) and via Member State agencies for scholarships and staff mobility, as well as funding for collaborative projects involving partnerships of higher education stakeholders from Europe and other regions. But Europe’s visibility and impact should however be scaled up to actively contribute to the achievement of the sustainable goals both in Europe and in support to our partner countries.

A Team Europe approach can help give a strategic push, funnel the available finances in an effective way and channel EU and Member States actions towards existing and emerging global challenges by strengthening the links with the rest of the world, reflecting the objectives of the EU Global Strategy, as well as the 2030 Agenda and its Sustainable Development Goals (SDGs).

⁴¹⁹ [Nurturing-the-EU-Science-Diplomacy-Community_EU-SD-Alliance.pdf \(s4d4c.eu\)](#)

⁴²⁰ [Viewpoint: Science diplomacy needs a refresh to meet contemporary European needs | Science|Business \(sciencebusiness.net\)](#)

⁴²¹ COM(2021) 252 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:252:FIN>

⁴²² https://ec.europa.eu/info/sites/default/files/joint_communication_global_gateway.pdf

⁴²³ Id.

⁴²⁴ Id.

⁴²⁵ Many European countries actively promote their own higher education offer. The Commission’s ‘Study in Europe’ initiative provides a platform to promote and provide information on European countries’ higher education systems and activities. The platform helps for instance to inform about European study destinations. In addition, Study in Europe enables the EU and individual European countries to take part in study fairs worldwide to promote higher education in Europe. The Commission also networks with national agencies throughout Europe to share ideas on how to make European higher education more visible: https://ec.europa.eu/education/study-in-europe_en ; <https://www.studyineuropefairs.eu/>

Team Europe is about creating meaningful partnerships, leveraging the EU’s collective weight and strategic interests in the (joint) policy dialogue with partner countries. It enhances coordination and optimal use of our respective resources for sustainable impact and will foster joint decision-making and priority-setting to push ahead on learning outcomes, equality in education, skills for jobs, and the overarching need for more domestic funding for education in partner countries.

These needed development goes with awareness and **responsibilities in relation to what are driving incentives for internationalization, in relation to values**. Traditional values of international higher education such as “cooperation, peace and mutual understanding, human capital development, and solidarity”, have sometimes been “moved to the side-lines as universities strive for competition, revenue, and reputation/branding”.⁴²⁶ In the same way, there is a risk that fundamental academic and European values might be considered secondary in the fierce global competition for knowledge and talent. In alignment with the core objectives of the EU global strategy, to reconcile European values and European interest, and following the key idea that universities are key actors of the European way of life, a strong European approach is needed, stating that the ‘inclusive excellence approach’⁴²⁷ is, in many ways, a comparative advantage for Europe’s global influence.

Success stories of transnational projects driving Europe’s global role and leadership

EUTOPIA⁴²⁸ is an Erasmus+ and Horizon 2020 European Universities Alliance seeking to create a 2050 vision of a federated inter-university campus that is geared to future challenges, student-centred and empowering, attentive to the plurality and potential of Europe’s regions, and committed to the principles of openness and inclusion. It will create a learning community, knowledge communities, powerful place-making partnerships, decisive inclusivity actions, and ambitious international networking. EUTOPIA is active in pursuing Europe’s goals of global outreach by showcasing European values and by seeking to be more diverse and attractive to top researchers and students from around the world.

The EU, Mediterranean and Africa in the Global Age (AMENET)⁴²⁹ is an Erasmus+ Jean Monnet Action, which involves the study of the integration process of the EU as a Common Market, as a Single Market and as an Economic and Monetary Union. Thirteen European and African universities in the network promote European studies and its importance for building African integration processes, and for developing Africa, Mediterranean and Europe regional integration.

Modernisation of higher education in Central Asia through new technologies (HiEdTec)⁴³⁰ is funded by Erasmus+ capacity building in higher education. It brings together European higher education partners to work alongside universities and education ministries from five Central Asian countries. It is preparing for the impact of the digital transformation both on teaching and on education. HiEdTec is creating Centres for Innovative Education Technologies (IET Centres), a Digital Competence Framework for Citizens and a Digital Education Action Plan to support university lecturers to adopt effective digital teaching methods, open pedagogies and tools.

Promoting Energy Efficient Lighting Education in Nepal and Bhutan (ELNAB)⁴³¹ is an Erasmus+ Capacity Building for Higher Education project. The project involves four universities from Nepal and Bhutan, and Finnish, French and Greek partners. The project designs curricula, and teaches

⁴²⁶ [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU\(2015\)540370_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf)

⁴²⁷ See chapter on Inclusiveness, diversity and gender equality in this document.

⁴²⁸ <https://eutopia-university.eu/>

⁴²⁹ <https://www.amenet.eu/>

⁴³⁰ <https://hiedtec.ecs.uni-ruse.bg/?cmd=gsIndex>

⁴³¹ <https://www.jnec.edu.bt/en/el nab/>

university staff in this high-growth area to train new technicians, producers, regulators and energy providers. Final beneficiaries of the project are professionals in the building industry chain, lighting industry equipment producers and lighting efficiency service providers, and government officials, energy regulators, and NGOs.

10. Data and monitoring

Education and training are above all engines for personal development, but their value and benefits go well beyond individuals, benefiting all in society.⁴³² Higher education institutions (HEIs) serve many purposes, unlocking opportunities and contributing to a range of social, cultural, and economic objectives. They play a significant role in tackling challenges presented by, for example, globalisation, technology and digitalization, demographic change, migration and urbanisation.

10.1. The need to pool European higher education data expertise

The EU has been to the forefront of new thinking and tools that support and promote European higher education across the EU and around the world. European statistics provide detailed information on participation in tertiary education, learning mobility, expenditure, teaching staff and R&D. The European statistics are collected in the European Statistical System and published by the Statistical Authority of the European Union, Eurostat. In recent years, higher education flagship projects have been established and matured, each innovative, each making an important contribution to our knowledge and understanding of higher education, and each with a receptive audience. There is now an opportunity to capitalise on their successes, individually and collectively, and it is timely to now pool their experiences and expertise.

A source of reliable and verifiable information on and for European higher education would aid benchmarking and peer-learning and support strategic decision making at all levels of government and by all higher education institutions. Importantly, it would provide a comprehensive source of information for learners and other stakeholders across the EU, showcase European higher education internationally, and facilitate transnational cooperation and mobility

10.2. What has been achieved so far: Existing databases on higher education in Europe

Currently there are several databases covering different aspects of higher education systems and institutions. Some of them mainly provide quantitative data, while others include qualitative information. It is vital to improve synergies and interoperability among them. The possibility of having access to a wide, complete, and integrated database (a one-stop access point) would be a major value added for the higher education sector. The main features and purposes of the main higher education databases follow.

The European Tertiary Education Register (ETER)⁴³³ it is a generic resource for the analysis of higher education systems and institutions. Launched in 2011, ETER now includes 2,964 HEIs in 37 European countries (EU, EEA/EFTA, UK, Accession Countries). It provides information on geographical position, educational activities, staff distribution, research activities and finances. It covers the period from the academic year 2011/2012 to academic year 2016/2017. Data for the years 2017-2019 is expected to be published in spring 2022⁴³⁴. A 2019 JRC report showed that for

⁴³² https://www.consilium.europa.eu/media/31409/investment-in-human-capital_eurogroup_31102017_ares.pdf

⁴³³ <https://www.eter-project.com>

⁴³⁴ [European Tertiary Education Register \(ETER\) Handbook for Data Collection.](#)

some countries, no data (BE-FR, ME, RO) or very limited data (AL, DK, IS, MK, TR) is available. For most countries, the coverage of HE at the ISCED 6 (bachelor), ISCED 7 (master) and ISCED 8 level (doctorate) is above 90% of the enrolled students, while coverage at the ISCED 5 level (short diplomas) is lower⁴³⁵. Usage by scholars has also been increasing in recent years, with over 170 scholarly publications mentioning ETER in the last ten years.

U-Multirank⁴³⁶ provides a multidimensional approach to the international ranking of HEIs. It allows comparing over 1,900 HEIs from 97 countries worldwide across different performance dimensions: teaching and learning, research, knowledge transfer, international orientation, and regional engagement. It provides a user-driven tool to create customised rankings of HEIs.

DEQAR⁴³⁷ it is a qualitative database covering external quality assurance results of HEIs and programmes. Launched in 2018, it provides direct access to the reports and decisions of quality assurance agencies included in the European Quality Assurance Register for higher education (EQAR).

Eurostudent⁴³⁸. Since the 1990s, the Eurostudent project has been collecting and analysing comparable data on the social dimension of European higher education, including the Social and Economic Conditions of Student Life in Europe. The target group includes all students who, at the time of observation (semester), are enrolled in any higher education study programme in a country. Usually that corresponds to programmes at ISCED levels 5, 6, and 7. Eurostudent data has high policy potential but also some methodological limitations.

Eurograduate⁴³⁹. The 2018 pilot survey provided data on higher education graduates in eight European countries to monitor labour market relevance, skills acquisition and effectiveness of learning, transnational mobility and democratic values. In 2022 a second round of graduate surveys will be conducted in 16-18 European Economic Area countries. The European Commission Expert group on Graduate Tracking (2018-2020) recommended that, in the short term, a European Graduate Survey would be “the most appropriate solution to gather comparable graduate tracking information as quickly as possible, since administrative data and indicators – due to lack of homogeneity among the Member States – cannot guarantee comparability, completeness and quality”⁴⁴⁰.

Need for coordination of the existing databases

Better coordination between these existing databases is needed to support the transformation of the higher education sector. Better coordination would indeed help to:

- Monitor the implementation of European policy priorities, such as inclusion, relevance of learning outcomes, careers and employability, synergies with the innovation ecosystems, progress on digital and green skills, and international cooperation.
- Support data needs of Member States and HEIs. During the consultation phase for the Strategy, stakeholders strongly emphasised the need for comparable data available at EU level for benchmarking purposes, as well as for better evidence-based policy making in the higher education sector. Streamlining and upgrading existing internal and some external

⁴³⁵ <https://op.europa.eu/en/publication-detail/-/publication/ea149784-4bc5-11ea-8aa5-01aa75ed71a1/language-en>

⁴³⁶ <https://www.umultirank.org>

⁴³⁷ <https://www.eqar.eu>

⁴³⁸ <https://www.eurostudent.eu>

⁴³⁹ <https://www.eurograduate.eu/>

⁴⁴⁰ <https://op.europa.eu/en/publication-detail/-/publication/c5669b4b-6adb-11eb-aeb5-01aa75ed71a1>

data sources should enable institutions and governments to strengthen their ‘intelligence’ on key topics for institutional transformation and adaptation of national policies.

- Promote competitiveness and attractiveness of HEIs and attracting talent. Better coordinated or integrated databases would enable researchers to compare, analyse, and showcase the higher education sector performance within Europe, as well as to the outside world, in a more comprehensive and accurate way than with existing rankings. It will help to attract talents worldwide and to strengthen the sector’s performance. Added value is highlighted in a JRC technical report (“Synergies between the Knowledge Tools”⁴⁴¹), also providing evidence of the feasibility of realising synergies and streamlining the existing data tools and presents possible ways forward to maximise the effectiveness of some of the current knowledge tools managed by various parties.

There would be two main potential uses of the integrated databases mentioned above. The first requires the integration of indicators/measures defined at the university level in ETER, U-Multirank, DEQAR, Eurostudent and Eurograduate data. In essence, using each dataset independently, relevant indicators/measures could be computed at the level of HEI and then they would be all integrated in a single dataset. This would be possible provided that in each of the 5 datasets a unique a non-ambiguous higher education institution identifier is available (for HEIs that have multiple campuses it would be preferable to have data that are campus-specific).

Such data integration would generate a coherent and complete dataset in which, for every HEI, all the dimensions of higher education for which data are available can be considered together, allowing exploring the relationships between the different indicators/measures available in the 5 datasets. For instance, analysing whether higher education institutions that are characterised by higher quality (according to DEQAR), or higher research excellence (according to ETER), also have a higher employment rate among graduates (available from Eurograduate).

In principle, they would provide data that could be used to monitor (almost) all the Bologna process dimensions. It would make it possible to aggregate the data at the level of region or country (i.e. create regional or country-level indicators, from the 5 datasets), which could be used to analyse the relationship between HEI characteristics and regional/national growth and employment.

The second use could be exploiting micro-data when they are available. For instance, Eurograduate is conceived as a European graduate survey, representative of the underlying graduate population in the country in which it runs. Survey data are very rich in individual-specific information, such as the socio-economic characteristics of the graduate, grades when entering higher education, possibly the mark when graduating, the field of study and the HEI attended, job aspirations, the experience during job search before and after graduation, and the employment status at various moments after graduation (for instance after 1 and 5 years).

When such a rich dataset is combined with ETER or U-Multirank (which is possible only through a unique non-ambiguous HEI identifier), one can increase significantly the range of questions that can be answered. For example, it would make it possible to analyse the impact of socio-economic background on the likelihood of graduating in time (both available in Eurograduate), taking into account the resources devoted to teaching (from ETER), research excellence (from ETER and U-Multirank) and policies directed at supporting students from disadvantaged background (from Eurostudent)

⁴⁴¹ Ojala, T., Pannekoecke, A., *Synergies between the Knowledge Tools*, JRC technical report, 2019.

Need for filling in data gaps and developing new indicators

A deeper analysis of needs and of the data available across the Commission and through stakeholders is needed. Beyond the coordination modalities between the existing databases, it would also be necessary to identify the data gaps across the dimensions of higher education transformation.

For instance, on inclusion and diversity, indicators are well covered by Commission data sources (ETER, Eurostudent, Eurograduate, Eurydice, She-figures). On innovation ecosystem, research data, bibliometric data, data on regional engagement and university-business cooperation is also well covered by Commission data sources (European Tertiary Education Registry, U-Multirank, the European Open Science Cloud (EOSC), RTD studies) as well as other sources (Scopus, Web of Science, Espacenet⁴⁴²).

With regard to Universities and PROs (Public Research Organisations), DG JRC, in collaboration with ASTP, the pan-European association for professionals involved in knowledge transfer, has been working on the development of an EU-wide set of harmonized definitions and indicators for Knowledge Transfer.⁴⁴³ On this basis, a digital platform (KT metrics platform) will allow universities and PROs to track their progress in Knowledge Transfer as well as benchmark with similar institutions working in similar environments. On Green and digital transitions, data availability is more limited. Indicators for the green dimension are currently developed by the European Tertiary Education Registry. U-Multirank collects subject-level data on digital preparedness from students, with limited comparability. On Transnational cooperation, the picture is mixed and many data needs are covered by Eurostat and survey data, the Mobility scoreboard, and Bologna implementation reports, but more is needed to monitor more closely some aspects, like automatic recognition at the level of institutions.

The situation is similar for quality and investment data needs, where basic data needs are covered by Commission data sources, but evidence on innovative pedagogies, quality and excellence in teaching, challenge-based and transdisciplinary approaches, work-based learning would need to be further developed. Streamlining with the European Quality Assurance Registry, founded under the Bologna Process, will provide valuable input on assessment of institutions and programmes.

Another issue for improvement of data collection relates institutional transformation and need for different types of indicators. Several dimensions of the areas of higher education transformation areas are process oriented. To measure transformational progress of institutions, such aspects cannot be fully covered by existing output-based indicators, and new indicators and methodologies have to be developed. For instance, new qualitative and quantitative indicators could be inspired by the experience the European, as testbeds for higher education transformation.

Also the on-going study⁴⁴⁴ measuring progress in institutional transformation for the research and innovation dimension could contribute to the HE data coordination.⁴⁴⁵

⁴⁴² EPO patent database

⁴⁴³ JRC KT Metrics: <https://publications.jrc.ec.europa.eu/repository/handle/JRC120716> .

⁴⁴⁴ “Knowledge ecosystems in the new ERA” (RTD/2020/SC/11), including a work package on “Developing a monitoring methodology on the transformation modules”.

⁴⁴⁵ Institutional transformation areas in R&I: Developing R&I strategies, roadmaps & action plans; Sharing capacity, infrastructure and resources; Strengthening human capital; Reinforcing cooperation with other sectors; Mainstreaming open science practices; Engaging citizens, civil society and public authorities.

Need to integrate data related to expenditure on tertiary education

This new data approach interacts with ongoing developments concerning the monitoring of the European Education Area and the effectiveness and efficiency of investment in Europe. Expenditure data exists either (1) at country level or (2) at the level of each HEI.

At country level two Eurostat databases cover expenditure on tertiary education. The available indicators are the same as for other educational levels. The **UNESCO-OECD-Eurostat (UOE)** data collection includes a wide range of indicators covering public and private expenditure on tertiary education, both at total level and in terms of expenditure per student. However, being an education-specific database, UOE cannot be used to compare educational expenditure with public expenditure in other policy areas (e.g. health, social protection, etc...). Data has a yearly frequency, but is published with a three-year delay (i.e. data is currently available until 2018).

The **Eurostat general government expenditure by function (COFOG)** data collection includes information on public expenditure on tertiary education⁴⁴⁶. Although a lower number of indicators are available compared to UOE⁴⁴⁷, COFOG is the dataset used in the European systems of accounts. Consequently, educational expenditure data is fully comparable with public expenditure in other policy areas.⁴⁴⁸ Data has a yearly frequency and is published with a two-year delay (i.e. data is currently available until 2019).

At HEI level **ETER** provides information on HEI expenditures, divided between personnel, non-personnel and capital, and revenue, divided between core budget, third-party funding, and student fees funding. For this financial data, the specific definitions tailored to tertiary education have been developed in close cooperation with Eurostat and National Statistical Authorities. ETER data can be used for cross-country analyses. For instance, a report based on ETER data provided evidence on the level and composition of revenues in 2015 for more than 1,300 HEIs in 20 European countries and on changes over 2011-2016.⁴⁴⁹ So far, ETER data only cover the 2011-2016 period and financial indicators are only available for a subset of the HEIs.

The Horizon Europe Framework Programme for R&I could also be relevant, in particular its monitoring framework with the Key Impact Pathways⁴⁵⁰, with a legal obligation to monitor i.e. ‘the evolution of researchers salaries’.

For the R&I dimension to monitor progress in institutional changes, a recent study⁴⁵¹ developed a methodology to combine existing output indicators (from sources: ETER, Leiden ranking, LENS.ORG, QS world university rankings, Reuters most innovative universities, RISIS-ETER, RISIS-EUPRO, RISIS-JOREP, Shanghai Ranking, Times Higher Education, U-Multirank) with new process indicators that include a survey based approach. Individual indicators were assessed in terms of fit to the following delineated areas of institutional change in R&I: developing research & innovation strategies, roadmaps, and action plans; sharing capacity, infrastructure, and resources; strengthening human capital; reinforcing cooperation in R&I with other sectors; mainstreaming of

⁴⁴⁶ Data differ between UOE and COFOG because they use a few different concepts and definitions. For more details, see <https://ec.europa.eu/eurostat/documents/3859598/10142242/KS-GQ-19-010-EN-N.pdf>, pp. 90-92.

⁴⁴⁷ For instance, indicators on expenditure per student are not available.

⁴⁴⁸ For instance, public expenditure on tertiary education is available not only as a share of GDP (as in the UOE database), but also as a share of total public expenditure.

⁴⁴⁹ https://www.eter-project.com/uploads/analytical-reports/ETER_AnalyticalReport_02_final.pdf

⁴⁵⁰ https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/evaluation-impact-assessment-and-monitoring/horizon-europe_en

⁴⁵¹ European Commission study “Knowledge ecosystems in the new ERA - Developing a monitoring methodology and dashboard concept on (institutional) transformation in the area of R&I at European universities” (December 2021, unpublished results)

Open Science practices; involving and engaging citizens, civil society, and public authorities in R&I

10.3. Potential of an integrated European higher education data platform for the monitoring of the transformation of higher education and HEIs

At the institutional level. HEIs are uneven in their capacity to **monitor and assess performance** as well as the resources and expertise for doing so. Creating better instruments, for data collection and management would be important to help with assessment and evaluation of institutional activity, education and research activity, outcomes and impact. In addition, developing responsible, next-generation metrics to evaluate and valorise institutional and disciplinary differences, diverse approaches to teaching and learning and the learning experience, and the needs of learners from diverse backgrounds and circumstances would make an important contribution to ensuring efficient and effective use of resources.

At the EU level, setting up a primary source of reliable and verifiable information could help to support strategic decision making as well as benchmarking and peer-learning among member states and stakeholders in the field of higher education. In particular, such a coordinated source of data would be instrumental in **monitoring the implementation of the European Strategy for Universities** and to provide evidence on the progress made across the EU along its different transformation dimensions. This monitoring would be a very valuable grounding for the development of a dialogue between the Commission, the Member states and the stakeholders on the future of the strategy and transformation of HEIs, in the context of the governance of the EEA and ERA.

At the member state level, supporting HEIs develop their own information systems and institutional research capability would help improve strategic leadership and management, help monitor and enhance performance and quality, and build transparency and trust between HEIs and the public. It is important to provide appropriate tools and understanding to counter the current practice by member states and HEIs from using commercial rankings which are not a meaningful measure or comparator of quality or performance.⁴⁵²

Success stories of transnational projects innovating in data and monitoring

Aurora⁴⁵³ is a European Universities Alliance funded through Erasmus+ and Horizon 2020 and involves nine universities and twelve associated partners. Its mission is to tackle global societal challenges in areas like the Sustainable Development Goals of the United Nations. It has created a Sustainable Development Goals dashboard⁴⁵⁴, which demonstrates the societal relevance and societal impact of research of Aurora universities. This dashboard shows the research contributions in these societal challenges and assesses how policy makers have used the research available.

The European University Association (EUA) University Autonomy Tool⁴⁵⁵ is funded through the Lifelong Learning Programme. It is a comparison tool to describe the state of university autonomy in

⁴⁵² For example. https://www.vsnu.nl/en_GB/news-items/nieuwsbericht/653-last-chance-to-invest-in-european-higher-education-and-research.html

⁴⁵³ <https://aurora-network.global>

⁴⁵⁴ <https://aurora-network.global/project/sdg-analysis-bibliometrics-relevance/>

⁴⁵⁵ <https://www.university-autonomy.eu/>

29 European higher education systems along organisational, financial, staffing and academic dimensions. It is combined with the EUA Autonomy Scorecard that reports and weighs from higher education institutions across the continent, benchmarking national policies with regard to university autonomy.

The Alliance for Inclusive Investment in Social Care and Support (a4I/EFSI)⁴⁵⁶ is funded by the EU Employment and Social Innovation Action "EaSI" (2014-2020). The Alliance reports on current social investment needs in Europe and brought together social service providers, private investors and higher education institutions to create a new cross-sectoral teaching concept, based on integrated academic and adult training learning methods together with models and case examples of good practices.

The European Research Infrastructure for Science, technology and Innovation policy Studies (RISIS)⁴⁵⁷, funded under the Horizon 2020 Research and Innovation Programme, aims at building a data and services infrastructure supporting the development of a new generation of analyses and indicators. The project goes beyond established quantitative indicators, but develops new positioning indicators, which take into account critical features of knowledge dynamics such as the importance of asymmetries in producers, in places and in themes. Its platform gives access to 14 RISIS datasets.

⁴⁵⁶ <http://www.socialinvestment.eu/en/knowledge-center>

⁴⁵⁷ <https://www.risis2.eu/>

Annex 1: Synopsis of Stakeholder Consultation

1. Introduction

The European Commission initiated consultations at the end of 2020 to gather stakeholder views on two initiatives: a **Commission Communication on a European Strategy for Universities** and a **Proposal for a Council Recommendation on building bridges for effective European transnational cooperation in higher education**. The consultations aimed to understand how the Commission can further support European universities to invest in people, tackle societal challenges, and to work closer together, in view of their critical role in managing the unfolding transitions the EU faces.

This section presents a **synopsis of key findings from feedback provided by stakeholders and Member States** across targeted stakeholder events and through their provision of position papers. The stakeholder feedback has been important in shaping the Strategy and the Commission Proposal for a Council Recommendation.

2. Consultation and activities

The **consultation** aimed at gathering stakeholder and Member State views to ensure the co-creation of a European Strategy for Universities that will provide incentives to empower higher education institutions (HEIs) across Europe to be future-proof and resilient institutions. An important aim is to build bridges for effective transnational cooperation across Europe, by exploring how to strengthen the enabling framework both at the level of HEIs, as well as at the regional, national, and European level.

The consultation had **three main activities**: the collection of feedback on the Call for Evidence; a broad range of public and targeted stakeholder consultations involving key stakeholder groups; and an analysis of position papers. Some stakeholders issued related policy papers as a response to the targeted consultations event. The three activities took place in addition to the consultations carried out over the past 3 years on the European Universities Initiative and other higher education policies.

Calls for Evidence

From 20 October to 17 November 2021, the European Commission collected feedback on Calls for Evidence linked to the European Strategy and the Commission Proposal for a Council Recommendation.⁴⁵⁸ The Calls aimed to inform citizens and stakeholders about the Commission's ongoing work in relation to the two initiatives, and to solicit their feedback. The Calls described the issues and objectives to be met, why EU action is needed, and the main features of the Consultation. Citizens and stakeholders were invited to provide views on the Commission's understanding of the problems, propose possible solutions, and contribute any relevant information. Feedback was collected via the European Commission's dedicated website.

⁴⁵⁸ More information on the Call for Evidence can be found https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13199-Higher-education-a-European-strategy-for-universities_en for the European Strategy for Universities and https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13198-Building-bridges-for-effective-European-higher-education-cooperation_en for the Commission Proposal for the Council Recommendation.

Public and targeted stakeholder events

Public and targeted consultations events were conducted from the second half of 2020 up to end 2021 to maximise the participation of all interested stakeholders. The events aimed to gather perspectives on the scope and content of the proposed European Strategy for Universities and the Commission Proposal for a Council Recommendation from Member States. Stakeholders ranged across HEIs and related higher education networks, the European Universities, students and student organisations, rectors and rector's conferences, social partners in higher education, as well other institutional stakeholders such as Members of the European Parliament, the Committee of the Regions and the European Economic and Social Committee. Tables A1-A3 detail the public and targeted stakeholder consultation events:

Table A1: Public Events

Date	Name of consultation event
10 December 2020	Third European Education Summit, with a special focus on higher education transformation
14 April 2021	Conference on “European Universities on pioneering transformation in education, research and innovation”, co-organised with the Portuguese Presidency of the Council.
23-24 June 2021	R&I days, with a special session on the European Strategy for Universities
9 December 2021	Fourth European Education Summit, with a dedicated session on the Strategy on the European Strategy for Universities

Table A2: High-level targeted consultation meetings

Date	Name of consultation event
4 November 2020	High-level meeting of Directors General for Higher Education and rectors of European Universities and webinar with students of European Universities on higher education transformation and unlocking the potential of transnational cooperation
8 April 2021	High-level meeting of Directors-General of Higher Education on a transformative agenda for Higher Education and European Universities
27 April 2021	High-level targeted consultation meeting with Vice-President Schinas, Commissioner Gabriel and Rectors of the European Universities on a European Strategy for Universities and transnational cooperation
10 June 2021	High-level targeted consultation meeting with Commissioner Gabriel and Members of the European Parliament on a European Strategy for Universities and transnational cooperation
5 July 2021	High-level targeted consultation meeting with Commissioner Gabriel and Members of the Committee of the Regions (CoR) and the European Economic and Social Committee (EESC) on a European Strategy for Universities and transnational cooperation
3 September 2021	High-level targeted consultation meeting with Commissioner Gabriel and Universities and Student Networks on a European Strategy for Universities and transnational cooperation
29-30 September 2021	Joint high-level meeting of Directors-General of Higher Education and the European Research and Innovation Committee (ERAC) on the European Strategy for Universities

Table A3: Targeted Consultation meetings with the stakeholder group, coordinators of European Universities and Member States representatives

Date	Name of consultation event
19 March 2021	First meeting of the Stakeholder Group on higher education transformation and the European Universities initiative (linked to transnational cooperation)
25 March 2021	European Universities coordinators consultation meeting on higher education transformation and the European Universities initiative (linked to transnational cooperation)
30-31 March 2021	Consultation meeting with the Ad Hoc Expert Group of Member States representatives on higher education transformation and the European Universities initiative (linked to transnational cooperation)
21 April 2021	European Universities coordinators consultation meeting on higher education transformation and the European Universities initiative (linked to transnational cooperation)
23-26 April 2021	Second meeting of the Stakeholder Group on higher education transformation and the European Universities initiative (linked to transnational cooperation)
29-30 April 2021	Consultation meeting with Ad Hoc group of Member States representatives on higher education transformation and an enabling environment to unlock the full potential of European Universities and other types of transnational cooperation arrangements
20 May 2021	European Universities coordinators consultation meeting on the European Universities initiative (linked to transnational cooperation)
3 June 2021	Erasmus+ Knowledge alliances consultation meeting on a European Strategy for Universities
15 June 2021	ERA Forum for Transition, HEI subgroup, meeting on R&I priorities for institutional change
16 June 2021	Joint meeting of the Stakeholder group & Coordinators of European Universities on the European Strategy for Universities and the European Universities Initiative (linked to transnational cooperation)
22 June 2021	Consultation meeting with Ad Hoc Expert Group, jointly with the ERA Forum HEI subgroup, on the European Strategy for Universities and the European Universities Initiative
2 July 2021	Joint Consultation meeting with Ad Hoc Expert, ERA Forum HEI subgroup and Stakeholder group and Coordinators of European Universities on an enabling environment to unlock the full potential of European Universities and other types of universities alliances
14 September 2021	Joint meeting of the stakeholder group and coordinators of European Universities on a European Strategy for Universities and an enabling policy framework to unlock the full potential of European Universities

Many of the events included a research and innovation focus. However, a consultation process of umbrella stakeholder organisations and higher education experts with meetings, workshops, and interviews specifically for the research and innovation dimension of the European Strategy for Universities, took place between January and May 2020, and led to a study report “Towards a 2030 vision on the future of universities in Europe” in October 2020.⁴⁵⁹). In addition, a recent study “Knowledge ecosystems in the new ERA” provided the priority areas for institutional change,

⁴⁵⁹ <https://op.europa.eu/en/publication-detail/-/publication/a3cde934-12a0-11eb-9a54-01aa75ed71a1/language-en>

based on the needs of universities, collected through a thorough literature analysis, survey of and workshop with universities and umbrella organisations (September 2021, unpublished results).

Stakeholder position papers

During the period of consultation, stakeholders submitted or published position papers, studies, and reports, to present and support their views on the European Strategy for Universities and transnational cooperation, as well as on the wider range of topics related more generally to the future of European Universities.

Reach of the Stakeholder Consultation Strategy

Overall, a wide range of stakeholders was reached and consulted through the three consultation activities described above. Table A4 below provides an illustration of the stakeholder landscape, indicating the groups reached by each consultation channel. Overall, all intended stakeholder categories were reached through at least one of the consultation channels.

Table A4: Stakeholder landscape

Consultation activity	Intended audiences for Stakeholder Consultation Strategy											
	Higher education institutions	University and student organisations	University umbrella networks	Rector's Conferences	European Universities alliances	Social Partners	Member States representatives / governments	EU institutional partners (e.g. EP, CoR, EESC)	Organisations representing regional, local and municipal authorities	Citizens/general public	Non-governmental organisations	Company /business organisation
Call for Evidence	✓	✓	✓			✓	✓			✓	✓	✓
Targeted Consultation Event	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Public events	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Position Papers		✓	✓		✓							

3. Findings

This section provides a synopsis of stakeholder and Member State feedback provided through the public and targeted stakeholder events and the submission of position papers.

3.1 Feedback collected at the open and targeted stakeholder events

There were five types of consultation events: open public events, high-level targeted, consultations, Ad Hoc Expert Group with Member States representatives, HEI subgroup of the

ERA Forum, stakeholder groups and consultations with the coordinators of European Universities. The main findings follow.

Overall views on the European Strategy for Universities and transnational cooperation

Consultation participants generally strongly welcomed the Commission's initiative to co-create a long-term strategy for universities with a common vision and objective for higher education, research, and innovation that also protects fundamental values and the autonomy of universities. The need for a holistic approach, covering all missions of universities was emphasised by both member states and stakeholder organisations. Member States acknowledged that universities are a main actor not only to realise the European Education Area, but also the European Research Area. Improving the enabling framework for transnational cooperation was welcomed as a priority, in view of its potential to foster synergies across different universities. The need to appreciate and support the diversity of Europe's higher education sector was emphasised by many stakeholders and Member States, and was contested by none

Terminology and scope

Though there was general support for a title of the Strategy reflecting the enabling role of the EU to support higher education, some stakeholders called for moving away from the idea of 'transformation', while others expressed concerns that the word 'Strategy' could be considered 'top-down'. Some stakeholders and Member States suggested to reflect the diversity of the higher education landscape beyond universities, for example also addressing universities of applied sciences, arts education, and other HEIs. It was suggested to opt for a bottom-up approach, and not to apply a one-size-fits-all approach.

On transnational cooperation in education and R&I

The need for closer cooperation between HEIs and the different actors from their local ecosystems in all higher education missions was flagged consistently across all consultation events. For many participants this would help prevent dependence on external players, and would improve knowledge building and the exchange of existing best practices. There was unanimity that the EU should take a leading role to facilitate deeper cooperation in the higher education sector. The EU was asked to help HEIs in testing and developing new and innovative forms of cooperation, for example through the European Universities initiative, and further support for the creation of virtual spaces where universities can share ideas and learn from each other.

Stakeholders and Member States agreed that transnational cooperation across HEIs in Europe is not as easy as it could be. There remain issues to overcome when cooperating across borders. As a result, there was a strong demand from the sector to the European level to foster dialogue with the Member States to remove barriers to transnational cooperation. Both Member States and stakeholders highlighted the need for a smooth and supportive approach across often diverging national education frameworks. Stakeholders requested a mirroring of the principles of the upcoming European Strategy for Universities in national policy agendas to facilitate deeper cooperation between HEIs to fully unlock the potential of the sector. The need for flexible approaches at national level was stressed by stakeholders, while at the same time recognising the competences of Member States in the field of education.

Table A5 presents the outcomes of the different consultation meetings and provides an overview on the challenges encountered by higher education institutions across Europe when working together across borders, be it at the institutional, regional, national, or European level.

Table A5: Overview of Challenges and Barriers to Higher Education Transnational Cooperation

CHALLENGE	HIGHER EDUCATION INSTITUTION LEVEL	REGIONAL/NATIONAL LEVEL	EU LEVEL
BARRIERS RELATED TO GENERAL HIGHER EDUCATION REGULATIONS			
Restrictive national legislation regarding tuition fees		X	
Restrictive national legislation regarding the selection and enrolment of students and the obligation of double or single enrolment of students and doctoral candidates in chosen universities and doctoral schools upon arrival at the university		X	
Prescriptive national legislation regarding the necessary components of the graduation diploma and the joint diploma and graduation rules		X	
ACCREDITATION OF NEW JOINT PROGRAMMES (AT ALL LEVELS)			
Restrictive national legislation regarding the use of foreign languages in a degree programme		X	
Prescriptive national legislation regarding the percentage of foreign teachers in a degree programme		X	
Restrictive national legislation regarding curricula (minimum or maximum ECTS credits per course / minimum ECTS credits for compulsory courses)		X	
Differences in grading scales and workload per ECTS		X	
Restrictive national legislation regarding the possibility to create an interdisciplinary degree		X	
Restrictive national legislation forcing programmes to go through a new accreditation procedure every time the consortium partners for the joint degree change		X	
QUALITY ASSURANCE OF NEW JOINT PROGRAMMES			
Difficulties in developing an internal Quality Assurance framework for the European University that addresses all requirements in the different national systems	X	X	
Unequal or non-application of the European Approach for the Quality Assurance of Joint Programmes	X	X	X
ISSUES WITH THE INTRODUCTION OF NEW FLEXIBLE LEARNING PATHS			
Stringent national regulations with regards to the establishment of full degrees		X	
Lack of a framework for micro-credentials	X	X	X
Difficulties in recognition of prior learning	X	X	X
ISSUES WITH AUTOMATIC RECOGNITION OF QUALIFICATIONS AND STUDY PERIODS ABROAD			
Strong diversity of appropriation application of the Bologna Process tools among partners and within Member States	X	X	
Issues with recognition of blended and online learning	X	X	
ISSUES WITH ENSURING SEAMLESS AND EMBEDDED MOBILITIES			
Differences in academic calendar	X	X	
Financing framework of mobility does not cater sufficiently for innovative mobility formats	X	X	X
Restrictive requirements for health insurance and administrative fees even for short term mobilities for students and staff	X	X	X
Difficulties with offering attractive and flexible academic and researchers' careers	X	X	X
DIFFICULTIES IN SETTING UP OF VIRTUAL CAMPUSES			
Lack of interoperability of IT systems	X	X	X
Lack of adequate platforms for digital or hybrid activities	X	X	X
Difficulties to enrol appropriate staff to build the virtual inter-university campuses	X		
RESEARCH AND INNOVATION SPECIFIC CHALLENGES			
Constraints to the full implementation of Open Science	X	X	
Difficulties in establishing sustainable connections to the external environment (open ecosystem approach)	X	X	

CHALLENGE	HIGHER EDUCATION INSTITUTION LEVEL	REGIONAL/NATIONAL LEVEL	EU LEVEL
Insufficient support or incentives for knowledge and technology transfer	X	X	
LACK OR INSUFFICIENT FLEXIBLE LEGAL STATUTE POSSIBLY ALLOWING FOR:			
Joint and shared Human Resources management	X	X	X
Joint infrastructure management (both physical and virtual)	X	X	X
Joint student recruitment and joint offering of education and awarding of degrees	X	X	X
Joint data provision, management, and exchange (GDPR compliant)	X	X	X
Joint support services for students, staff, academics, and researchers	X	X	X
Joint administration services	X	X	X
Joint internationalisation services	X	X	X
Joint applications to funding calls	X	X	X
Joint and effective cooperation between universities and with ecosystem actors	X	X	X
FUNDING			
Level of funding not matching the ambition level, and too short-term	X	X	X
Unequal national funding to partner universities of the alliance		X	
Lack of funding diversification (e.g. private funding, micro-credentials)	X		
Patchwork of regulations linked to the different funding opportunities from the private, regional, national, and European level; absence of a one-stop-shop for funding	X	X	X
OTHER			
Differences in the autonomy of universities in each national context	X	X	
Difficulties in collaboration with other universities at global level	X	X	X
Delays and difficulties caused to the COVID-19 pandemic	X		

Source: DG EAC elaboration, based on the targeted consultation process

On knowledge, skills and competences and the link to Innovation Ecosystems

Europe needs to recapture its competitive edge, and bridge the skills gap, both for the young Europeans, and for those who need to up-skill and re-skill to join the new challenges on the labour market. For this, Europe needs well-trained talent with skills and competences to address the twin digital and climate transitions. Responsiveness to societal needs, engagement with society and innovation must become an integral part of the university environment. Innovative pedagogies could be more widely applied, including by research-informed teaching and learning.

On inclusion and diversity, including gender equality

There was large consensus amongst different groups of stakeholders and Member States that diversity and inclusion are key components of European higher education, and need to be further reinforced. This concerns both inclusion and diversity (including gender equality) of the student, academic and research population, as well as the need for closing the divide between different geographical areas in the EU. The role of higher education in driving forwards upward social mobility was underlined by many in the consultation meetings.

On values and democracy

Stakeholders strongly emphasised that universities and other HEIs are proponents of fundamental (academic) values, freedom of science and democracy. They see it as a key prerequisite for a well-functioning higher education sector. They noted that HEIs should be stewards of freedom of speech, and must be places of academic freedom. It means that the academic community should be able to engage in research, teaching, learning and communication in society without fear of

reprisal. The importance of protecting these values and the diversity of higher education institutions was emphasised by stakeholders and a large majority of Member States. They asked for supportive action at the European level.

On sustainability and digitalisation

Stakeholders and Member States highlighted the role of the higher education sector in addressing the green and digital transitions.

HEIs play an essential role not only in creating and disseminating knowledge and technology, but also in adapting attitudes, perceptions, and values to live and act in a more sustainable manner. The increasingly important role of universities contributing to the United Nations Sustainable Development Goals (SDGs) was put forward, with a special focus on the green transition. In this context, the need to facilitate transdisciplinary approaches to both education and research was emphasised, as well as a whole-institutional approach that integrates sustainability into all programmes, disciplines and levels of higher education and research.

With regards to the digital transition, stakeholders observed that although during the pandemic it showed that HEIs had a high level of preparedness due to their prior involvement in digital education, digital divides remain. Students and researchers did not always have the appropriate digital skills, or did not have equal access to digital infrastructure or the support they needed to switch to online learning. Academics have called for more professional development opportunities.

Stakeholders emphasised that the digital capacity and infrastructure of HEIs varies widely, both within and between countries. They called for more interoperability between IT systems of universities to facilitate their cooperation. Lastly, stakeholders raised concerns that HEIs in Europe are often reliant on large multinational companies offering digital educational solutions that do not always take into consideration data use and protection, ethics and privacy.

Opportunities and benefits for improved digitalisation in Europe such as global competitiveness and greater connectedness were identified. Some stakeholders and Member States called for the EU to be a leader in creating virtual campuses, as well as in artificial intelligence (AI) and big data.

Global Europe

Universities have stressed the importance of the global dimension of higher education, both in view of international cooperation and competitiveness. They asked for support to develop strong bridges with partner countries globally to further international cooperation and development. They called for attracting and retaining talented students, academics, and researchers as a key element for knowledge creation and skills development across the EU. They want to reach out to the rest of the world to promote fundamental academic values and freedom of science, increase cooperation with like-minded partners and help boost the capacity of new and emerging centres of excellence in partner countries.

Increased synergies

A need for more synergies between education, research, and innovation in Europe's universities, and in related policies at the institutional, national, and European level, was underlined by stakeholders and Member States. Proposals for action focused on the training of future researchers, involvement of students in research, academic careers, ensuring parity of esteem of education and research activities, mobility between research and academia, and collaboration with industry.

It was also suggested to bring the higher education dimension of the European Education Area (EEA) and the European Research Area, in close synergy with the European Higher Education Area (Bologna Process) closer together at the European level. In this context, stakeholders and Member States asked for increased synergy between the Erasmus+ and the Horizon Europe programmes and other EU funding opportunities, while respecting the different nature and objectives of those programmes. The effective implementation at national level of the Bologna Process tools was also emphasised by a large majority of stakeholder in this context, for example in view of the recognition of learning periods abroad and quality assurance.

Funding

The need for increased and more efficient and effective investment in the European higher education sector was expressed by almost all stakeholders involved. They underlined the need for more sustainable funding, while respecting institutional autonomy. They asked for simplified funding instruments and for a better alignment between the various funding opportunities at the different levels (be it regional, national, or European).

3.2 Feedback from position papers on the Strategy building blocks

As noted above, position papers were put forward by stakeholders presenting their views on the future of universities and the higher education sector at large in Europe. The following subsections present a summary of the views expressed, structured around the consultation building blocks.

Transnational cooperation in education and R&I

Transnational cooperation between higher education institutions in Europe was generally welcomed by stakeholders, and the creation of a comprehensive and innovative policy framework was seen as vital by many stakeholders. Several of them suggested building upon existing frameworks such as the Bologna Process⁴⁶⁰, the European Education Area and the European Research Area. The additional value of fully exploiting these frameworks was highlighted in relation to recognition and quality assurance.

Some stakeholders considered it vital that broad and diverse bodies of relevant stakeholders were systematically involved in the governing frameworks as partners, to ensure representation and structured dialogue with political decision makers. This was seen as particularly important to protect the institutional autonomy of universities.⁴⁶¹ Several stakeholders called upon governments to work together to remove legal and administrative barriers to transnational cooperation. Some stakeholders even requested that the Commission take legal action against the Member States that do not cooperate in this area.⁴⁶²

Industrial and innovation ecosystems

Important cooperation partners for higher education institutions include governments, industry, NGOs and entrepreneurs. Both academic and non-academic cooperation was deemed essential.⁴⁶³ Stakeholders saw the European Strategy for Universities as a means to close the innovation gap between different European regions. In addition to increased synergies and cohesion between existing and emerging instruments and the European Innovation Council,⁴⁶⁴ the use of consistent

⁴⁶⁰ <https://www.eua.eu/downloads/publications/eua%20council%20position%20on%20future%20of%20eui.pdf> ;

<https://eua.eu/downloads/publications/eea.pdf>

⁴⁶¹ <https://eua.eu/downloads/publications/eea.pdf>

⁴⁶² <https://www.leru.org/news/european-universities-no-more-lip-service-time-for-action>

⁴⁶³ <https://www.cesaer.org/content/5-operations/2020/20201008-position-towards-a-truly-reinforced-european-research-area.pdf>

⁴⁶⁴ https://eua.eu/downloads/publications/eua%20policy%20input_perspectives%20on%20era%20from%20the%20university%20sector.pdf

inter-sectoral mobility was also seen as useful in supporting the local innovation ecosystems, and facilitating dialogue across them.⁴⁶⁵

In addition to strategic investment and the use of innovative pedagogies^{466,467} stakeholders also encouraged the improvement of STEM skills of teachers and secondary school students, to enable learners to attain high-level skills and expertise.⁴⁶⁸ Moreover, critical skills and interdisciplinary, transdisciplinary, and transversal skills⁴⁶⁹ were emphasised as being essential.⁴⁷⁰ Among other suggestions made by stakeholders, the use of experience as opposed to an uncritical adoption of new methodologies was deemed most beneficial⁴⁷¹.

Inclusion, diversity, and equal opportunities

As diversity and equal opportunities were generally high on the agenda of the stakeholders, there was support for the Skills Agenda focus on equal access to up-skilling and re-skilling. Nonetheless, recommendations were made for improvement to ensure that universities become more representative of their diverse communities. For example, in relation to gender, some stakeholders showed support for research and training into gender sensitive research⁴⁷², while others highlighted the need to adopt a wider perspective on equal opportunities that goes beyond gender (in)equality.⁴⁷³ Overall, stakeholders expressed support for research and dissemination that would enable vulnerable, disadvantaged, and underrepresented groups to be identified and supported. In this regard, recommendations were made for European cooperation to foster mutual learning and exchange, and for inclusion to be further embedded in institutional strategies⁴⁷⁴ and Erasmus+ mobility action, both for intra-European and international exchanges.

Values and democracy

Academic freedom is an overarching enabling condition for the higher education sector.⁴⁷⁵ A large majority of stakeholders placed the onus of its protection on governments that should provide regulatory frameworks while refraining from interference with the internal affairs of colleges and universities.⁴⁷⁶ Others called on universities themselves and encourage the use of civic engagement to protect core values.⁴⁷⁷

<https://www.yerun.eu/publications/the-new-era-communication-through-the-eyes-of-young-universities/>

<https://eua.eu/resources/publications/918:building-synergies-between-education-research-and-innovation-by-aligning-the-eu-funding-programmes.html>

<https://www.cesaer.org/content/5-operations/2020/20200420-position-european-education-area.pdf>

https://eua.eu/downloads/publications/eua%20policy%20input_perspectives%20on%20era%20from%20the%20university%20sector.pdf

<https://eua.eu/resources/publications/930:eua-response-to-the-new-eu-industrial-and-digital-strategies.html>

<https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/>

⁴⁶⁵ <https://eua.eu/resources/publications/930:eua-response-to-the-new-eu-industrial-and-digital-strategies.html> ; https://aca-secretariat.be/post_other_pub/acas-contribution-to-the-ecs-public-consultation-on-the-european-education-area/?yearPub=2020

⁴⁶⁶ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁴⁶⁷ <https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/>

⁴⁶⁸ <https://www.cesaer.org/content/5-operations/2020/20201008-position-towards-a-dynamic-european-education-area-driven-by-excellence.pdf> ; <https://eua.eu/downloads/publications/universities%20without%20walls%20%20a%20vision%20for%202030.pdf>

⁴⁶⁹ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁴⁷⁰ <https://www.cesaer.org/content/5-operations/2020/20201008-position-towards-a-dynamic-european-education-area-driven-by-excellence.pdf> ;

<https://eua.eu/downloads/publications/universities%20without%20walls%20%20a%20vision%20for%202030.pdf>

⁴⁷¹ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁴⁷² <https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/>

⁴⁷³ <https://eua.eu/resources/publications/946:eea-position.html> ; <https://www.cesaer.org/content/5-operations/2019/20190906-white-paper-equality-final.pdf>

⁴⁷⁴ <https://www.leru.org/publications/equality-diversity-and-inclusion-at-universities>

⁴⁷⁵ <https://www.the-guild.eu/news/2021/the-guild-calls-for-strengthening-academic-freedom>

⁴⁷⁶ <https://allea.org/allea-eua-and-science-europe-publish-joint-statement-on-academic-freedom-and-institutional-autonomy/>

⁴⁷⁷ <https://eua.eu/downloads/publications/universities%20without%20walls%20%20a%20vision%20for%202030.pdf>

Stakeholders identified methods for the meaningful implementation of academic freedom through: data collection on attacks on academic freedom; the explicit mention of academic freedom in records, reports and EU and regional action plans; the inclusion of a module on academic freedom in human rights training, staff induction training, and partnership agreements⁴⁷⁸; the provision of support for advocates on the frontline; the creation of consequences where human rights and democracy standards are not adhered to.⁴⁷⁹

The importance was also raised about institutional autonomy, integrity, student and staff participation in higher education governance, financial autonomy,⁴⁸⁰ tolerance, critical spirit, and democratic citizenship.⁴⁸¹ The development of a common framework for teaching and learning about the EU was also proposed.⁴⁸²

Green transition

Stakeholder position papers showed large alignment on the key contribution of HEIs to the green transition and the sustainability challenge.⁴⁸³ The importance of whole-institutional approaches, as well as interdisciplinarity, was emphasised in order to make education for environmental sustainability a success.⁴⁸⁴ The need for ‘green’ education infrastructures as a support mechanism for HEIs to develop greening strategies was raised by some stakeholders⁴⁸⁵, alongside the need to promote a green mind-set as an area of citizenship competence.⁴⁸⁶ Potential solutions included: the greening of mobilities funded under Erasmus+⁴⁸⁷, for example through the adoption of Erasmus+ Green Charter⁴⁸⁸; reductions in carbon emissions by imposing limits on short distance air travel; a review of daily operations to identify areas of improvement.

Digital decade

Generally, stakeholders supported the digital transformation, commending its environmental impact by reducing carbon footprint while improving access to internationalisation.⁴⁸⁹ Despite the benefits however, some stakeholders felt the shift to online teaching had been presented as an inferior alternative rather than a fully operative and interactive methodology.⁴⁹⁰ Some argued that more consideration should be given to the question how to ensure the highest pedagogical and educational quality and desired learning outcomes, when learning and teaching online.⁴⁹¹

There was agreement among stakeholders that digital learning could not replace the physical element but should work well to complement it.⁴⁹² However, the insufficient level of digital literacy among students and teachers was cited as an obstacle to successful digitalisation.⁴⁹³

⁴⁷⁸ <https://eua.eu/resources/expert-voices/203:all-hands-on-deck-delivering-academic-freedom-for-europe.html>

⁴⁷⁹ *ibid*

⁴⁸⁰ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁴⁸¹ <https://www.etuc.org/en/document/etuc-position-european-skills-agenda-and-future-skills-strategies>

⁴⁸² <https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁴⁸³ For example, <https://eua.eu/resources/publications/946:eea-position.html>

⁴⁸⁴ <https://eua.eu/resources/publications/964:environmental-sustainability-of-learning-and-teaching.html>

⁴⁸⁵ <https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/>

⁴⁸⁶ <https://lllplatform.eu/lll/wp-content/uploads/2020/12/LL4SS-4.pdf>

⁴⁸⁷ <https://www.cesaer.org/content/5-operations/2020/20200420-position-european-education-area.pdf>; <https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/>

⁴⁸⁸ <https://op.europa.eu/en/publication-detail/-/publication/2bfbb0d9-9b3c-11eb-b85c-01aa75ed71a1/language-en>

⁴⁸⁹ https://aca-secretariat.be/post_other_pub/acas-contribution-to-the-ecs-public-consultation-on-the-european-education-area/?yearPub=2020

⁴⁹⁰ <https://eprints.ucm.es/id/eprint/63526/1/Covid19-Impact-Report-2020-The-Europaeum-2.pdf>

⁴⁹¹ <https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/>

⁴⁹² <https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/> ;

<https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁴⁹³ <https://eua.eu/resources/publications/954:digitally-enhanced-learning-and-teaching-in-european-higher-education-institutions.html> ;

<https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

Therefore, recommendations were made by many stakeholders for the facilitation of training and up-skilling among students and teachers.⁴⁹⁴ Wider investment in people's access to lifelong learning opportunities was also seen as a necessity in view of digitalisation.⁴⁹⁵

Calls were made for cooperation and exchange of best practices among HEIs and with other stakeholders (including local authorities and civil society) to accelerate digitalisation.⁴⁹⁶ The utility of peer to peer learning was highlighted,⁴⁹⁷ and of initiatives such as Open Science and the European Open Science Cloud (EOSC) to facilitate cooperation and synergies.⁴⁹⁸

The provision of shared infrastructures for virtual campuses was proposed to ensure the compatibility and accessibility of different digital infrastructures, platforms and tools. Some stakeholders called on Member States and EU institutions to address this to improve interoperability and facilitate common European data formats, standards, and seamless data exchanges.⁴⁹⁹ Thus, work towards a digital hub was welcomed⁵⁰⁰, and a "European hub" was proposed to enable competition with top universities and companies outside the EU while safeguarding European values.

Lastly, concerns were raised around the protection of ethical, human, and social dimensions under the new digital setting. Risks in relation to data protection⁵⁰¹ and the use of data for student profiling and control were underscored, as well as new risks such as digital poverty, unequal access to learning content and isolation.⁵⁰² In this regard, the importance of strengthening support mechanisms for students and their parents was flagged.⁵⁰³

Global Europe

International cooperation and open collaboration were viewed by many stakeholders as key to the Global Europe vision, and to the EU's global approach to research and innovation, and in addressing global challenges.⁵⁰⁴ Partnerships and collaboration beyond Europe and with third countries were seen as key.⁵⁰⁵ According to some stakeholders a 'borderless' learning area of cooperation, quality and diversity required coordination between the EEA and ERA. They supported the development and expansion of existing flagship programmes such as the Erasmus+

⁴⁹⁴ <https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁴⁹⁵ http://lllplatform.eu/lll/wp-content/uploads/2015/09/DigitalPaper_final.pdf

⁴⁹⁶ <https://eua.eu/resources/publications/930:eua-response-to-the-new-eu-industrial-and-digital-strategies.html> ;

<https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/>

⁴⁹⁷ *ibid*

⁴⁹⁸ <https://www.leru.org/publications/implementing-open-science> ;

https://heinnovate.eu/sites/default/files/ES4U_KA_MeetingReport_v3%20Final.pdf

⁴⁹⁹ https://www.daad-brussels.eu/files/2020/09/PositionPaper_DEAP_DAAD.pdf ; <https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/>

⁵⁰⁰ <https://www.cesaer.org/news/seize-opportunities-for-digitalisation-in-education-and-training-728/>

⁵⁰¹ <https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁵⁰² <https://www.coimbra-group.eu/wp-content/uploads/Coimbra-Group-Position-Paper-on-Digital-Education-Plan.pdf> ;

<https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation> ;

<https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/> ;

<https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁵⁰³ <https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/> ;

<https://www.eppgroup.eu/newsroom/publications/epp-group-position-paper-on-education-in-the-era-of-digitalisation>

⁵⁰⁴ <https://eua.eu/resources/publications/961:eua-policy-input-to-the-preparation-of-the-upcoming-european-commission-communication-on-a-global-approach-to-research-education-innovation-and-youth.html> ; https://aca-secretariat.be/post_other_pub/acas-contribution-to-the-ecs-public-consultation-on-the-european-education-area/?yearPub=2020 ; <https://eua.eu/resources/publications/946:eea-position.html>

⁵⁰⁵ <https://eua.eu/resources/publications/946:eea-position.html> ; <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

programme within the EEA and the European Higher Education Area rather than creating new activities or programmes.⁵⁰⁶

Other university stakeholders felt that, in order to solve complex societal challenges, the focus should be on ensuring the excellence of European Universities to global standards⁵⁰⁷ through the strength of European researchers, and their ability to work with the best scientists across Europe and beyond.

New investment package

All stakeholders agreed that there was a need for increased investment in higher education at the institutional, regional, national and European levels.⁵⁰⁸ Highlighted areas for investment included tools, accessibility, content development and training for teaching and administrative staff and research.⁵⁰⁹ Funding should be sustainable in order for universities to achieve their missions.⁵¹⁰ This funding was also considered necessary to enable universities to defend their core values and position as innovation leaders to prevent future dependencies on external tech players.⁵¹¹

Criticism was given to the EU's proposed budget cuts in the field of research⁵¹², observing that every euro invested in European research generated an economic surplus growth of €13.⁵¹³ Member States were called to act and use funding available through the Recovery and Resilience Facility to support research, innovation, and education. However, some stakeholders argued that reductions in the European budget could not be offset by national investment.⁵¹⁴

Some stakeholders argued that the EU must benchmark against the investments made by the best performers in the world. In their view, the first step is establishing a broad and solid evidence base on funding levels and allocation models across Europe.⁵¹⁵ Stakeholders asked for: the removal of barriers to obtaining funding for inter- and transdisciplinary research⁵¹⁶; the establishment of more national-level investments in higher education (for example an enforceable percentage of GDP targets for higher education to monitor and effectuate progress⁵¹⁷); the organisation of regular joint exchanges between EU finance and education ministers, to develop a common understanding and exchange on investment needs and approaches to investment; and the improvement, simplification and alignment of funding rules between the current and next generation of EU programmes.⁵¹⁸

4. Conclusions

Overall, stakeholders welcomed the spirit of the European Strategy for Universities and were forthcoming with feedback and recommendations across all areas. Areas of general consensus were: the need to protect and promote fundamental academic values and freedom of research; the

⁵⁰⁶ https://aca-secretariat.be/post_other_pub/acas-contribution-to-the-ecs-public-consultation-on-the-european-education-area/?yearPub=2020 ; <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁵⁰⁷ <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁵⁰⁸ For example: https://www.hrk.de/fileadmin/redaktion/hrk/01-Bilder/01-03-Personen/01-03-01-HRK/20_10_19_Gastbeitrag_FAZ_Langfassung_engl_dt.pdf ; <https://www.cesaer.org/content/5-operations/2020/20201008-position-towards-a-dynamic-european-education-area-driven-by-excellence.pdf>

⁵⁰⁹ <https://www.yerun.eu/publications/young-european-research-universities-welcome-the-eea-communication/>

⁵¹⁰ <https://www.cesaer.org/news/sustainable-funding-for-universities-of-the-future-477/> ; <https://eua.eu/resources/publications/946:eea-position.html> ; <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁵¹¹ https://www.hrk.de/fileadmin/redaktion/hrk/01-Bilder/01-03-Personen/01-03-01-HRK/20_10_19_Gastbeitrag_FAZ_Langfassung_engl_dt.pdf

⁵¹² <https://www.cesaer.org/content/5-operations/2020/20201008-position-towards-a-dynamic-european-education-area-driven-by-excellence.pdf>

⁵¹³ https://www.hrk.de/fileadmin/redaktion/hrk/01-Bilder/01-03-Personen/01-03-01-HRK/20_10_19_Gastbeitrag_FAZ_Langfassung_engl_dt.pdf

⁵¹⁴ *ibid*

⁵¹⁵ <https://www.cesaer.org/news/sustainable-funding-for-universities-of-the-future-477/>

⁵¹⁶ <https://www.cesaer.org/news/open-letter-with-recommendations-on-effective-funding-for-inter-and-transdisciplinary-research-732/>

⁵¹⁷ <https://www.cesaer.org/news/sustainable-funding-for-universities-of-the-future-477/> ; <https://www.the-guild.eu/publications/looking-to-the-future.pdf>

⁵¹⁸ <https://eua.eu/resources/publications/946:eea-position.html>

support for both quality and inclusiveness of higher education; the need for more cooperation between higher education institutions and between higher education institutions and their ecosystems and for lifting barriers to such cooperation; the need for the re-skilling and up-skilling of Europe's population and the role of higher education therein in a perspective of lifelong learning; the key role of universities in tackling societal challenges such as the digital and green transitions; and the need to further promote internationalisation and diverse global partnerships.