

The 4th Pillar of the Bologna Process

Proposal for the Implementation of University Lifelong Learning into the Bologna Process

Inventory and implementation proposal –

Living Paper

prepared by the team of experts from the

**EU.ACE – European University for Academic Continuing
Education consortium**



Executive Summary

The EU.ACE Consortium advocates for the integration of **University Lifelong Learning (ULLL)** as the **Fourth Pillar of the Bologna Process**, complementing the existing three pillars: study cycles, ECTS, and quality assurance. This Fourth Pillar is essential to transform the **Union of Skills** initiative into reality, ensuring that reskilling and upskilling become a regular part of professional life and that European citizens are equipped with the competencies needed for the future. ULLL should also contribute to developing one's qualities throughout life based on personal motivations and possibilities, to make a lasting contribution to society, the work environment, health, and happiness—both now and in the future.

ULLL is not an additional layer but a core dimension of the Bologna architecture, dynamically interacting with all three existing pillars. Since higher education systems alone have not sufficiently delivered on inclusiveness, ULLL must be implemented in a more structured and formalised manner to address this challenge. It enables flexible entry and exit points within study cycles, makes systematic use of ECTS to recognise prior and non-formal learning, and extends quality assurance frameworks to lifelong learning provision. Embedding ULLL within (inter)national and regional lifelong learning ecosystems strengthens permeability, inclusiveness, and accessibility across the European Higher Education Area (EHEA), firmly positioning lifelong learning as a foundational principle rather than a peripheral option.

Responsibility for lifelong learning should rest with **universities and higher education institutions**, as they are the places where individuals can further specialize and maintain expertise at an academic level. While many private providers exist, their offerings often vary widely in standards and transparency. In a context where fewer generalists are needed and the continuous development of experts is increasingly crucial, higher education must play a central role. A strong vision that positions universities as key actors in high-quality LLL ecosystems will ensure coherent, academically grounded provision and strengthen the long-term development of expertise across the European Higher Education Area.

Recent policy developments, including the **2024 Bologna Implementation Report** and the **Principles and Guidelines to Strengthen the Social Dimension of Higher Education (2020)**, underscore the urgency of this integration. Lifelong learning and ACE are now recognized as key drivers for an inclusive EHEA by 2030, reframing higher education as a continuum beyond initial qualifications. Flexible study modes, recognition of prior learning, micro-credential pathways and the key role of workplace learning are central to this vision.

To address these challenges, **EU.ACE proposes that the European Commission initiate a Council Recommendation on Promoting Lifelong Learning in Higher Education and its Integration into the EHEA**, aligned with the Union of Skills initiative. This recommendation would:

- Encourage higher education institutions to adopt strategic approaches to lifelong learning and embed themselves in the LLL ecosystem by closely collaborating with industry and other stakeholders such as vocational educational institutes and (local) government;
- Invite Member States to develop national action plans for LLL in higher education;

- Support micro-credentials, flexible learning pathways, recognition of prior learning and the key role of workplace learning;
- Establish indicators, monitoring, and reporting mechanisms consistent with EQF.

Consultations will involve Member States, EUA, EURASHE, ESU, and the Bologna Follow-Up Group, with the goal of embedding lifelong learning as a strategic objective in the **2027 Bologna Communiqué**.

The following sections present the current state of ULLL and ACE in the EHEA, highlight disparities and opportunities, and outline **five strategic proposals** for implementing the 4th Pillar, ensuring that lifelong learning becomes a defining feature of European higher education.

1. Introduction to the EU.ACE Consortium

EU.ACE brings together 10 universities from 9 countries, representing over 185,000 students and 17,500 staff, united by a strong commitment to university Lifelong learning and academic continuing education.

The consortium brings together a diverse group of universities across Europe. It is coordinated by the Universität für Weiterbildung Krems in Austria. It includes the Conservatoire National des Arts et Métiers (Le Cnam) in France, Andrásy Universität Budapest in Hungary, Universität Ulm in Germany, and Universitatea „1 Decembrie 1918” din Alba Iulia in Romania. Additional members are HSLU Hochschule Luzern in Switzerland, Turku University of Applied Sciences in Finland, Hogeschool Utrecht in the Netherlands, Fundacion San Pablo CEU in Spain (comprising Universidad CEU San Pablo and Universidad CEU Cardenal Herrera), and Univerzitet u Zenici in Bosnia and Herzegovina.

The EU.ACE consortium is fundamentally committed to promoting lifelong learning, helping individuals acquire and continuously update the competences needed to navigate the uncertainties of life, work, and career development. Central to this mission is fully integrating university continuing education as a structural element of the Bologna system and the European Higher Education Area. To achieve this, the consortium is reorganizing its learning offerings, adapting research, innovation, and societal outreach activities, strengthening leadership and management, and prioritizing human resources development to support high-quality lifelong learning provision.

Collaborative actions within the consortium are designed to complement and enhance one another, creating a synergistic effect that strengthens LLL across all partner institutions. The consortium places particular emphasis on innovative pilot projects that test and shape new strategies for sustainable and inclusive higher education, with a focus on university-level lifelong learning (ULLL). All activities are grounded in the core missions of the partner universities, ensuring that LLL is fully embedded in teaching, research, and engagement.

Through these efforts, the EU.ACE consortium aims to create “lighthouses” – exemplary lifelong learning initiatives that directly align with the strategic priorities of the European Higher Education Area, serving as models to expand access, quality, and portability of lifelong learning opportunities across Europe.

2. Definition of the 4th Pillar

The purpose of this living paper is not to provide an overview of existing study programs or academic degrees, nor to present best practice examples. Instead, it aims to operate at a policy level, addressing the strategic question of how University Lifelong Learning (ULLL) can be formally established as an integral element of the Bologna Process. The focus is on the systemic dimension, rather than on institutional details, with the ultimate goal of embedding lifelong learning into the European Higher Education Area (EHEA) as a structural component alongside the existing Bologna pillars.

This paper approaches the topic through definition, desk research, and comparative analysis, using the EU.ACE consortium as a reference point. By examining diverse national contexts and institutional strategies, it identifies key challenges and opportunities for integrating ULLL into the Bologna architecture. The analysis highlights the need for harmonization, quality assurance, and permeability across education systems, while emphasizing the role of universities as important actors in delivering lifelong learning in a transparent and standardized manner.

The EU.ACE Consortium understands the 4th Pillar of Bologna as the integration of University Lifelong Learning (ULLL) into the existing Bologna Framework, which is currently built upon three interrelated pillars or key commitments: (1) the three study cycles, (2) the European Credit Transfer and Accumulation System (ECTS), and (3) Quality Assurance (QA) (European Commission, EACEA & Eurydice, 2024)¹.

Within this understanding, University Lifelong Learning is not perceived as an additional or separate element, but as an integral and inseparable dimension of all three components. ULLL interacts dynamically with the study cycles by enabling flexible entry and exit points, supports the use of ECTS as a tool for recognizing and validating prior and non-formal learning, and reinforces QA by extending quality processes to continuing education and lifelong learning offered within universities. In this sense, the 4th Pillar is the path we transform the “Union of Skills” into reality. This is how the objectives, values, and principles Europe has set for the future regarding reskilling, upskilling, and equipping European citizens with the competencies needed for the future are achieved.

Furthermore, ULLL is regarded as an essential part of the European learning pathway, contributing to the permeability and inclusiveness of higher education and ensuring that learning opportunities are accessible to individuals at all stages of their lives and careers. In this way, the Fourth Pillar complements and strengthens the Bologna architecture by embedding the lifelong learning principle at the very core of European higher education.

In this regard, the latest Bologna Implementation Report 2024 and the *Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA* (2020) have positioned ACE and

¹ <https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/bologna-process>

LLL as a cornerstone topic under the broader umbrella of the Social Dimension, aimed at achieving an inclusive EHEA by 2030. This emerging dimension reframes higher education as a continuum that extends beyond initial qualification cycles, emphasising inclusiveness, flexibility, and accessibility throughout the lifespan. As articulated in Principles 2 and 3 of the Social Dimension Guidelines, ACE and LLL policies are vital for fostering equity and enabling adult learners, delayed-transition students, and professionals seeking reskilling or upskilling to participate in higher education through flexible study modes and recognition of prior learning (RPL), in all of which workplace learning is a crucial component. Moreover, the inclusion of non-degree and micro-credential pathways underscores the EHEA’s evolving commitment to lifelong and open learning systems (BFUG Working Group on Social Dimension, 2024; European Commission, EACEA & Eurydice, 2024).

3. Terminology, Definitions and ULLL in the EHEA

In the literature, the terms University Lifelong Learning (ULLL) and Academic Continuing Education (ACE) are often used interchangeably, which can create conceptual ambiguity. Linguistic and terminological differences across European contexts compound this. For example, in German academic discourse, the term “wissenschaftliche Weiterbildung” (scientific further education) is commonly used, whereas this expression is not established in Austria. Such national differences in terminology reflect divergent higher education cultures and can obscure cross-country comparison and policy alignment.

Within documents related to the European Higher Education Area (EHEA) and the Bologna Process, Lifelong Learning is the overarching term used to describe a cross-cutting task encompassing widening access to broader target groups and enabling flexible learning pathways. Lifelong learning is portrayed in EHEA documents as encompassing formal, non-formal, and informal learning throughout life. This broad framing provides a solid conceptual basis for theoretically grounded definitions of ULLL, as it highlights the wide interpretative space this concept occupies across the European higher education landscape.

While ULLL refers to the strategic and institutional commitment of universities to enable learning throughout individuals’ lives through a broad spectrum of provision, ACE is more commonly used to denote the specific programmes and formats that universities offer within that broader framework.

A useful operational definition of ULLL is provided by the European University Continuing Education Network (eucen)². According to eucen, ULLL refers to the provision by higher education institutions of learning opportunities, services, and research that support:

- the personal and professional development of a wide range of individuals – lifelong and lifewide
- the social, cultural and economic development of communities and the region.

It is at university level and research-based; it focuses primarily on the needs of the learners; and it is often developed and/or provided in collaboration with stakeholders and external actors.

² [BeFlex_FinalReport.pdf](#)

3.1 The Academic Continuing Education and LLL Landscape in the EHEA – Examples from EU.ACE Partner Countries

This chapter provides an overview of how lifelong learning (LLL) and academic continuing education (ACE) are organized across Europe, based on desk research and institutional information collected within the EU.ACE consortium. The consortium reflects broad geographical diversity and institutional variety, including universities originally established as ULLL/ACE institutions, comprehensive research universities, private universities, and universities of applied sciences.

In the following section, the paper presents current data with a particular focus on student participation in university lifelong learning within the consortium’s institutions. It highlights key differences and commonalities across European higher education, as well as the opportunities, capacities, and needs that shape their lifelong learning provision.

3.2 Data from the two leading Universities in Europe specializing in University Lifelong Learning and Academic Continuing Education

3.2.1 Conservatoire national des arts et métiers, Paris

Le Cnam (Conservatoire National des Arts et Métiers) was founded in 1794. Under the French Ministry of Higher Education, it is the only public higher-education institution entirely dedicated to offering lifelong learning opportunities to all. Its three main missions are: lifelong professional education, research & innovation, and the dissemination of scientific and technical culture. The average age of its students is 29.8 years.

Academic Year	2024/25	2023/24	2022/23	2021/22	2020/21
Number of enrolled students (Paris)	27.355	26.156	25.176	24.389	25.491
Number of enrolled students (regional centers)	28.718	29.920	29.519	30.833	32.211

Lifelong learning in France is structured by the Law on the Freedom to Choose One’s Professional Future (2018), which simplified access to training for all and introduced major reforms: creation of France Compétences (national authority for governance and funding), sectoral OPCOs for financing, flexible learning pathways, and the Qualiopi quality certification. The Validation of Acquired Experience (VAE) system allows individuals to obtain diplomas based on professional experience, ensuring equivalence with formal education. In 2024, 35 million people participated in at least one day of continuing education. Public higher education institutions (e.g., Le Cnam, universities) trained over 512,000 learners, including 55,000–80,000 annually at Le Cnam. Other major actors include CNFPT and France Travail. Funding combines public instruments (e.g., Personal Training Account – CPF, providing €500–€800 annually for training rights), public-private partnerships, and individual contributions. Target groups include employees, job seekers, graduates seeking specialization, and older adults engaging in lifelong education.

3.2.2 University for Continuing Education Krems

The University for Continuing Education Krems was founded in 1995 as Austria’s only public university dedicated exclusively to continuing education. Since its integration into the Austrian University Act framework, it has been one of the 23 Austrian public universities and is fully aligned with the Bologna Process. The average age of students at the University for Continuing Education Krems is 39, reflecting its clear focus on lifelong learners and working professionals.

Academic Year	Semester	2024W	2024S	2023W	2023S	2022W	2022S	2021W	2021S	2020W	2020S
Number of enrolled students		7 571	7 916	8 420	7 785	7 742	7 480	7 679	7 911	8 028	7 519

Numbers remain consistently high at the University for Continuing Education, with approximately 7,500 students enrolled each year, a remarkably high figure for an institution exclusively dedicated to lifelong learning.

In Austria, more than 365,000 regular students (or around 410,000 regular and non-regular students combined) make use of the broad range of study options across the four higher education sectors. These include 23 public universities, 21 universities of applied sciences, 14 teacher training colleges, two private universities of education, and 17 private universities. These institutions differ not only in their legal frameworks and funding structures but also in their educational missions and academic profiles.³ Since 2021, University Lifelong Learning (LLL) at NQF/EQF levels 6 and 7 has been fully regulated by law. All higher education sectors are entitled to offer lifelong learning programs that mirror regular academic studies in structure and quality.

It is important to note that, in Austria, a considerable number of learners pursue regular degree programmes on a part-time (on top of their regular work) basis. Their average age and learning patterns closely resemble those of ULLL students.⁴ This suggests the presence of a “hidden population” of lifelong learners within regular study programmes. Students who, although formally enrolled as regular students, effectively engage in university continuing education throughout the course of their studies.

3.3 Differences and similarities in University Lifelong Learning and Academic Continuing Education across Europe

³ [Hochschulsystem - Bundesministerium für Frauen, Wissenschaft und Forschung](#)

⁴ <https://unidata.gv.at/Pages/default.aspx>

This section highlights the main differences and similarities that emerged during the desk research conducted for this living paper.

Lifelong learning (LLL) and academic continuing education (ACE) are increasingly recognized as essential pillars for competitiveness, social inclusion, and innovation in Europe. However, the landscape across the European Higher Education Area (EHEA) is highly fragmented. While countries like Austria, France, Spain, Switzerland, and the Netherlands have established comprehensive strategies supported by legal frameworks, quality assurance, and strong university involvement, others, such as Romania, Bosnia and Hungary, still lack integrated systems and exhibit very low participation rates. Austria and Finland have made significant progress in regulating university lifelong learning, yet implementation remains uneven.

Romania

Romania and its Centru Region, with a population of 2.29 million and an employment rate of 46.6%, exemplify the urgency of addressing skills shortages that undermine EU competitiveness. Only 2.5% of adults participate in formal lifelong learning compared to the EU average of 12.7%, and just 31% of employees have basic digital skills. Professional training within enterprises is scarce, and the market is dominated by private providers, leaving universities underutilized in this domain. These gaps highlight the need for integrated strategies that embed lifelong learning within higher education as a structural component of the Bologna Process.⁵

Finland

Finland defines lifelong learning as “Continuous Learning,” emphasizing its relevance to working life. The Ministry of Education and Culture launched a national policy for university lifelong learning in 2022, supported by the Service Centre for Continuous Learning and Employment (SECLE), established in 2021. SECLE bridges labor market needs and employee skills, financing programs that enhance digital and vocational competencies. Recent reforms aim to embed flexibility and recognition of prior learning into higher education.

Germany

Germany embeds continuing education within the Bologna framework through modularity and ECTS. Universities offer structured programs for professionals, but participation remains uneven

⁵ [1] Data for 2023: <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20231016-2>

[2] <https://www.cedefop.europa.eu/en/data-insights/measuring-participation-adult-learning-new-targets-methods-and-data>

[3] Resurse umane pentru specializarea inteligentă- nevoile și oferta de competențe digitale în administrație și economie, Agenția pentru dezvoltare regională Centru, 2022.

[4] <chrome-extension://efaidnbnmnnibpcajpcglclefindmkaj/https://ec.europa.eu/eurostat/statistics-explained/SEPDF/cache/126206.pdf>

[5] https://ec.europa.eu/eurostat/databrowser/view/trng_ifs_01/default/table?lang=en&utm

across regions. Strong links exist between higher education and vocational training systems, yet challenges persist in scaling microcredentials and flexible pathways.

Hungary

Hungary adopted a Framework Strategy for Lifelong Learning, covering adult education, continuing learning, and validation of informal/non-formal skills. The original strategy dates back to 2005–2006, with updates for 2014–2020. While policy exists, implementation at the university level is limited, and participation rates remain low.

Netherlands

The Netherlands has one of the most advanced lifelong learning frameworks. National policy emphasizes flexibility and behavioral change to strengthen the learning culture. Government investments of approximately €1.2 billion (2022–2027) support subsidies (STAP, SLIM) and structural measures like learning rights and accounts. Universities actively offer microcredentials and collaborate closely with industry and also with vocational educational partner-institutions, but participation among individual with a skills development need and older workers remains a challenge.

Spain

Spain anchors lifelong learning in the Organic Law 2/2023 (LOSU), which defines permanent training as an essential mission of universities, empowering them to create programs and issue certificates, micro-credentials, and lifelong education degrees. Complementary regulations, such as Royal Decree 822/2021, ensure quality assurance and flexibility. Universities operate dedicated lifelong learning centers and networks like RUEPEP, while national strategies align with ET 2020 and ET 2030 goals. Private providers and business schools also play a role, alongside initiatives for active aging.

Switzerland

Switzerland operates under the Federal Act on Continuing Education and Training (WeBiG, 2017), which sets principles of individual responsibility, equal opportunities, and quality assurance. Universities offer high-quality programs but cannot use public funds to subsidize prices, maintaining a free market approach. Micro-credentials and modular programs are well integrated, and recognition of prior learning is strong.

Bosnia and Herzegovina

In Bosnia and Herzegovina, Lifelong Learning remains fragmented, as the recognition of non-formal and informal learning is only partially implemented and varies significantly across entities. While a national qualifications framework exists, a coherent country-wide LLL strategy is still lacking. A notable advancement is the Adult Education Strategy 2021–2031 of Republika Srpska, which explicitly defines adult education as part of the education system and guarantees adults the right to continuous learning to support personal development, employability and

active social participation. Overall, however, major structural and implementation differences persist, and the full potential of LLL is not yet being realised.

3.4 Conclusion of country examples

Preventing a Patchwork System

A major issue is that not all countries have developed offerings or strategies at the university or higher education level. This is problematic because higher education institutions could serve as a key differentiator within the EHEA, distinguishing public, quality-assured provision from the often opaque and unregulated private market. Without strong university involvement, lifelong learning risks becoming a patchwork of private initiatives, lacking transparency and quality assurance. The aim is to develop strong (inter)national and regional ecosystems for LLL in which all stakeholders, including universities, can fulfill their roles effectively.

Permeability and Bologna Alignment

Another critical concern is the lack of permeability between educational sectors in many countries. Flexible pathways enabling learners to move between formal, non-formal, and informal learning are essential for lifelong learning to function effectively. Yet, in several states, these pathways are either underdeveloped or absent. Furthermore, LLL and ACE are not consistently aligned with Bologna principles, which undermines recognition of learning outcomes and comparability across borders.

Cost and Sustainability

One commonality across all systems is cost: implementing LLL and ACE requires substantial investment in infrastructure, policy development, institutional capacity and collaborative partnerships with industry. This raises questions about sustainable funding models and the role of public versus private actors. In this context, EU State Aid Law adds an additional layer of complexity, as the use of public funds for lifelong learning and continuing education must comply with the EU rules on competition and the prohibition of state aid that distorts markets. Countries must therefore develop financing strategies that distinguish between non-economic educational activities, which may be publicly funded without restrictions and economic activities – such as fee-based continuing education that competes with private providers – which may require cost-coverage. Without such clarity, HEIs risk legal uncertainty, which may hinder their ability to expand LLL and ACE offerings sustainably. Consequently, long-term strategies must integrate compliance with EU State Aid provisions to ensure that public funding supports HEIs effectively while maintaining fair competition across the EHEA⁶.

⁶ OECD (2022), *Wissenschaftliche Weiterbildung und der EU-Rahmen für staatliche Beihilfen: Auswirkungen auf den öffentlichen Hochschulsektor in Brandenburg*, OECD Publishing, Paris, <https://doi.org/10.1787/5d8eeb73-de>

4. Integration of the 4th Pillar – Impact and Challenges

The accelerating pace of technological change, demographic shifts, and the green and digital transitions require higher education systems to embrace lifelong learning as a core mission. Universities must move beyond traditional degree structures and provide flexible, inclusive pathways for upskilling and reskilling, where workplace learning plays a crucial role throughout professional life. While some European countries have advanced strategies for lifelong learning, others lack coherent frameworks, resulting in fragmentation and limited permeability between education and employment sectors.

Given the heterogeneous approaches to University Lifelong Learning (ULLL) across the countries represented in the EU.ACE Consortium, EU.ACE provides an ideal framework for launching pilot initiatives and developing country-specific case studies. These case studies serve as a basis for developing joint implementation projects, enabling universities to learn from one another and scale effective solutions. Participating institutions act as implementers and multipliers within their national contexts, creating impact not only for universities but also for local communities. Ultimately, this approach ensures that individuals directly benefit from the results, while lessons learned locally can feed into broader European Higher Education Area (EHEA) initiatives, maximizing reach and systemic impact.

The EU.ACE consortium is dedicated to transforming existing Academic Continuing Education (ACE) and ULLL approaches, which are not only heterogeneous across Europe but also rooted in economic, societal, ecological, and political contexts that may no longer align with future challenges. To ensure future relevance, EU.ACE aligns its conceptual work with forward-looking competency frameworks, including the **Future Skills 2030 framework** developed by the Stifterverband⁷. This framework identifies 30 key future competencies in five categories—foundational, transformative, community-oriented, digital, and technological—which together provide a basis for orienting learning provision toward the demands of rapidly changing socio-economic and technological environments.

As this policy paper sits between a scientific analysis and advisory guidance, the consortium begins its work with existing definitions and frameworks. At the same time, we can draft a more forward-looking definition based on the work carried out over the past year(s), providing an outlook on the intended direction of development. However, as this document is meant to be a “living paper,” and the consortium continues to develop new frameworks, instruments, and tools, this represents the first attempt to consolidate existing approaches from the consortium’s regions and then to roll them out Europe-wide.

The main aim, after establishing a theoretical framework and critically analyzing existing ULLL tools, is to operationalize these insights: to refine and reshape existing instruments and to define and create new ones that better fit the consortium’s strategic approach.

Formally integrating ULLL into the Bologna Process has the potential to strengthen permeability, inclusiveness, and accessibility across the EHEA and to position lifelong learning as a core principle rather than a peripheral option. At the same time, several critical challenges must be addressed. Increasing multinational workforces across Europe generate a growing need for

⁷ [Stifterverband+1](#)

English-language LLL provision and institutional strategies to meaningfully address **interculturality in teaching and learning environments**. Regions also face the dilemma of attracting skilled third-country nationals for training and education, only to see many leave after completing their programmes. Designing ULLL pathways that balance openness, regional talent retention, and individual mobility rights is therefore essential. Additionally, differences in national practices, quality assurance systems, and legal frameworks create barriers that must be navigated to ensure coherent and sustainable implementation.

Impact on Learners:

- i. **Wider Access and Equity:** LLL and ACE provide alternative learning pathways, such as recognition of prior learning (RPL) or adapting study offerings into more flexible models (part-time studies, blended or distance learning, workplace learning or accelerated, continuous learning lines from vocational education to higher education), which expand access to higher education beyond the traditional full-time degree-seeking students, contributing to social mobility and equity among diverse populations in societies. It promotes education that relies on individuals' academic abilities and motivation, rather than on their background or personal circumstances, serving as drivers to overcome socioeconomic barriers, fostering equity and accessibility among individuals (European Students' Union, 2024; OeAD, 2021; Schultz-de Vos, 2024).
- ii. **Personal and Social Fulfilment:** LLL empowers individuals to enter or return to higher education to 'follow their interests' and personal fulfilment, without disrupting their professional, family, or social commitments. It highlights the importance of education not only as a driver of economic growth but also as a means to promote human well-being and collective flourishing (European Students' Union, 2024; Fedeli et al., 2024; James, 2020).
- iii. **Career Advancement and Employability:** LLL offers individuals opportunities to develop, update, and broaden their professional skills at various life stages, which is especially important for workers seeking to upskill or reskill in response to evolving labour market demands. Through continuing education with workplace learning as a key component, higher education institutions help individuals sustain employability, support career growth and foster a more flexible and resilient workforce (European Students' Union, 2024; Fedeli et al., 2024).

Impact on Higher Education Institutions:

- i. **Fulfilment of the Third Mission:** Institutional engagement in LLL reinforces the public responsibility and third mission of universities. Through continuing education, higher education institutions extend their impact beyond teaching and research, engaging directly with local communities, industry and addressing real-world challenges. This commitment includes the transfer of research-based knowledge into society in tangible and socially beneficial ways, thereby strengthening universities' civic role and contribution to

sustainable and inclusive development (European Commission, EACEA & Eurydice, 2024; Fedeli et al., 2024; Schultz-de Vos, 2024).

- ii. **Institutional Innovation:** ACE units often function as spaces for institutional innovation within universities. Through these units, higher education institutions can experiment and test new academic programmes, delivery models, and pedagogical formats, such as online learning, blended approaches, cross-boundary learning environments and microcredentials, that later can become integrated into mainstream curricula, contributing to long-term strategic transformation within institutions (Schultz-de Vos, 2024).
- iii. **Capacity Building:** By embedding LLL and inclusive practices, higher education institutions enhance their institutional capacity to meet the needs of increasingly diverse student populations. This involves fostering inclusive learning environments and organisational cultures that value equity, diversity, and participation, which requires developing capacity building among staff, through professional development in inclusion and diversity, as well as the creation of flexible systems that support adult and non-traditional learners (European Commission, EACEA & Eurydice, 2022; European Commission, EACEA & Eurydice, 2024).

Impact on Labour Markets and Society:

- i. **Sustaining Democratic Societies:** The participation of diverse learner populations contributes to building inclusive, cohesive and democratic societies, aligning with the European Higher Education Area's commitment to promoting social justice, equality, and cohesion, as reaffirmed in the Bologna Process (European Commission, EACEA & Eurydice, 2024).
- ii. **Economic Competitiveness:** In the face of digital disruption and the rapidly evolving labour market, higher education institutions and continuing education units serve as strategic partners for employers, through an educational offering developed in co-creation between education and industry aimed at fostering innovation, reskilling, and upskilling that enhances both individual employability and the economic competitiveness of regions and industries (Fedeli et al., 2024; Schultz-de Vos, 2024).
- iii. **Addressing Global Challenges:** Integrating LLL within higher education supports progress toward global sustainability objectives, particularly the United Nations Sustainable Development Goal 4 (SDG-4) on inclusive and equitable quality education. The BFUG Working Group on Social Dimension (2024) emphasises that advancing LLL and equity in higher education strengthens societal capacity to address emerging challenges such as an ageing population, technological transformation, and social inequality. In this way, the EHEA's commitment to inclusion and LLL contributes directly to achieving the broader UN 2030 Agenda (BFUG Working Group on Social Dimension, 2024).

Challenges:

Regulatory and Structural Challenges

- i. **Default Orientation Towards Degrees:** Regulatory and organisational frameworks are geared by default toward traditional degree education, making it difficult to change or rapidly adapt processes for short, non-degree, or modular education (Gaebel & Zhang, 2025; Schultz-de Vos, 2024).
- ii. **Inconsistent Implementation:** Despite the existence of policies, the implementation of Social Dimension policies (and, by extension, LLL/ACE measures) remains sporadic and uneven across the EHEA, risking LLL measures being treated as peripheral concerns (European Students' Union, 2018; OeAD, 2021).
- iii. **Recognition Barriers:** The implementation of RPL is insufficient, with a high number of student unions reporting none or insufficient opportunities for recognition. There is a persistent lack of trust in validation procedures among stakeholders, which requires "reliable quality assurance procedures" and effective cooperation among stakeholders (European Commission, EACEA & Eurydice, 2024; European Students' Union, 2018).
- iv. **Collaboration across boundaries:** Optimal LLL requires collaboration across the boundaries of existing disciplines and domains, since it often has an interprofessional or transdisciplinary character. Besides, it requires collaboration across the boundary of education with industry, since workplace learning is a key component of LLL. Also, optimal LLL requires collaboration between educational institutions at different levels, such as senior secondary vocational institutions (EQF 1-4) and higher education institutions, for example, to offer accelerated continuous learning lines.

5. Integration of the 4th Pillar – Next steps

EU.ACE proposes to the European Commission to initiate a Council Recommendation on Promoting Lifelong Learning in Higher Education and its Integration into the Bologna Process. This initiative is aligned with the Union of Skills strategy, which aims to make upskilling and reskilling a regular part of people's professional lives, strengthen Europe's talent base, and enhance the Union's competitiveness.

The proposed recommendation would:

- Encourage higher education institutions to develop strategic approaches to lifelong learning;
- Invite Member States to adopt national action plans on LLL in higher education;
- Support the development of micro-credentials, flexible learning pathways, and recognition of prior learning, while paying attention to workplace learning as a key component of LLL;
- Establish indicators, monitoring, and reporting mechanisms in line with the Union of Skills and the European Qualifications Framework (EQF).

Process and Consultations:

The initiative will involve Member States, EUA (European University Association), EURASHE

(European Association of Institutions in Higher Education), ESU (European Students' Union), and the Bologna Follow-Up Group (BFUG). It will be introduced into the Bologna Follow-Up Process with the goal of having lifelong learning recognized as a strategic objective in the 2027 Bologna Communiqué.

To achieve this vision, the following five proposals outline the key steps for embedding University Lifelong Learning (ULLL) and Academic Continuing Education (ACE) into the Bologna Process.

I. Building a Common European Framework for the Recognition of Prior Learning and Experience

To enable real cross-border circulation of skills, the EU should reinforce portability and automatic recognition of learning outcomes, especially those gained through non-formal, informal and workplace-based learning. Despite many RPL projects, national implementation remains weak, limiting learners' mobility and the usability of their skills.

Implementing University Lifelong Learning as the fourth pillar of the Bologna Process would accelerate the coherent integration of RPL into national systems and improve quality assurance.

Key actions:

- Promote automatic recognition of micro-credentials, workplace learning and RPL outcomes.
- Ensure skills portability across institutions, sectors and countries.
- Support Member States in embedding RPL in national qualification and quality frameworks.

This would unlock the full value of lifelong learning and improve individuals' ability to adapt and move across Europe's labour markets.

II. Establishing a European Framework for Tracking the Employability and Career Development of Adult Learners (Lifelong-Learners)

- Create a European unit to monitor, analyse and disseminate data on adult learning trajectories.
- Define common indicators to measure employability, career progression and territorial impact of training programmes.
- Set up a dynamic observatory linking training and employment, involving universities, businesses and public employment services to guide upskilling policies at regional and European levels.
- Develop digital tools for longitudinal tracking of learners (portfolios, e-wallets) to evaluate programme effectiveness and inform curricular adjustments.

III. Enhancing the Permeability between Academia and Industry

To ensure that European citizens acquire both **specialised and transferable skills** needed for resilience and long-term employability, the European Commission should pursue a comprehensive policy approach to enhance permeability between higher education and the labour market. This requires coordinated action at EU, national and institutional levels and should be embedded in the broader framework of the European Education Area and the **Union of Skills** initiative.

At the same time, current trends show that many companies increasingly offer highly specialised internal training and upskilling programmes. While valuable, these programmes often bind employees contractually to the company and focus on very narrow, organisation-specific competencies. Such training alone does not provide the broader, future-oriented skillsets individuals need to remain adaptable and successful throughout their working lives.

For this reason, **higher education must reclaim a stronger role in shaping and providing high-quality, transferable learning opportunities**. Universities are uniquely positioned to offer education grounded in academic rigor, aligned with transparent quality assurance standards across the European Higher Education Area. In contrast, company-based training often operates without comparable or publicly visible quality frameworks. Universities can therefore ensure that learning is focused on future skills and long-term employability, not only on immediate, company-specific needs.

Policy Directions:

- **Promote Regional Skills Ecosystems**
Support Member States in creating regional LLL hubs that connect universities, industry and public stakeholders to coordinate skills development, innovation and outreach.
- **Embed High-Quality Workplace Learning**
Make workplace learning a recognised, quality-assured element of higher education LLL, supported by EU guidelines, recognition tools and targeted funding.
- **Safeguard Transferable Skills and Learner Mobility**
Counter overly company-specific training by promoting publicly regulated, academically grounded pathways that build broad, future-oriented skills and preserve learner autonomy.
- **Support Cross-Boundary Learning Environments**
Co-fund Living Labs, FabLabs and challenge-based formats that link learners, researchers and companies in solving real-world problems, especially in green and digital transitions.
- **Establish Structured Partnership Mechanisms**
Introduce EU-level tools—such as partnership charters and competence incubators—to reduce administrative barriers and ensure transparent, predictable cooperation between sectors.

IV. Introduce Professional Doctorates as Part of the Bologna Process

- Adapt doctoral education to include professional doctorates combining research with industry practice, enabling companies to retain high-potential professionals while advancing applied research.

Professional doctorates bridge the gap between academic rigor and practical application, strengthening Europe’s knowledge economy and supporting talent retention in key strategic sectors.

V. Further Introduce the Short-cycle Higher Education degree as Part of the Bologna Process

The Short-cycle Higher Education Degree (EQF level 5), already established in several European countries⁸, should be more fully integrated into the Bologna Process as a recognised qualification. Embedding this degree into the European framework would create a flexible and accessible entry point into higher education and strengthen permeability between education and employment sectors.

With its applied orientation and shorter duration, the Short-cycle Higher Education Degree is particularly well-suited to support **University Lifelong Learning**. National governments should therefore expand and tailor Short-cycle Higher Education Degree frameworks specifically to meet ULLL objectives and to better serve adult learners seeking timely upskilling or reskilling opportunities.

A broader, more coherent adoption of the Short-cycle Higher Education Degree states would lower barriers to participation and enable higher education institutions to respond more dynamically to evolving labour-market needs, thereby strengthening Europe's overall lifelong learning ecosystem.

VI. Strengthening Regional Skills Ecosystems Through a 4th Pillar for ULLL

To fully realise the potential of University Lifelong Learning (ULLL) across Europe, the EU should strengthen **regional skills ecosystems** as the foundation for responsive, future-oriented learning. Regional ecosystems, bringing together universities, companies, public authorities and civil society, ensure that learning provision matches local labour-market needs, supports inclusion, and enables individuals to upskill throughout their lives.

6. Tools and Instruments for Implementing ULLL as the 4th Pillar

This section brings together tools and instruments that may enable the implementation of lifelong learning as a fourth pillar within higher education systems. In line with its self-understanding as a **critical and reflective voice**, the EU.ACE consortium deliberately adopts an analytical and questioning perspective on existing structures, policies, and practices. Rather than reproducing established models uncritically, the consortium seeks to identify structural gaps, limitations, and mismatches between current systems and future societal needs.

The tools and instruments presented here therefore do not claim completeness nor finality. They include existing instruments that already contribute to the advancement of University Lifelong Learning, tools that require extension and further development, as well as emerging ideas that challenge prevailing approaches. This overview should be understood as work in progress, reflecting an ongoing process of critical analysis, experimentation, and co-creation within the consortium.

The EU.ACE consortium is actively engaged in the development, testing, and refinement of additional tools, concepts, and approaches. As such, this section represents a starting point for discussion and implementation rather than a closed catalogue, underscoring the consortium's

⁸ With different names, for example *Associate Degree* in The Netherlands, *Graduation diploma* in Romania. Source: Eurydice, [Short-cycle higher education](#)

ambition to contribute constructively, yet critically, to the systemic transformation of lifelong learning in higher education.

Building on the following initial collection of instruments for implementing lifelong learning (LLL), the consortium aims to identify the gaps that currently hinder effective implementation and to propose solutions. Where possible, it will also initiate pilot projects to drive or kick-start rapid solutions. This effort seeks to make these gaps visible across the entire European Higher Education Area (EHEA).

Tools/Instruments	Source	Status	How to stimulate improvement?	Evidence/examples
Formats: part-time study programmes	National HE systems; universities	Widely established, but unevenly regulated and often insufficiently flexible	Implementation in the entire EHEA is a must! Increase modularisation; improve recognition of prior learning (RPL); align study organisation with working patterns; strengthen digital and hybrid delivery	Professional bachelor's and master's programmes; part-time bachelor pathways in several EHEA countries
Formats: dual (work-integrated learning) programmes	National legislation; institutional initiatives	Strong in some countries, marginal or absent in others	Develop clear quality standards; incentivise employer engagement; integrate workplace learning outcomes into curricula; enhance cross-sector partnerships	Dual study programmes (e.g. Germany, Austria); cooperative doctoral models

Formats: micro-credentials	European Commission; universities	Rapidly emerging, but fragmented and weakly embedded	Establish institutional strategies; link micro-credentials to degree pathways; ensure quality assurance and ECTS compatibility; clarify recognition mechanisms	EU Council Recommendation on micro-credentials; university certificate programmes
Individual Learning Accounts/Europass	European Commission; national governments	Piloted in selected countries; limited university integration	Improve interoperability with HE systems; increase institutional uptake; connect ILAs to ACE/ULLL offers; simplify access for learners	National ILA pilots; Europass learning documentation
Recognition of Prior Learning (RPL)	Bologna Process; national frameworks	Formally anchored, but weakly implemented	Standardise procedures; strengthen staff capacity; link RPL systematically to admissions and credit recognition	EHEA commitments; institutional RPL policies
Flexible admission pathways for non-traditional learners	National legislation; universities	Highly heterogeneous	Reduce formal barriers; introduce competence-based access routes; align	Second-chance access schemes; mature-student admission

			with ULLL strategies	
Digital and hybrid learning infrastructures	Institutional strategies; national digital agendas	Widely used, but uneven in quality and accessibility	Invest in pedagogical development; ensure accessibility; integrate lifelong learning learners explicitly	Online degree tracks; blended professional programmes
Guidance, counselling and learner support structures	Universities; public employment services	Often underdeveloped for adult learners	Professionalise lifelong learning guidance; integrate career services and academic advising; tailor services to adult learners	Lifelong guidance centres; university continuing education units

6.1 Higher Education Learning Accounts: A First Concrete Example

As announced, this instrument provides the first concrete example of how lifelong learning can be implemented in practice.

The Higher Education Learning Accounts initiative addresses several critical gaps in current lifelong learning frameworks. Implementation of Individual Learning Accounts remains limited, excluding many adults outside the labor force and restricting access to higher education and strategic skills. Quality assurance is often inconsistent, and staff are not systematically trained to deliver ULLL programs. It proposes an open-access, long-term, and strategically funded learning account system, coupled with competency-based staff development, to expand participation, ensure program quality, and make learning outcomes portable across Europe.

Problem	Solution	Expected Impact
Limited implementation of ILAs; only 14 Member States piloting or running initiatives	Open-access learning accounts for all adults (18+) via HEIs, with support for underrepresented groups	Broader participation in lifelong learning across Europe
Exclusion of citizens outside the labor force (young	Accounts accumulate over 5+ years, preserved during unemployment or career transitions.	Continuous learning opportunities regardless of employment status

Problem	Solution	Expected Impact
NEETs, older unemployed adults)		
Limited access to higher education and strategic skills; lack of QA	Strategic skill top-ups (digital, green, healthcare, Industry 4.0), QA via ESG-aligned programs, linked to Europass Digital Credentials	Improved quality, portability, and relevance of learning; inclusion in HE and labor market
Lack of trained staff to deliver ULLL programs	Competency-based training pathways for teachers and trainers (building on EU.ACE, Le CNAM, UWK initiatives)	Higher quality delivery of ULLL, better alignment with learner needs and labor market demands

7. Conclusions and Outlook

Integrating University Lifelong Learning (ULLL) into the Bologna Process would have far-reaching implications for the European Higher Education Area. One of the most significant benefits is improved **permeability** across the education and employment sectors. This includes easier recognition of prior learning (RPL) and work-based experience, enabling learners to transition seamlessly between formal degree programs and continuing education. Such flexibility would also foster stronger mutual understanding and closer collaboration between academia and the professional world, while increasing mobility for learners who seek to combine academic and professional development throughout their careers.

Financial aspects represent another critical dimension. Integration will require clear tuition models that balance publicly funded and privately financed options, as well as a defined role for employers in co-financing lifelong learning opportunities. State support mechanisms, such as loans, grants, and scholarships or regional funding, must be adapted to include lifelong learning pathways. Expanding access to public funding schemes for adult learners would significantly enhance participation, but this will also necessitate harmonization across European states to ensure equity and comparability.

Finally, successful implementation depends on **intensive collaboration with work-field partners**, particularly at the regional level. Co-creation of programs with industry stakeholders will strengthen relevance and responsiveness to labor market needs. Building regional learning ecosystems that connect universities, businesses, and public actors will be essential for creating sustainable, inclusive lifelong learning structures that support Europe's competitiveness and social cohesion. Vocational educational institutes are also part of national and regional learning ecosystems, and are therefore also seen as natural partners in LLL.

The next steps of the consortium will be

The next steps of the consortium will include structured discussions with EURASHE and the EUA to present and align on the EU.ACE approach, and to define how the consortium can meaningfully contribute to existing lifelong learning (LLL) working groups. In parallel, the topic will be advanced through national channels—specifically ministries and national BFUG representatives—into the BFUG, with the aim of initiating the preparatory work for adoption by the Bologna Ministerial Conference, including the development of appropriate implementing instruments. Further consultations with the European Commission will be pursued to support the initiation of a Council Recommendation. To underpin these activities effectively, the announced case studies will be finalised and substantiated with robust facts and figures, and the analysis of relevant tools and instruments will be further deepened.