

UNIVERSITY OF BUCHAREST  
FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES  
DOCTORAL SCHOOL OF PSYCHOLOGY AND EDUCATIONAL SCIENCES



UNIVERSITY OF  
BUCHAREST  
— VIRTUTE ET SAPIENTIA

# DOCTORAL THESIS

## *EXTENDED SUMMARY*

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Bucharest,

2025

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**Transforming Higher Education:  
Policy, Practice, and Reflection on Micro-Credentials,  
with European Degrees and Embedded Mobility in a Transnational Context**

Doctoral supervisor

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## SUMMARY

European higher education is experiencing profound transformation, shaped by dynamic shifts in societal expectations, technological advances, evolving labour market demands, and strategic policy interventions. Central to this transformative narrative are three interconnected educational innovations: *micro-credentials*, the *European Degree*, and *embedded mobility*. These developments represent not merely incremental reforms but substantial shifts away from traditional, rigid curricular frameworks towards modular, flexible, and transnational learning arrangements. This doctoral thesis rigorously investigates these emerging educational paradigms within the European Higher Education Area (EHEA), systematically analysing their impacts across policy formulation, institutional practice, stakeholder engagement, and digitalisation strategies.

Over the past two decades, the Bologna Process and the development of the EHEA have fundamentally restructured the European higher education landscape, harmonising degree cycles, promoting transparency in qualifications frameworks, and advocating extensive international collaboration. Within this evolving framework, European University Alliances have emerged as powerful incubators for educational innovation, piloting new curricular models, establishing transnational governance structures, and promoting innovative mobility schemes. Against this backdrop, the thesis specifically explores how micro-credentials, the European Degree, and embedded mobility function not only as innovative educational instruments but also as lenses through which broader educational transformations can be examined and understood.

The thesis is structured around four explicitly defined and interrelated research objectives. First, it investigates *policy coherence and governance structures*, focusing on how European and national policy frameworks influence the adoption and implementation of educational innovations. Second, it critically examines *institutional implementation strategies*, analysing how higher education institutions (HEIs) translate macro-level policies into practical and pedagogically innovative learning arrangements. Third, it explores *stakeholder and community engagement and perceptions*, examining the perspectives, experiences, and acceptance levels of students, academic staff, institutional leaders, and external stakeholders such as employers and policymakers. Fourth, the thesis examines *digitalisation and future-oriented developments*, investigating how emerging digital technologies and credential infrastructures support the scalability, transparency, and cross-border recognition of new educational models.

To systematically explore these dimensions, the research employs *a robust mixed-methods research design*, integrating qualitative comparative policy analysis, detailed institutional case studies, and comprehensive quantitative stakeholder surveys. At the policy level, the study extensively examines key European frameworks, revealing critical opportunities and persistent barriers to effective implementation, particularly around recognition, accreditation, and regulatory coherence across national contexts. Empirically, the institutional dimension is explored through in-depth case studies within HEIs and European University Alliances. These institutional analyses vividly demonstrate diverse strategies adopted by universities to operationalise micro-credentials, the European Degree, and embedded mobility within their curricula.

Notably, micro-credentials are increasingly positioned as essential tools for curricular flexibilisation, rapid skill enhancement, and alignment with dynamic labour market demands, enacting as a new philosophy for learning experiences and pathways. However, substantial challenges persist, including uneven accreditation practices, fragmented recognition frameworks, and varied institutional capacities. Institutional case studies further highlight how successful implementation necessitates significant organisational adjustments, proactive leadership, and strategic resource allocation.

The European Degree initiative illustrates both the transformative potential and the inherent complexity of transnational educational models. European Degrees aim to simplify recognition processes, enhance transnational mobility, and reinforce a shared European academic identity. Nevertheless, empirical findings indicate significant structural and regulatory frictions, administrative complexities, and varied stakeholder acceptance across different national contexts, reflecting the tension between institutional autonomy and the need for European-wide coherence.

Embedded mobility, including hybrid formats such as COIL and BIPs integrated within learning arrangements, emerges as a particularly promising mechanism for widening student access to international experiences, significantly enhancing intercultural competencies and promoting inclusive internationalisation. Empirical evidence strongly supports the assertion that embedded mobility increases student participation and engagement compared to traditional long-term mobility schemes. Yet, despite clear benefits, curricular integration remains inconsistent, with substantial variability in implementation quality, recognition mechanisms, and institutional support frameworks.

Stakeholder and community perceptions, systematically captured through quantitative surveys and qualitative feedback, form a crucial component of the research. Findings reveal

broad yet conditional support among academic communities, institutional leaders, and students for these transformative innovations. Stakeholders consistently emphasise the importance of clearly defined quality assurance measures, transparent recognition processes, and proved labour market relevance. Students, particularly, highlight the added value and attractiveness of flexible learning pathways, micro-credentials, and embedded international experiences, while simultaneously expressing concerns over potential inequalities related to digital divides, institutional capacities, and regulatory inconsistencies.

Drawing from comprehensive empirical findings and extensive policy analysis, the thesis presents a novel conceptual framework, depicted as *a three-layered inverted pyramid*. This conceptual model vividly illustrates the hierarchical yet interdependent relationships among macro-level policy frameworks, meso-level institutional strategies, and micro-level stakeholder engagement. Crucially, the model underscores that while coherent policy structures and institutional innovations are indispensable for initiating educational transformations, long-term sustainability ultimately depends critically on stakeholder trust, recognition, and active involvement. This finding represents a fundamental theoretical and practical contribution, operationalised through feedback loops and interdependencies formulated through the *Frameworks-Implementation-Engagement (FIE) Model*, highlighting stakeholder engagement as the pivotal factor that determines the success or failure of transformative educational initiatives.

Strategically, the thesis offers substantial implications and recommendations for policymakers, institutional leaders, and educational practitioners. Recommendations emphasise the urgent need for enhanced coherence and interoperability across European and national accreditation and recognition frameworks, more flexible and modular institutional curriculum architectures, and proactive stakeholder engagement strategies. Strategic investments in digital infrastructure, interoperable credentialing solutions, and transparent quality mechanisms are further highlighted as critical enabling factors for ensuring cross-border recognition, credibility, and stakeholder trust.

Finally, the thesis explicitly aligns itself with the *Doctor Europaeus* philosophy, reflecting its underlying principles of transnational academic collaboration and proactive dissemination of European higher education innovations globally. By contributing substantial empirical insights, robust theoretical frameworks, and actionable strategic guidance, this thesis significantly enriches academic scholarship and policy discourse surrounding higher education transformation in Europe and internationally. Ultimately, it serves not merely as a comprehensive academic investigation but as a strategic roadmap guiding future-oriented,

flexible, and internationally integrated higher education systems that effectively respond to contemporary societal and economic demands.



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**LIST OF ABBREVIATIONS**

<b>AI</b>	Artificial Intelligence
<b>ANECA</b>	Spanish National Agency for Quality Assessment and Accreditation
<b>ANT</b>	Actor-Network Theory
<b>BIP</b>	Blended Intensive Programme
<b>CBE</b>	Competence-based education
<b>COIL</b>	Collaborative online international learning
<b>CPD</b>	Continuous professional development
<b>DEQAR</b>	European Quality Assurance Register for Higher Education
<b>EAQAJP</b>	European Approach for Quality Assurance of Joint Programmes
<b>EC</b>	European Commission
<b>ECTS</b>	European Credit Transfer and Accumulation System
<b>ED</b>	European Degree
<b>EDCL</b>	European Digital Credentials for Learning
<b>EDL</b>	European Degree Label
<b>EEA</b>	European Economic Area
<b>EHEA</b>	European Higher Education Area
<b>ELM</b>	European Learning Model
<b>EMJM</b>	Erasmus Mundus Joint Masters
<b>ENQA</b>	European Association for Quality Assurance in Higher Education
<b>EQAR</b>	European Quality Assurance Register
<b>EQF</b>	European Qualifications Framework
<b>ESCI</b>	European Student Card Initiative
<b>ESG</b>	European Standards and Guidelines
<b>EU</b>	European Union
<b>EUA</b>	European University Association
<b>EUI</b>	European Universities Initiative
<b>ERP</b>	Erasmus Without Papers
<b>FIE</b>	Frameworks-Implementation-Engagement
<b>HEI</b>	Higher education institution
<b>IaH</b>	Internationalisation at Home
<b>INQAAHE</b>	International Network for Quality Assurance Agencies in Higher Education
<b>IoC</b>	Internationalisation of Curriculum

<b>LLL</b>	Lifelong learning
<b>LMS</b>	Learning management system
<b>NGO</b>	Non-governmental organisation
<b>NQF</b>	National Qualifications Framework
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OMC</b>	Open Method of Coordination
<b>PBC</b>	Perceived behavioural control
<b>QA</b>	Quality assurance
<b>QF</b>	Qualifications framework
<b>SDGs</b>	Sustainable Development Goals
<b>SN</b>	Subjective norms
<b>TPB</b>	Theory of Planned Behaviour
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICA</b>	Network of Universities from the Capitals of Europe

## STUDIES

The thesis is based on the following original published studies, which are referred to in the text by their Roman numbers.

- I. **Cartîș, A.**, Leoste, J., Iucu, R., Kikkas, K., Tammemäe, K., Männik, K. (2023). Conceptualising Micro-credentials in the Higher Education Research Landscape. A Literature Review. In M. Dascalu, P. Marti, & F. Pozzi (Eds.), *Polyphonic Construction of Smart Learning Ecosystems. SLERD 2022. Smart Innovation, Systems and Technologies*, vol. 908 (pp. 191-203). Springer. [https://doi.org/10.1007/978-981-19-5240-1\\_13](https://doi.org/10.1007/978-981-19-5240-1_13)
- II. Iucu, R., & **Cartîș, A.** (2023). *D4.1. An analysis of the existing options that can help in building open and flexible learning paths. New building blocks of the Bologna Process: fundamental values – NewFAV project*. UEFISCDI Publishing. [https://uefiscdi.gov.ro/resource-866568-d4.1\\_an-analysis-of-existing-options.pdf](https://uefiscdi.gov.ro/resource-866568-d4.1_an-analysis-of-existing-options.pdf)
- III. Iucu, R., & **Cartîș, A.** (2024). *D4.3. A grid for programme design. New building blocks of the Bologna Process: fundamental values – NewFAV project*. UEFISCDI Publishing. [https://uefiscdi.gov.ro/resource-869039-D4.3\\_A-grid-for-programme-design.pdf](https://uefiscdi.gov.ro/resource-869039-D4.3_A-grid-for-programme-design.pdf)
- IV. Iucu, R., & **Cartîș, A.** (2024). *D4.4. Piloting reports on programme design grid. New building blocks of the Bologna Process: fundamental values – NewFAV project*. UEFISCDI Publishing. [https://uefiscdi.gov.ro/resource-864867-D4.4\\_Piloting-report-of-the-programme-design-grid.pdf%20](https://uefiscdi.gov.ro/resource-864867-D4.4_Piloting-report-of-the-programme-design-grid.pdf%20)
- V. Iucu, O., & **Cartîș, A.** (2025). Competency Profiles in Administrative Sciences. An Analysis of the Students' Perceptions and Possible Curricular Reshapes Through Micro-Credentials. *Transylvanian Review of Administrative Sciences*, 21(74), 5-29. <http://dx.doi.org/10.24193/tras.74E.1>
- VI. Iucu, R., Iftimescu, S., Gunnesch-Luca, G., **Cartîș, A.-M.**, Fernández de Pinedo, N., Papaioannou, S., Melley, A., & Capelli, M. (2024). Exploring Degrees of Connection: Challenges and Acceptance of the European Degree Label Towards Shaping the Future of Higher Education. In A. Curaj, C. M. Hâj & R. Pricopie (Eds.). *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 647-667). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_32](https://doi.org/10.1007/978-3-031-75140-0_32)

- VII.** Iucu, R., Iftimescu, S., **Cartiș, A.**, Fernández de Pinedo, Mitrano, M., & Capelli, M. (2024). *Final recommendations of the SMARTT project*. CIVIS, Europe's Civic University Alliance. SMARTT project.  
<https://doi.org/10.5281/zenodo.10899434>

Additionally, the thesis is also based on the following original studies not published yet, referred to in the text by their Roman numbers, as follows.

- VIII.** **Cartiș, A.** & Iucu, R. Empowering micro-credentials through European Universities Alliances and learning flexibilisation for sustainable development. <https://doi.org/10.17605/OSF.IO/H72WR> – under review at the *International Journal of Sustainability in Higher Education* (ISSN 1467-6370); presented at the *Symposium on Micro-Credentials and Sustainable Development* (20-21 February 2025, Tallin University)
- IX.** **Cartiș, A.** & Iucu, R. The Attractiveness of Embedded Mobility in Higher Education. Students' Perspective. <https://doi.org/10.17605/OSF.IO/E7QN3> – not under submission yet; presented at the *European Conference on Educational Research ECER2024* (23-25 August 2024, University of Nicosia)

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### **Related studies and contributions**

The author contributed to other related studies, in cooperation and under the coordination of the supervisor, which support the thesis and are referred to when suitable, but do not form the basis of thesis.

- Iucu, R., & **Cartiș, A.** (2025). Noua pedagogie universitară. Noua strategie europeană pentru universități. In N. L. Popa, C. Ceobanu, & C. Cucos (Eds.), *Pedagogie universitară*. Polirom.
- CIVIS, Europe's Civic University Alliance, Iucu, R., Iftimescu, S., **Cartiș, A.**, Fernández de Pinedo, N. (2024). *CIVIS's view on a Joint European Degree*.



*Input for European Commission call for evidence.* CIVIS, Europe's Civic University Alliance. <https://doi.org/10.5281/zenodo.10614063>

- Saso, L., Costreie, S., Iucu, R., & **Carțiș, A.** (2024). The innovative role of European Universities Alliances in the European Higher Education Area. *Internationalisation of Higher Education – Policy and Practice*, 2024(2), 23-47. <https://www.handbook-internationalisation.com/en/handbuch/gliederung/#/Beitragsdetailansicht/924/3898/The-innovative-role-of-European-Universities-Alliances-in-the-European-Higher-Education-Area>
- Iucu, R., Iftimescu, S., Melley, A., & **Carțiș, A.** (2023). *SMARTT: EUROSUD Report of Quantitative & Qualitative Analysis*. CIVIS, Europe's Civic University Alliance. SMARTT project. <https://doi.org/10.5281/zenodo.10444510>
- Iucu, R., Iftimescu, S., Melley, A., & **Carțiș, A.** (2023). *SMARTT Report on EUROSUD Programme*. CIVIS, Europe's Civic University Alliance. SMARTT project. <https://doi.org/10.5281/zenodo.10444983>
- Iucu, R., Ciolan, L., Nedelcu, A., Zus, R., Dumitrache, A., **Carțiș, A.**, Vennarini, L., Fernández de Pinedo, N., & Pericică, A. (2022). *Digitally Enhanced Mobility: CIVIS Handbook on Virtual Mobility*. CIVIS, a European Civic University. <https://doi.org/10.5281/zenodo.6090251>
- Zus, R., Fernández de Pinedo, N., Vennarini, L., Dumitrache, A., **Carțiș, A.**, & Iucu, R. (2022). A Responsive Approach to the New Academic Mobility. Building a Conceptual Framework for Embedding Digitally Enhanced Mobility in a European University. In A. M. Dima & V. M. Vargas (Eds.), *Fostering Recovery through Metaverse Business Modelling. Proceedings of the 5th International Conference on Economics and Social Sciences (2022)* (pp. 458-468). Sciendo. <https://doi.org/10.2478/9788367405072-041>
- Iucu, R., Ciolan, L., Nedelcu, A., & **Carțiș, A.** (2021). *Why micro-credentials should become educational “macro-policies” for defining the future European study programmes*. University of Bucharest. <https://doi.org/10.5281/zenodo.6088135>

***DEDICATIO***

*Deo Optimo Maximo, fonti omnis sapientiae,  
uxori carissimae, vitae fidissimae comiti,  
parentibus dilectissimis,  
magistris eruditissimis,  
amicis fidelibus,  
quorum doctrina, prudentia et amor perpetua mihi lux atque firmamentum fuerunt,  
grato humili animo dedico.*

## 1. INTRODUCTION

### 1.1. Context and rationale

Over the past two decades, higher education across Europe has experienced profound transformations, catalysed by shifting societal demands, rapid technological advancements, and sustained, strategically driven policy interventions. At the heart of this evolution lies the establishment of the European Higher Education Area (EHEA) and the Bologna Process, initiatives which have fundamentally reshaped the academic landscape, redefining governance mechanisms, curricular architectures, and collaborative paradigms. With their inception at the dawn of the twenty-first century, these reforms introduced common degree cycles, standardised credit systems (*European Credit Transfer and Accumulation System – ECTS*), and harmonised quality assurance (QA) frameworks, irrevocably shapeshifting the very fabric of higher education policy and practice across the continent.

Integral to this transformative trajectory is a marked transition from traditional, static educational structures towards dynamic and responsive learning processes. Within this evolution, new institutional and trans-institutional configurations have emerged, notably exemplified by the establishment and expansion of European University Alliances. These alliances embody pioneering ecosystems for educational innovation, transnational cooperation, and curricular experimentation, transcending national boundaries and disciplinary constraints to forge innovative educational landscapes. Simultaneously, policy-driven developments continue to vigorously propel this trend, advocating explicitly for more flexible learning pathways, enhanced transnational collaboration, and a strategic focus on cultivating graduate employability and lifelong career adaptability.

Amid these broader structural shifts, learning transformation has risen to the forefront as both a policy imperative and institutional priority. Increasingly, traditional academic degree frameworks, characterised by rigid curricular sequences and mono-disciplinary specialisation, are yielding to modular, flexible, and competence-oriented educational models. Such curricular reinventions respond directly to an evolving student demographic, including working professionals, lifelong learners, and diverse international cohorts, whose educational trajectories necessitate alternative, more adaptive learning pathways. Consequently, higher education institutions (HEIs) are embracing competence-based education (CBE), micro-credential systems, and tailored joint degree programmes, aligning their educational offerings closely with contemporary labour market dynamics and individual learner aspirations.

In this rapidly shifting educational landscape, European Universities Alliances have positioned themselves as critical agents of change. Through fostering transnational curricular collaboration, supporting pedagogical innovation, and piloting embedded mobility experiences, alliances illustrate vividly the potential and vitality of transnational institutional cooperation. These collaborative entities are not merely policy-driven experiments; they represent dynamic laboratories that test and validate emerging models of educational delivery, digital integration, and global engagement, thus reshaping the educational experience at an unprecedented scale and scope.

Three innovative and closely interconnected concepts – *micro-credentials*, *European Degrees (EDs)*, and *embedded mobility* – have attained remarkable prominence within this evolving narrative. Micro-credentials have rapidly emerged as pivotal educational instruments designed explicitly to bridge gaps between higher education institutions and labour market expectations, developing a new learning philosophy in higher education. Characterised by their compact, verifiable nature, micro-credentials serve as critical conduits for rapid skill enhancement and lifelong learning (LLL). Yet, despite robust European policy endorsement and increasing institutional experimentation, significant challenges persist concerning their transnational recognition, portability, and accreditation, underscoring the necessity for coherent, comprehensive regulatory frameworks and collaborative governance models at the European level.

Parallel to this, the European Degree Label (EDL) initiative exemplifies an important policy attempt to harmonise joint educational programmes across institutional and national boundaries. Conceived as a policy solution to persistent administrative fragmentation and complex recognition processes, the EDL represents both an opportunity and a significant governance challenge. Its implementation foregrounds critical tensions between institutional autonomy and regulatory convergence, while simultaneously highlighting its vast potential to facilitate cross-border student mobility, enhance transnational learning experiences, and promote a distinctly European educational identity.

Complementing these learning innovations, embedded mobility has transformed traditional notions of student mobility. Moving beyond classical long-term Erasmus+ exchanges, embedded mobility integrates brief and/or physical exchanges with digitally enhanced collaborative formats, such as *Collaborative Online International Learning (COIL)* and *Blended Intensive Programmes (BIPs)*, seamlessly weaved in curriculum structures and programme designs. These innovative mobility modalities not only democratise international learning experiences, widening access to global perspectives, but also enrich institutional

curricula, embedding intercultural competences deeply within the core educational offer. By strategically embedding mobility within curricular structures, European institutions embrace the principles of *Internationalisation at Home* (IaH), significantly expanding opportunities for global engagement and intercultural dialogue.

The impetus behind these transformative educational paradigms is strongly grounded in both institutional ambition and explicit policy objectives. HEIs, responding strategically to shifting global trends and dynamic student profiles, increasingly recognise the imperative for more agile, responsive, and flexible educational frameworks. Such institutional reflexivity requires fundamental reconsiderations of governance approaches, curricular design strategies, and pedagogical philosophies. Concurrently, European and national policy frameworks can proactively support and incentivise these learning innovations, actively encouraging modularisation, digital transformation, and enhanced mobility as central pillars of educational reform and strategic institutional renewal.

Moreover, evolving labour market landscapes further amplify the urgency of these educational transformations. Rapid technological advancements, shifts in professional skills demands, and the necessity for lifelong upskilling and reskilling accentuate the critical role played by modular and stackable learning credentials. The emergence of coherent, transparent, and transnationally recognised qualification frameworks (QFs), supported by digital credentialing infrastructures, addresses the pressing need for clearly articulated skill pathways that resonate with contemporary employment expectations, bridging academia and the professional communities more seamlessly than ever before.

Collectively, these interconnected developments position this thesis within a vibrant, multifaceted context of ongoing European higher education transformation. Micro-credentials, EDs, and embedded mobility serve not merely as research objects, but as conceptual lenses through which the complex interactions between policy, institutional innovation, and stakeholder engagement can be meticulously analysed and critically understood. By rigorously interrogating these dynamics, this research seeks not only to contribute original academic insights but also to offer strategically relevant policy reflections and practical recommendations that will further enrich and sustain the transformative trajectory of higher education in Europe and beyond.

## **1.2. New perspectives provided by the Doctor Europaeus philosophy**

This section explores the philosophical foundations, academic significance, and contemporary relevance of the *Doctor Europaeus* pathway within the EHEA, examining its

principles in relation to the present doctoral research. Originating as an initiative to enhance doctoral education through transnational collaboration, intercultural dialogue, and academic excellence, the *Doctor Europaeus* serves as both a symbolic benchmark and a catalyst for innovation in European doctoral studies. While the absence of standardised criteria and formalised recognition across European countries poses challenges, the underlying values of this framework – namely academic mobility, rigorous international collaboration, multilingual scholarly engagement, and the cultivation of a distinctive European academic identity – provide an influential philosophical and practical orientation for contemporary doctoral research.

Subsequently, the section will systematically demonstrate how this thesis embodies the core principles of the *Doctor Europaeus*, highlighting the rigorous European dimension embedded throughout the research, evidenced by its focused analysis of transformative higher education policies within the European context. The alignment extends to robust international scholarly engagement, multilingual research approaches, and the proactive dissemination of European educational innovations globally. Ultimately, this alignment underscores the thesis's substantial contributions to European higher education and policy discourse, reinforcing its commitment to fostering transnational cooperation, enhancing learning flexibility, and promoting academic innovation within and beyond Europe.

### ***1.2.1. The Doctor Europaeus philosophy and its core principles***

The *Doctor Europaeus*, also known as the *European Doctorate*, reflects a distinctive philosophy that underpins doctoral education within the broader EHEA. Originating from an informal initiative of the former *Confederation of European Union Rectors' Conferences* (currently the European University Association – EUA) in 1991, the concept sought to enrich doctoral programmes by fostering transnational collaboration, intercultural dialogue, and academic excellence across Europe (EUA, 2005). Despite the significance and symbolic value associated with the *Doctor Europaeus*, no universally adopted framework or comprehensive criteria exists across European countries. Instead, practices vary considerably among institutions, countries, and disciplines.

The objectives of the *Doctor Europaeus* are deeply aligned with the EHEA's broader aims of promoting academic mobility, ensuring quality in research training, and reinforcing the attractiveness and competitiveness of European doctoral education. The criteria commonly cited to qualify for this designation, though applied inconsistently, typically include the research having a pronounced European dimension (leaving considerable scope

for interpretation regarding measurement criteria), active international collaboration through joint supervision and research stays abroad, multilingual proficiency, and a public defence involving an international panel (Université Paris-Saclay, 2023; University of Manchester, 2007; EUA, 2005).

More specifically, the prevailing criteria, originally articulated by the *Confederation of European Union Rectors' Conferences* and subsequently promoted by the EUA, include four core conditions:

- The doctoral research should be partially conducted during a research stay (or several combined stays) of at least three months in another European country.
- The thesis must be reviewed by at least two academic staff members from HEIs in two European countries other than the country where the defence occurs.
- The examining committee must include at least one member from a HEI in another European country.
- Part (or all) of the thesis defence must be conducted in an official language of the EU different from the language of the country where the defence takes place.

The variability in interpreting and applying these criteria across European countries and universities is significant. For example, the duration of required international research stays varies among institutions, typically ranging from three to six months (sometimes referred to as semesters, trimesters, or other equivalent periods), without explicit standardisation or central regulation at the European level. Another challenge is the exact list of “European countries” that are considered viable for the research stay, as well as for the reviewers and committee members. The terms “Europe” and “European” have broad and ambiguous meanings, ranging from a regional geographical perspective (Europe as a continent) to geopolitical supranational organisations (i.e., the European Union – EU), or to supranational communities extending beyond the former (i.e., the European Economic Area – EEA and EHEA). Additionally – and perhaps most importantly – measuring the “European dimension” of the programme and thesis is not guided by any clear or generally accepted indicators, leaving institutions, committees, and national / regional bodies to interpret this dimension frequently on a case-by-case basis. Such discrepancies have contributed to ongoing debates concerning the validity, consistency, and formal recognition of the *European Doctorate* as an academic qualification.

Critically, the *European Doctorate* lacks a clearly defined official status within broader policy frameworks. For instance, it does not feature explicitly within the EUA's current formal documentation nor in recent European policy statements. Additionally, at national levels, regulations on the *Doctor Europaeus* remain largely absent or informal, notably in countries such as Romania (the national context of this thesis), where recent legislation (*Law 199/2023 on Higher Education* and its subsidiary regulations) does not explicitly reference or regulate the *European Doctorate*.

Despite these ambiguities, the *Doctor Europaeus* continues to hold substantial potential value as a mechanism for enhancing the European dimension of doctoral studies, fostering transnational mobility, and reinforcing excellence and collaboration across national academic systems. As a symbolic label rather than an official credential, it significantly contributes to the visibility of doctoral research within the European academic community, promoting greater intercultural exchange and fostering a shared sense of European scholarly identity. This potential is further enhanced by recent developments around the ED, where the *European Doctorate* remains both a reference point and foundational ground for these evolving educational frameworks related to programmes for the third cycle (doctoral studies).

### ***1.2.2. Alignment of this thesis with the Doctor Europaeus framework***

Despite the varied interpretations and the lack of universally standardised guidelines surrounding the *Doctor Europaeus*, this doctoral thesis explicitly aligns itself with the broad philosophical and academic principles underpinning this European framework. Specifically, the research incorporates *rigorous transnational dimensions*, sustains *active international academic collaboration*, demonstrates *multilingual proficiency*, and engages deeply in *intercultural scholarly exchange*. Although formal recognition of the *Doctor Europaeus* remains inconsistent across European countries, its foundational principles – *transnational collaboration and academic excellence* – significantly inform this thesis's methodological, analytical, and dissemination strategies.

Firstly, the *European scope and policy relevance* of the research are explicitly evident. This thesis systematically analyses higher education policy transformations within the EHEA, focusing particularly on micro-credentials, EDs, and embedded mobility. The study thoroughly examines key European-level frameworks, policies, and initiatives such as the EDL, Erasmus+ BIPs, and micro-credential approach, assessing their implementation across multiple national and institutional contexts. By highlighting how these frameworks influence curriculum design, institutional governance, and stakeholder engagement, the thesis



contributes with original empirical insights that enrich current scholarly and policy debates within European higher education.

Secondly, *sustained international supervision and academic collaboration* are integral to the research process, significantly meeting *Doctor Europaeus* criteria. This thesis benefited from structured research stages at prominent European universities, including *King's College London* and *Universidad Autónoma de Madrid*, complemented by ongoing external academic reviews from experts associated with leading European and international institutions. Furthermore, scholarly dialogues and collaborative research efforts within the FOREU4ALL, UNICA Network, CIVIS Alliance, and other European and international consortia have significantly shaped the analytical depth and transnational perspective of the thesis, ensuring its rigorous evaluation and relevance within the European academic community.

Thirdly, *multilingual and cross-border academic engagement* is consistently demonstrated throughout the research. The thesis incorporates extensive analysis and synthesis of primary sources, policy documents, and scholarly literature drawn from multiple European and international languages and national contexts. This approach is also strengthened by the active participation in various international workshops, policy seminars, and academic events addressing European education policy and curriculum innovation. Notable examples include the *European Approach on Quality Assurance of Joint Programmes* workshop co-organised by CIVIS and ENQA, the *International Peer-Learning Activity: Micro-Credentials – Implementing Council Recommendations and Digital Credential Frameworks* organised by the OeAD, and the *Symposium on Qualifications, Training, Micro-Credentials and Sustainable Development* organised by Tallin University and Hamburg University of Applied Sciences.

Finally, this thesis actively displays *European models and best practices in global contexts*, prominently evidenced by the doctoral candidate's engagement in international training programmes organised by the International Network for Quality Assurance Agencies in Higher Education (INQAAHE). As a trainer and facilitator in *Module 1 – Unlocking the Potential of Micro-credentials in Higher Education*, the doctoral candidate disseminated European educational innovations and frameworks among high-ranking university representatives from all Latin American countries during the 2024-2025 academic year (INQAAHE, 2025). This programme represents a notable example of transnational knowledge transfer, significantly enhancing the global visibility and applicability of European higher education policies and innovations addressed within the thesis.

By explicitly embedding a European focus, fostering robust international collaboration, actively engaging multilingual scholarship, and disseminating European educational innovations globally, the thesis fully embodies the core principles of the *Doctor Europaeus* framework. Although formal recognition of this qualification varies across Europe, the underpinning values fundamentally inform the methodological integrity, transnational relevance, and practical contributions of this doctoral thesis.

### ***1.2.3. Contribution to European higher education and policy discourse***

This doctoral thesis makes significant academic and practical contributions to ongoing policy and institutional debates within the EHEA. By providing robust empirical insights and rigorous analysis of transformative educational practices, the research positions itself firmly within current European policy discourses, offering substantial implications for higher education reform in three distinct yet interconnected areas: *policy relevance*, *institutional implications*, and *long-term academic and policy contributions*.

Firstly, the *policy relevance* of this research is particularly pronounced in shaping discussions around the integration of micro-credentials into flexible learning pathways, the emerging ED as a transnational qualification model, and embedded mobility as a pivotal strategy for enhancing cross-border learning experiences. Empirical findings derived from comprehensive analyses of policy initiatives and institutional case studies, such as the EDL pilots and Erasmus+ BIPs, demonstrate clear pathways to overcoming existing challenges, notably in credential recognition, portability, and curricular integration across national contexts. The thesis also systematically identifies critical policy gaps, such as inconsistencies in accreditation and recognition practices for micro-credentials and joint degrees, offering concrete policy recommendations that could significantly enhance interoperability and cross-border educational coherence within the EHEA.

Secondly, the research provides critical *institutional implications* by highlighting how universities can effectively embed these innovations within existing degree structures. Detailed institutional case studies and empirical evidence from diverse institutions and European level networks and consortia illustrate best practices in curriculum flexibilisation, modular programme design, and embedded mobility. These findings suggest practical strategies for universities to develop robust QA mechanisms aligned with European standards and provide clear recognition frameworks for micro-credentials and embedded mobility experiences. The thesis underscores that successful institutional implementation requires a

nuanced balance between institutional autonomy, transnational cooperation, and adherence to evolving European frameworks and quality standards.

Thirdly, the thesis articulates *long-term academic and policy contributions* by reflecting on how its findings can sustainably inform future European higher education reforms beyond the immediate scope of the doctoral research, through models and processes that can support future developments, analyses, practical applications in higher education policy, research, and practice. The explicit alignment of the thesis with the *Doctor Europaeus* philosophy reinforces the broader aspiration towards an interconnected and globally recognised European academic space. This research significantly contributes to establishing a *coherent European learning model* by actively participating in policy dialogues and dissemination activities at prominent international forums, including symposia on micro-credentials, QA workshops, and strategic policy exchanges with European stakeholders.

Additionally, the thesis makes an explicit contribution to *global knowledge transfer* by highlighting European best practices internationally, through the active engagement in the INQAAHE training programme on micro-credentials, which disseminated European educational innovations and frameworks among high-ranking university representatives across Latin America (INQAAHE, 2025). This transnational knowledge transfer highlights the global relevance and applicability of European higher education innovations, reinforcing the global reputation and impact of the European educational model.

Finally, by integrating diverse multilingual sources, engaging deeply with international scholarly networks, and explicitly aligning research with contemporary policy developments such as the ED and modular learning approaches, the thesis exemplifies the very essence of a European scholarly identity. This alignment not only enhances the visibility and credibility of the thesis within European and global academic communities but also serves as a catalyst for further scholarly inquiries and policy innovation in the field of higher education transformation.

In conclusion, this thesis significantly advances current academic and policy debates within the EHEA, providing actionable insights and robust frameworks that guide institutional practice, policy formulation, and transnational collaboration. It reinforces the European dimension of higher education policy discourse and contributes fundamentally to the ongoing process of establishing a more integrated, innovative, and globally respected European academic space.

### 1.3. Problem statement

The core problem this thesis addresses lies at the intersection of three closely interwoven challenges facing contemporary higher education: the *persistent rigidity of traditional educational structures*, *fragmented policy landscapes*, and *uneven acceptance of emerging innovations* among the academic community and key stakeholders. Specifically, the thesis critically examines gaps in the *policy formulation*, *institutional implementation*, and *stakeholder acceptance* of micro-credentials, along with EDs, and embedded mobility, three transformative educational dimensions increasingly promoted at European and global levels yet still confronting substantial operational and recognition barriers.

Firstly, traditional higher education curricula and degree structures exhibit *marked rigidity*, often unable to effectively accommodate evolving student profiles, labour market needs, and broader societal transformations. Institutional frameworks continue to predominantly focus on *linear, discipline-bound, full-degree programmes*, frequently neglecting the dynamic and processual nature of contemporary learning. Such inflexibility constrains universities' capacities to provide personalised and modular educational experiences, critically needed in an era characterised by rapidly evolving skills requirements and LLL demands. Moreover, the predominant approach to learning remains *structurally rather than "processually" focused*, significantly limiting the potential of HEIs to adopt flexible, responsive, and innovative educational practices. Despite ongoing digital transformation and pedagogical innovations, HEIs often struggle to implement process-oriented approaches, thus impeding their ability to dynamically adapt curricula to emerging educational needs.

Secondly, considerable challenges persist in achieving *policy coherence* and *effective governance* at European, national, and institutional levels. Despite the explicit commitment of European level bodies to supporting micro-credentials, EDs, and embedded mobility, significant gaps remain. *Disjointed governance structures* and *fragmented regulatory frameworks* across different member states and institutions lead to inconsistencies and ambiguities, critically impacting the effective implementation of these innovations. Consequently, disparities in *policy interpretation*, *accreditation*, and *QA practices* create barriers to seamless credential portability and recognition, diminishing stakeholder confidence and hindering widespread adoption.

More specifically, *micro-credentials lack a universally recognised European framework* despite robust policy endorsements. Their integration into formal degree structures remains ambiguous, causing uncertainty regarding their academic credibility and

employer recognition. Moreover, the positioning of micro-credentials within institutional LLL strategies remains underdeveloped, limiting their effectiveness and broader institutional integration.

Regarding EDs, despite strategic European efforts like the EDL piloting process, *joint programmes still face profound legal, administrative, and sustainability challenges*. A significant obstacle lies in the absence of harmonised transnational structures compatible with diverse national regulations, impeding joint recognition and undermining stakeholder trust. Furthermore, ongoing scepticism among member states, universities, members of the academic community, and employers regarding the practical added value and tangible benefits of EDs restricts their uptake and sustained implementation.

Embedded mobility, including hybrid and virtual formats, faces comparable recognition and implementation difficulties. Although increasingly adopted, *such forms of mobility often lack formal curricular embedding and recognition within institutional learning frameworks*. This limitation directly influences their perceived academic and professional value among students and academic staff, leading to lower engagement and awareness compared to traditional optional mobility experiences. Additionally, embedded mobility faces inherent equity challenges, particularly in ensuring digital accessibility and inclusiveness for diverse student cohorts, including non-traditional learners and socio-economically disadvantaged groups.

Lastly, there exists a pronounced need for higher education systems to establish genuinely flexible and inclusive learning pathways underpinned by robust transnational collaboration. However, critical uncertainties remain regarding *how HEIs can practically and sustainably redesign learning arrangements to effectively integrate micro-credentials, EDs, and flexible mobility schemes*. Similarly, critical gaps persist concerning how current policy frameworks can facilitate enhanced cross-border recognition and interoperability, enabling seamless trans-institutional arrangements. Additionally, there is an urgent need for intensified dialogue and cooperation among universities, policymakers, and employers to align educational innovations with the evolving needs of students and the labour market.

Addressing these interconnected challenges requires *comprehensive analysis, empirical investigation, and targeted policy reflection*. Accordingly, this thesis aims to bridge these gaps through a robust and practice-oriented research approach, combining detailed policy analysis, institutional case studies, and stakeholder perceptions. By critically examining these transformative educational innovations within the broader European context, the thesis seeks not only to clarify existing barriers but also to offer strategic insights and

actionable recommendations that can guide sustainable policy and curricular reform, effectively supporting HEIs and stakeholders across Europe and beyond.

#### **1.4. Research objectives and policy questions**

This section delineates the core research objectives and policy-oriented questions that guide the empirical analysis and critical reflections of the thesis. Building directly upon the context, rationale, and defined problem statement, this subchapter explains what the thesis aims to accomplish, framing the investigation within four interconnected dimensions: *higher education policy and governance, institutional implementation and learning transformation, community and stakeholder perspectives and acceptance, and digitalisation and future developments*.

The *research objectives* provide a comprehensive analytical framework, systematically capturing how micro-credentials, EDs, and embedded mobility collectively influence higher education policies, institutional strategies, stakeholder acceptance, and future-oriented educational developments across Europe. These objectives offer clarity and structure for examining complex policy landscapes, institutional realities, and stakeholder dynamics, ensuring a rigorous, multidimensional approach that yields insightful empirical and strategic contributions.

Complementing these objectives, the *policy reflection milestones* serve as conceptual markers guiding the thesis's critical analysis. Rather than conventional research questions aiming at definitive answers, these reflective milestones enable a nuanced exploration of policy coherence, institutional experiences, and stakeholder attitudes, fostering a deeper understanding of the practical realities and strategic possibilities inherent in these transformative higher education innovations. While this moves beyond classical research approaches in educational sciences, it provides a better alignment with the transformative dimensions analysed by the thesis and the current policy environment.

Together, the *objectives* and *reflective milestones* facilitate a structured synthesis, positioning the thesis to contribute robust insights, practical recommendations, and informed strategic guidance to policymakers, HEIs, and broader academic and stakeholder communities across Europe and beyond.

##### **1.4.1. Research objectives**

The thesis investigates *how micro-credentials, along with EDs and embedded mobility collectively shape higher education policy and institutional practice across Europe*.

Grounded in robust empirical and policy-focused analysis, the thesis and the constitutive studies systematically address research objectives across four interrelated dimensions: *higher education policy and governance*, *institutional implementation and curriculum transformation*, *stakeholder acceptance and perspectives*, and *digitalisation and future developments*.

**Higher education policy and governance.** The first dimension critically examines the evolving European and national policy landscapes driving or constraining the three transformative dimensions of the thesis. Specifically, the thesis aims to:

- Analyse existing European and international level policy frameworks to assess their coherence, effectiveness, and influence on national policies and institutional practices.
- Explore national regulatory contexts and governance models, identifying enabling factors and barriers that influence implementation across diverse higher education systems.
- Critically analyse QA and accreditation frameworks at European, national, and institutional levels, identifying gaps and proposing adaptations necessary for effective recognition and portability of micro-credentials, EDs, and embedded mobility experiences.

**Institutional implementation and learning transformation.** This dimension addresses how HEIs practically integrate micro-credentials, EDs, and embedded mobility within curricula and strategic planning. Here, the thesis seeks to:

- Investigate institutional strategies and organisational culture shifts required to move from traditional curricular structures toward flexible, modular, and personalised learning pathways.
- Examine practical curriculum flexibilisation models that successfully balance pedagogical innovation, academic rigour, and employer recognition, ensuring coherent integration of new learning arrangements.
- Assess the sustainability and long-term viability of these educational innovations, examining institutional resource allocation, financial models, and strategic commitments essential for their sustained integration beyond initial funding periods.

**Community and stakeholder perspectives and acceptance.** The third dimension aims to capture stakeholder perspectives, acceptance, and engagement with micro-credentials, EDs, and embedded mobility. Specifically, the objectives are to:

- Evaluate the perceptions and attitudes among academic staff, students, institutional leaders, and external stakeholders (including employers, policymakers, and credential evaluators) toward these educational innovations, identifying areas of consensus, scepticism, and potential resistance.
- Investigate student motivations, challenges, and realised benefits from engaging with flexible learning pathways, addressing the inclusivity and accessibility dimensions of their experiences.
- Analyse equity, inclusivity, and accessibility implications, exploring potential barriers or biases affecting underrepresented and non-traditional learners, proposing strategies to foster genuine social inclusion and diversity.
- Assess institutional and stakeholder communication practices, proposing targeted dissemination strategies to enhance awareness, understanding, and buy-in for transformative higher education initiatives.

**Digitalisation and future developments.** The last dimension critically explores digital innovation's role in supporting higher education transformation and considers future policy developments and strategic implications. Specifically, the thesis seeks to:

- Examine how digital credentials and European digital frameworks enhance recognition, trust, transparency, and cross-border portability of micro-credentials and embedded mobility experiences.
- Identify emerging trends, persistent policy gaps, and future strategic directions for higher education reform, emphasising the opportunities and challenges posed by ongoing digital transformations.
- Evaluate the global relevance and potential for international knowledge transfer of European higher education innovations, specifically exploring how digitalisation, policy frameworks, and innovative institutional practices can inspire and inform higher education transformations globally.
- Develop and apply an empirical impact assessment framework, enabling systematic evaluation of the effectiveness, academic quality, professional relevance, and broader societal impacts of educational transformation initiatives.



Collectively, these integrated research objectives offer a comprehensive and multi-dimensional analytical framework, providing robust insights and strategic guidance for policymakers, HEIs, and stakeholders in navigating the ongoing transformation of European higher education.

#### **1.4.2. Policy reflection milestones**

The following *policy-driven reflection questions* serve as guiding principles for the analysis and empirical investigation throughout this thesis. These questions are not research questions in the traditional sense but rather *reflection milestones* that structure the analysis around the four core dimensions addressed in this thesis: *policy frameworks, institutional implementation and curriculum transformation, community and stakeholder perspectives, and digitalisation and future policy directions*. These dimensions represent central themes in ongoing expert and policy debates at the European and international levels.

Rather than seeking definitive answers, these reflective questions facilitate a critical examination of European, national, and institutional approaches to micro-credentials, EDs, and embedded mobility. The aim is to ensure a holistic and coherent analysis that connects macro-level policy frameworks with institutional practices and stakeholder engagement realities. These reflection points support the interpretation of empirical findings, enabling a structured synthesis of policy trends, institutional experiences, stakeholder attitudes, and strategic directions for future developments.

##### **Higher education policy and governance**

- How do existing European and national policy frameworks influence the development and implementation of micro-credentials, EDs, and embedded mobility initiatives within diverse higher education systems?
- Which governance models, regulatory approaches, and support mechanisms effectively facilitate or hinder recognition, portability, and interoperability across European HEIs and transnational collaborations?
- How does the EDL initiative impact recognition practices, QA standards, and the sustainability of joint degree programmes offered by European HEIs?

##### **Institutional implementation and learning transformation**

- What institutional strategies and organisational practices have proven most effective in embedding micro-credentials, EDs, and embedded mobility within curricula and broader strategic operations of universities?

- How do HEIs practically navigate accreditation challenges, implement modular and flexible learning pathways, and establish transnational partnerships to successfully adopt these educational innovations?
- What key barriers and challenges do universities encounter when integrating micro-credentials, embedded mobility, and EDs into their educational offer, and how can these obstacles be effectively mitigated through institutional reforms and policy support?

### **Community and stakeholder perspectives and acceptance**

- How do different stakeholders, including academic staff, students, institutional leaders, employers, policymakers, and credential evaluators, perceive the academic, professional, and societal value of micro-credentials, EDs, and embedded mobility, particularly regarding employability, academic progression, and LLL opportunities?
- What key factors influence student participation, engagement, and satisfaction with micro-credential programmes and embedded mobility experiences, especially considering diversity, inclusivity, and accessibility challenges?
- How can HEIs and policymakers effectively address equity, inclusivity, and accessibility concerns related to these innovations, ensuring broad acceptance, genuine diversity, and sustainable participation among underrepresented and non-traditional learner populations?

### **Digitalisation and future developments**

- In what ways do digital solutions effectively support or enhance the recognition, transferability, scalability, and transparency of micro-credentials and embedded mobility experiences?
- What emerging trends and persistent policy gaps exist within the digitalisation of credentials and educational mobility at the European level, and what strategic directions should be considered to ensure future readiness and sustained innovation in higher education?
- How can European higher education innovations in digitalisation, flexible learning pathways, and transnational education serve as global models or inspire international knowledge transfer, informing higher education policy and practice worldwide?

- What potential policy measures, regulatory frameworks, and funding mechanisms are needed at European, national, and institutional levels to ensure long-term sustainability, scalability, and expansion of micro-credentials, EDs, and embedded mobility initiatives?

These policy reflection milestones provide a robust and comprehensive framework for critically examining and synthesising empirical findings, institutional practices, stakeholder perspectives, and strategic insights, guiding the thesis towards meaningful, actionable recommendations for the continued transformation of European higher education.

## 1.5. Methodological Approaches

This section outlines the methodological approaches employed in the thesis, explicitly designed to explore how micro-credentials, EDs, and embedded mobility collectively shape higher education policies, institutional practices, and stakeholder experiences within Europe. Given the complexity and multilayered nature of transnational education transformations, *a robust mixed-methods research design* is adopted, systematically integrating qualitative and quantitative methodologies (Creswell & Creswell, 2023; Creswell & Clark, 2018; Johnson & Onwuegbuzie, 2004).

The methodological framework strategically addresses the diverse and often ambiguous *policy environments*, varied *institutional contexts*, and multifaceted *stakeholder perceptions* involved in implementing innovative educational practices. Following a detailed presentation of the research design and its rationale, the subchapter elaborates on the comprehensive empirical foundations established through an extensive range of primary and secondary data sources, alongside rigorous analytical strategies. Collectively, these methodological choices ensure a nuanced, empirically grounded, and methodologically coherent investigation into the transformative dynamics reshaping contemporary European higher education.

### 1.5.1. Research design and rationale

This thesis adopts *a mixed-methods research design*, explicitly integrating qualitative and quantitative approaches to systematically examine how micro-credentials, EDs, and embedded mobility collectively shape higher education policies, institutional practices, and stakeholder experiences across Europe. *A mixed-methods approach* (Creswell & Creswell, 2023; Creswell & Clark, 2018; Johnson & Onwuegbuzie, 2004; Greene et al., 1989) provides

the necessary methodological flexibility and empirical comprehensiveness required to capture the complexity and multidimensionality of transnational higher education transformations.

The rationale for employing mixed methods stems from the inherent complexities surrounding these phenomena, encompassing diverse and often ambiguous policy landscapes, institutional contexts, and varied stakeholder perceptions. Qualitative methods, specifically *comparative policy analysis* (Vögtle, 2014; Ball et al., 2012; Marginson & Rhoades, 2002), detailed *institutional case studies* (Yin, 2018; Kezar & Eckel, 2002; Stake, 1995), and rigorous *document and content analysis* (Krippendorff, 2018; Bowen, 2009), serve as the foundational methodological tools.

*Comparative policy analysis*, as employed in Studies II, III, IV, VI, and VII, is instrumental in critically exploring differences and similarities in policy formulation, interpretation, and implementation across multiple European contexts. *Institutional case studies* (Studies III, IV, and VIII), underpinned by Yin's (2018) structured approach and Stake's (1995) reflective methodology, facilitate an in-depth examination of how universities translate macro-level policy frameworks into concrete curricular innovations and organisational changes. *Document and content analysis* methods (Krippendorff, 2018; Bowen, 2009), systematically used in Studies I, II, III, VI, VII, and VIII, ensure methodological rigour in extracting and interpreting qualitative data from policy documents, institutional reports, and strategic frameworks.

Quantitative methods complement the qualitative dimension, strengthening the empirical foundation and enhancing analytical validity through structured surveys and rigorous statistical analyses (The jamovi project, 2024; Hair et al., 2019). Quantitative data collection and analyses are particularly evident in Studies V, VI, VII, and IX, systematically capturing stakeholder perceptions and providing empirical validation of stakeholder engagement, competencies developed, and perceived outcomes associated with micro-credentials, EDs, and embedded mobility. *Multivariate analytical techniques*, including structural equation modelling and factor analyses (The jamovi project, 2024; Hair et al., 2019), contribute essential empirical depth and robust methodological validation, allowing for meaningful triangulation with qualitative insights, along with additional thematical analysis of qualitative feedback (Braun & Clarke, 2006).

To comprehensively address the layered and interconnected dimensions inherent in the research, the thesis explicitly applies a multi-level analytical framework, incorporating *macro* (policy and governance frameworks), *meso* (institutional strategies and practices), and *micro* (stakeholder perceptions and experiences) levels (Marginson & Rhoades, 2002). This

structured multi-level approach, supported by *regulatory and governance literature* (Enders et al., 2013), provides the conceptual clarity and analytical coherence necessary for exploring complex educational transformations.

The research also explicitly incorporates *a comparative methodological orientation*, systematically contrasting findings across different European contexts and institutional cases (Studies IV, VI, VII, and VIII). The comparative approach illuminates context-specific enablers, barriers, and varied institutional strategies, significantly enhancing the depth, relevance, and practical applicability of findings.

Recognising the doctoral candidate's active involvement and insider positionality within European higher education policy initiatives and institutional implementation processes (Studies II, III, IV, VI, and VII), *reflexivity* is methodologically embedded into the research design (Berger, 2013). Reflexive methodological practices enhance transparency, strengthen ethical responsibility, and systematically address potential biases inherent in qualitative and policy-focused research.

To conclude, by explicitly integrating *a mixed-methods design* (Creswell & Creswell, 2023; Creswell & Clark, 2018; Johnson & Onwuegbuzie, 2004; Greene et al., 1989), *comparative policy analysis* (Vögtle, 2014; Ball et al., 2012; Marginson & Rhoades, 2002), *case study research* (Yin, 2018; Kezar & Eckel, 2002; Stake, 1995), *document analysis* (Krippendorff, 2018; Bowen, 2009), *quantitative statistical analysis* (The jamovi project, 2024; Hair et al., 2019; Braun & Clarke, 2006), and *reflexive positionality* (Berger, 2013), this thesis offers a robust, multidimensional methodological framework specifically tailored to examine the complexities of European higher education transformations.

### ***1.5.2. Data sources and analytical strategies***

This subsection details the comprehensive empirical foundations and rigorous analytical approaches that underpin the thesis. Specifically, it first outlines the diverse primary and secondary data sources systematically integrated to explore how micro-credentials, EDs, and embedded mobility are reshaping European higher education across policy, institutional, and stakeholder dimensions. Subsequently, the section describes the analytical strategies employed to ensure methodological coherence and robust empirical analysis, incorporating comparative policy analysis, institutional case studies, quantitative and qualitative methods, systematic triangulation, and methodological reflexivity. Together, these data sources and analytical strategies provide the necessary depth, rigour, and nuance

required to meaningfully examine the complex dynamics characterising contemporary transformations in European higher education.

**Data sources.** To ensure empirical richness and analytical depth, the thesis systematically integrates a diverse array of *primary and secondary data sources*. These sources collectively enable a nuanced exploration of how micro-credentials, EDs, and embedded mobility reshape European higher education across policy, institutional, and stakeholder dimensions.

**Primary data sources** provide the essential empirical foundation for the research. At the policy level, the thesis extensively analyses European and international policy documents, strategic frameworks, ministerial communiqués, and regulatory guidelines issued by authoritative bodies, including the European Commission (EC), the EHEA, the Organisation for Economic Co-operation and Development (OECD), and the United Nations Educational, Scientific and Cultural Organization (UNESCO). These documents offer critical insights into the development, coherence, and impacts of policy narratives and governance structures. Complemented by selected national level legislative and regulatory documents, these sources enable a comparative analysis of the diverse policy landscapes shaping higher education innovations, as reflected particularly in Studies II, III, IV, VI, and VII.

At the institutional level, the thesis draws on a comprehensive selection of internal documentation and institutional reports gathered from European HEIs and alliances, notably those involved in the European Universities Initiative (EUI). Institutional strategic plans, curriculum guidelines, QA and accreditation documents, as well as detailed programme reports from Erasmus+ funded projects, including *SMARTT* and *NewFAV*, serve as essential sources (Studies III, IV, VI, VII, and VIII). These institutional data provide valuable insights into how universities and alliances interpret and operationalise macro-level policy discourse into practical learning innovations and organisational strategies, highlighting both enabling factors and implementation challenges.

Quantitative empirical evidence derived from structured stakeholder surveys significantly complements these qualitative institutional and policy level sources. Original survey data, systematically collected and analysed in Studies IV, V, VI, VII, and IX, provide robust insights into stakeholder perspectives, capturing the perceptions, motivations, and experiences of students and staff regarding micro-credentials, EDs, and embedded mobility. These quantitative data sets facilitate an evidence-based validation of qualitative findings, ensuring methodological rigour and analytical comprehensiveness.

Additionally, qualitative feedback obtained through open-ended survey questions, institutional workshops, and stakeholder interviews conducted during the empirical phases of the thesis (notably Studies IV, V, VI, VII, and IX) offer narrative depth and nuanced insights. This qualitative stakeholder data enriches the understanding of individual experiences, perceived benefits, challenges, and motivations, providing essential narrative complements to quantitative analyses.

**Secondary data sources** further strengthen the empirical and analytical robustness of the thesis. Peer-reviewed academic literature, scholarly reports, and comprehensive analyses from recognised international organisations offer established theoretical perspectives, conceptual frameworks, and comparative insights into higher education transformation, curriculum innovation, and transnational education practices. Moreover, documentation and strategic recommendations produced within prominent European level initiatives and Erasmus+ projects provide contextual and comparative benchmarks, essential for grounding the thesis's findings within broader European educational discourses.

Collectively, the strategic integration of these diverse data sources ensures a robust empirical foundation and rich analytical exploration, effectively capturing the complexities and transformative dynamics associated with micro-credentials, EDs, and embedded mobility within contemporary European higher education.

**Analytical strategies.** Aligned with the robust empirical foundation detailed in the preceding section, the thesis systematically employs a combination of analytical strategies designed to explore the complexities inherent in higher education transformations involving micro-credentials, EDs, and embedded mobility. These analytical strategies reflect the thesis's *mixed-methods approach* and are carefully integrated to ensure methodological coherence, comprehensive empirical analysis, and meaningful triangulation of findings.

Firstly, the thesis applies *comparative policy analysis* to examine European, international, and national policy frameworks and strategic documents (Studies II, III, IV, VI, and VII). Drawing on *qualitative content analysis methods* (Krippendorff, 2018; Bowen, 2009), this approach identifies and compares underlying policy rationales, conceptual definitions, regulatory alignments, and implementation coherence across multiple contexts. Comparative policy analysis facilitates the identification of converging and diverging policy discourses and governance models, providing nuanced insights into how European level visions interact with national level regulatory environments to influence institutional practices.

*Institutional case study analysis* forms another essential analytical component of the thesis (Studies III, IV, VI, VII, and VIII). Using structured *case study methodologies* (Yin, 2018; Stake, 1995), the thesis explores how HEIs and alliances interpret, adapt, and operationalise macro-level policies within their specific institutional contexts. This analytical strategy provides in-depth understanding of the organisational factors, strategic decisions, enabling conditions, and persistent barriers encountered during the practical implementation of micro-credentials, EDs, and embedded mobility initiatives. It allows for rich contextual exploration of institutional transformations, directly linking policy level intentions with meso-level organisational realities and practices.

To complement these qualitative analytical techniques, quantitative statistical analyses are employed extensively to systematically explore stakeholder perceptions and experiences (Studies V, VI, VII, and IX). Structured surveys capturing students' and staff's perceptions, motivations, competences, and perceived outcomes are analysed using statistical methods, including exploratory factor analysis and structural equation modelling, through specialised statistical software (The jamovi project, 2024; Hair et al., 2019). These quantitative analyses provide empirical validation of qualitative insights, enabling the thesis to statistically substantiate findings related to stakeholder acceptance, engagement, and experiences with transformative higher education initiatives.

*Qualitative thematic analysis* further enhances the analytical depth, applied specifically to narrative qualitative data derived from open-ended survey responses, stakeholder interviews, and institutional workshop feedback (Studies IV, V, VI, VII, and IX). Following Braun and Clarke's (2006) *thematic analysis framework*, this strategy identifies, analyses, and reports patterns and narratives emerging from qualitative data, enriching the understanding of individual and collective experiences, perceptions, and challenges encountered in practice. Thematic analysis complements and deepens quantitative insights, ensuring that stakeholders' voices and experiences remain central within the analytical interpretation.

Throughout the analytical process, systematic triangulation is explicitly employed to integrate qualitative and quantitative findings coherently (Creswell & Creswell, 2023; Creswell & Clark, 2018; Greene et al., 1989). This integrative strategy ensures analytical validation, cross-verifying empirical findings across different data types, sources, and methodological approaches. Triangulation strengthens the thesis's analytical rigour, enhancing confidence in research conclusions, recommendations, and practical implications derived from comprehensive analyses.



Finally, *methodological reflexivity* underpins the entire analytical process, explicitly acknowledging the doctoral candidate's positionality within European policy initiatives and institutional implementation contexts (Studies II, III, IV, VI, and VII; Berger, 2013). Reflexivity ensures critical self-awareness, transparency, and ethical responsibility throughout data interpretation and reporting, mitigating potential biases inherent in qualitative and policy-focused analyses.

## **1.6. Limits and positionality**

This section reflects upon the research's boundaries and acknowledges inherent theoretical, empirical, and methodological limitations, as well as the doctoral candidate's positionality within the research process. Given the strong *policy-oriented nature of the thesis* and the candidate's active involvement in European higher education policymaking and institutional practice during the doctoral programme, it is imperative to transparently examine how these elements have influenced methodological choices, analytical interpretations, and ultimately, research outcomes. Articulating these considerations reinforces the thesis's methodological rigour, ethical transparency, and overall credibility, setting a foundation for critical scholarly engagement and ongoing empirical exploration of micro-credentials, EDs, and embedded mobility.

### ***1.6.1. Scope and limitations of the thesis***

The thesis focuses specifically on the European higher education context, exploring policy frameworks, institutional practices, and stakeholder engagements that shape the adoption of micro-credentials, EDs, and embedded mobility within the EHEA. Although this clearly defined scope enables focused and coherent analysis, several limitations should be transparently acknowledged.

Firstly, the research predominantly engages with *European contexts, frameworks, and policies* and does not extensively investigate non-European higher education landscapes. Although comparative insights from regions such as Latin America, Asia, and North America are occasionally included to illustrate European distinctiveness or potential for global transferability, these references remain primarily illustrative and limited. Consequently, the thesis does not provide comprehensive global comparative analyses. Further comparative studies could significantly enrich the understanding of how European educational innovations might adapt or transfer effectively to diverse international contexts.

Secondly, adopting the *Doctor Europaeus* pathway significantly reinforces the thesis's strong transnational European dimension and alignment with EU policy frameworks and institutional developments. However, this strategic perspective limits exploration of *alternative global educational paradigms, recognition frameworks, and governance models beyond Europe*. Insights related to non-European educational innovations remain peripheral, underscoring the need for continued scholarly engagement with global educational practices and policy solutions.

Thirdly, the relatively recent emergence and implementation of the investigated phenomena *limit the availability of robust longitudinal data*. Despite extensive use of policy documents, institutional case studies, and stakeholder surveys, these sources typically reflect short-term outcomes, recent pilot initiatives, or ongoing developments rather than sustained institutional transformations or long-term stakeholder perceptions. Consequently, the thesis cannot conclusively evaluate long-term impacts or enduring effectiveness, highlighting the necessity for future longitudinal research to better understand scalability and sustainability.

Fourthly, the thesis *intentionally prioritises qualitative insights, interpretative policy analyses, and stakeholder perspectives* over comprehensive quantitative impact analysis. This methodological choice, essential for exploring nuanced interpretative contexts, can limit definitive quantification of outcomes or broad generalisability. Future research should more robustly measure and validate impacts of these educational transformations across diverse learner populations and institutional contexts.

Beyond these theoretical and conceptual limitations, several empirical and methodological boundaries derived explicitly from the original studies (Studies I-IX) should be recognised:

- *Institutional representativeness and diversity*. Empirical analyses, particularly evident in Studies II, IV, VI, and VII, largely involve prominent HEIs located predominantly in urban or capital-city areas. Smaller, rural, or less research-intensive institutions may be underrepresented, limiting the generalisability of findings across the diverse spectrum of European higher education.
- *Stakeholder sampling bias*. Stakeholder surveys and quantitative studies (Studies II, V, VII, IX) may predominantly include academics, administrators, and students already positively engaged in or supportive of innovative educational practices. Consequently, critical or resistant viewpoints may be

underrepresented, potentially skewing findings towards more favourable perceptions of micro-credentials, embedded mobility, and the ED.

- *Operational and financial constraints.* Financial sustainability and resource allocation emerged as substantial empirical challenges, particularly highlighted in Study IX. However, the thesis did not extensively analyse institutional cost-efficiency or resource implications, limiting insights into practical financial viability and scalability.
- *Pilot nature of initiatives.* Many examined initiatives (e.g., Studies II, IV, VI, VII, and VIII) reflect pilot or short-term experiments rather than fully integrated, long-term programmes. While valuable for initial insights, the experimental nature restricts conclusions regarding enduring scalability, effectiveness, and applicability across broader educational contexts.
- *Conceptual ambiguity and terminological variability.* Despite significant contributions in Studies I and II, persistent conceptual ambiguities surrounding the definition and operationalisation of micro-credentials complicate comparability, generalisability, and operational clarity. This limitation emphasises the need for ongoing conceptual refinement and terminological consistency in future research.
- *Methodological boundaries in data integration.* Although employing a mixed-methods approach, certain studies (notably Studies III and VII) rely heavily on qualitative data, limiting systematic integration of quantitative measures. This methodological boundary restricts precise quantification of stakeholder perceptions, student outcomes, and institutional effectiveness.
- *Implementation gaps and institutional autonomy.* Institutional autonomy, explored in Studies IV, VI, and VII, results in significant variability and non-standardised practices. While insightful for understanding institutional flexibility, this variability constitutes a limitation, complicating clear identification of universal patterns or broadly applicable strategies for implementing innovations across the EHEA.
- *Limited number of case studies for piloting programme design tools.* The programme design grid developed in Study III was piloted on a relatively small number of case studies in Study IV. This limitation restricts empirical validation and generalisability of the proposed framework and tools,

potentially overlooking broader implementation challenges and opportunities. Additional diverse case studies are recommended to enhance the robustness and applicability.

- *Regional concentration of student samples.* Student-focused studies (particularly Study V and IX) predominantly include Romanian cohorts, as study V exclusively engaged participants from a single Romanian HEI and Study IX featured a significant majority studying in Romanian institutions. This regional concentration limits the geographical representativeness and generalisability of findings, potentially overlooking broader European variations in student perceptions, experiences, and acceptance. Future research should incorporate geographically diverse student populations to ensure broader applicability.

These transparently articulated theoretical and empirical limitations do not diminish the thesis's analytical significance or empirical contributions. Instead, they explicitly delineate the research boundaries, ensuring methodological transparency and highlighting directions for future research. Such clarity encourages continued scholarly inquiry, inviting future studies to address identified gaps, deepen insights, and fully explore implications of transforming higher education through micro-credentials, EDs, and embedded mobility.

### ***1.6.2. Researcher positionality and reflexivity***

Explicit reflection on researcher positionality is essential for ensuring methodological rigour and ethical transparency, particularly in educational research deeply interconnected with policy-making and institutional practice (Berger, 2013). Throughout this doctoral thesis, the candidate's dual roles – as an early-career researcher and active professional engaged in European higher education policy and practice – have substantially influenced various aspects of the study, including the formulation of research questions, selection of theoretical frameworks, and analytical interpretations.

The doctoral candidate's professional role provided unique and privileged access to policy dialogues and institutional developments related to micro-credentials, EDs, and embedded mobility. Holding educational coordination and strategic positions within the CIVIS European University Alliance and actively contributing to numerous European and international policy groups – including the EC, FOREU4ALL, UNICA EduLAB, and INQAAHE – afforded direct experience of how educational innovations transitioned from theoretical policy concepts into tangible institutional realities. For example, the candidate

played a direct role, together with the doctoral supervisor, in drafting an initial criteria proposal for the EDL prior to the official criteria released by the EC. Although the specific criteria proposed were not fully retained, the fundamental concept of clustering criteria into categories notably influenced the EC's subsequent approach. Such experiences significantly informed the candidate's framing of research questions, prompting a shift from an initially theoretical orientation toward more practical, implementation-oriented considerations.

Additionally, the candidate's extensive international mobility – including structured research periods at institutions such as *King's College London* and *Universidad Autónoma de Madrid* – and active participation in international workshops and training (notably on digitally enhanced mobility, QA frameworks for joint programmes, and micro-credentials) substantially influenced the candidate's analytical lens. These international experiences notably guided the design of research instruments, such as the programme design grid, surveys, and interview protocols, grounding them firmly in practical applicability and institutional relevance.

Nonetheless, these insider roles inevitably introduced methodological challenges and potential biases that required careful reflexivity. Specific instances emerged where the candidate's professional knowledge directly challenged analytical objectivity. For example, during the analysis conducted in Studies II, III, and IV, differences arose between respondents' perceptions and the candidate's direct insights into institutional realities, necessitating deliberate reconsideration and analytical adjustment. Particularly during Study VIII, which involved qualitative analyses of micro-credential practices within European alliances, the candidate encountered tensions between publicly marketed institutional narratives and the operational realities familiar to him through professional involvement. Navigating this tension demanded conscious analytical reflexivity and explicit acknowledgment of potential biases arising from this insider perspective.

To mitigate these potential biases, the doctoral candidate adopted several methodological strategies to ensure analytical rigour. These included systematic reflexive journaling, comprehensive notetaking during policy meetings and stakeholder engagements, and consistent analytical triangulation across diverse empirical sources. Additionally, regular external reviews by academic peers, conference reviewers, and the doctoral supervisor provided essential critical feedback, continuously challenging and refining analytical perspectives and interpretations. Such external feedback was crucial for enhancing the balanced and credible analytical conclusions of the research.

Throughout the research process, ethical transparency regarding the candidate's dual roles was maintained consistently. All stakeholders and research participants were explicitly informed about the candidate's professional responsibilities and potential interpretative lenses, ensuring clarity concerning positional influences on data analysis and interpretation.

Reflecting candidly on the evolution of the candidate's understanding throughout the research journey, substantial transformations occurred in conceptual perspectives. Initially, the candidate conceptualised micro-credentials primarily as certification mechanisms, EDs predominantly as structural entities, and embedded mobility mainly in terms of institutional support services. Continuous engagement with empirical data, extensive reflexivity, and critical engagement with evolving European policy contexts substantially reshaped these initial assumptions. The candidate's current understanding positions micro-credentials fundamentally as dynamic learning arrangements and transformative educational experiences; EDs as deeply embedded within institutional identities, shared European values, educational quality, and transnational branding; and embedded mobility as essentially about quality, recognition, portability, and broader student learning experiences.

Ultimately, explicitly articulating these positional reflections substantially enhances the transparency, ethical clarity, and methodological rigour of this doctoral thesis. By openly acknowledging both the advantages and methodological complexities inherent in the candidate's dual researcher-professional positionality, the thesis lays a robust foundation for ongoing reflexive scholarship, critical inquiry, and empirical exploration of the evolving landscape of micro-credentials, EDs, and embedded mobility.

### **1.7. Structure of the thesis**

This section outlines the overall structure of the thesis, presenting how each chapter systematically addresses the established research objectives and the guiding policy reflection milestones. Organised into *six interlinked chapters*, the thesis progressively develops an integrated narrative, synthesising theoretical insights, empirical evidence, policy analyses, and institutional practices related to micro-credentials, EDs, and embedded mobility within European higher education contexts.

Although originally developed through separate publications, policy reflections, reports, as original studies (Studies I-IX), extensive efforts have ensured thematic coherence and structural integration. Strategic cross-chapter referencing, explicit analytical alignment, and bridging statements help maintain a cohesive, homogeneous narrative that consistently reinforces a strategic European policy perspective.

**Chapter 1 (Introduction)** sets the *foundational context and rationale for the thesis*. It delineates the research landscape, highlighting major shifts and contemporary policy-driven innovations in European higher education. This chapter explicitly defines the central research problem, articulates the core research objectives and associated policy reflection milestones, and presents the comprehensive mixed-methods approach employed. It further acknowledges and critically reflects upon the researcher's positionality and the limitations inherent to the study, ensuring methodological transparency. Thus, Chapter 1 systematically introduces the *macro* (policy and governance), *meso* (institutional practices), and *micro* (stakeholder engagement) analytical dimensions that structure the thesis.

**Chapter 2 (Theoretical and conceptual framework)** builds a robust *theoretical foundation* essential for critically analysing higher education transformations. It draws extensively from LLL theory, human capital theory, modular learning approaches, CBE frameworks, transnational education theory, network governance theory, and innovation diffusion models. This chapter positions micro-credentials, EDs, and embedded mobility as interdependent educational innovations within a structured analytical model – the *inverted pyramid* (see **Figure 1**)– which visually illustrates the hierarchical and interdependent relationship among macro-level policy frameworks, meso-level institutional strategies, and micro-level stakeholder engagement. Hence, Chapter 2 directly addresses the research objectives related to policy coherence, institutional curriculum transformation, and the alignment of educational practices with labour market demands.

**Chapter 3 (Policy landscape analysis)** focuses explicitly on the *macro-level policy dimension*. It draws significantly on empirical evidence from Studies II, III, VI, and VII and further develops them to critically assess European and national-level policy frameworks shaping the development and integration of micro-credentials, EDs, and embedded mobility within the EHEA. Key analyses include exploration of regulatory coherence, policy drivers, governance models, accreditation mechanisms, and QA frameworks. Additionally, the chapter examines how European University Alliances actively implement policy innovations. By doing so, Chapter 3 addresses the thesis's policy reflection milestones concerning governance coherence, recognition of credentials, accreditation processes, and transnational policy integration.

**Chapter 4 (Empirical evidence and institutional case studies)** integrates *empirical evidence from Studies I through IX*, systematically addressing especially the *meso-level institutional implementation dimension* and the *micro-level stakeholder engagement dimension*. Institutional case studies comprehensively illustrate practical implementation

strategies for micro-credentials, EDs, and embedded mobility, highlighting successful practices, barriers encountered, and critical lessons learned. Concurrently, through quantitative surveys and qualitative feedback, the chapter explores stakeholder perceptions, motivations, acceptance, and engagement, aligning directly with research objectives addressing curriculum flexibility, stakeholder perspectives, pedagogical innovation, and institutional strategies.

**Chapter 5 (Discussion and synthesis of findings)** synthesises the theoretical frameworks, empirical findings, institutional case studies, and stakeholder analyses previously presented, to critically *discuss overarching themes, opportunities, challenges, and strategic implications*. Drawing explicitly on insights derived from Studies I-IX and the theoretical and policy analyses of the thesis, this chapter addresses all defined research objectives and systematically integrates macro-, meso-, and micro-level analytical findings. Based on this integrated synthesis, Chapter 5 provides concrete and actionable policy recommendations targeted explicitly at European and national policymakers, addressing critical areas such as curricular flexibilisation, accreditation practices, recognition frameworks, digitalisation strategies, and transnational cooperation. Practical guidelines for HEIs are also clearly articulated. Additionally, this chapter identifies specific, concrete directions for future research, highlighting gaps and opportunities warranting further empirical exploration, thus directly addressing policy reflection milestones related to sustainability, strategic development, and future readiness.

**Chapter 6 (Conclusions)** succinctly summarises the main findings and explicitly revisits and critically reflects upon the initially defined research objectives and policy milestones. This concluding chapter highlights the theoretical, empirical, and practical contributions of the thesis, clearly outlining how this research advances academic knowledge, informs strategic policymaking, and enhances institutional practice. Moreover, it reflects broadly upon the implications of the thesis's findings for European higher education governance, institutional innovation, and stakeholder engagement, reinforcing the significance of the doctoral research for the strategic advancement of flexible, innovative, and transnational educational paradigms.

Collectively, these six chapters deliver an integrated, systematic, and coherent analysis, significantly advancing the scholarly discourse, practical relevance, and strategic understanding regarding the transformative educational phenomena of micro-credentials, EDs, and embedded mobility within the broader European higher education context.



## 6. CONCLUSIONS

The thesis has systematically investigated the ways in which micro-credentials, EDs, and embedded mobility collectively shape higher education policy, institutional practices, and stakeholder engagement within the EHEA. Drawing on empirical evidence collected from multiple European institutions and diverse policy contexts, the research provided a clear and cohesive answer to the central research question: *what drives transformations in higher education learning?* The transformative phenomena examined significantly enhance the flexibility, responsiveness, and international orientation of European higher education; however, their effectiveness and long-term sustainability rely fundamentally upon coherent policy frameworks, institutional adaptability, and meaningful stakeholder acceptance.

The thesis was structured around four interrelated objectives: analysing *policy coherence*, exploring *institutional implementation strategies*, assessing *stakeholder perceptions*, and evaluating the *role of digitalisation in educational transformation*. Empirical findings consistently indicated that the current European policy landscape provides vital foundational support for transformation through initiatives such as the EDL, the European Approach to Micro-Credentials, and embedded mobility schemes, notably through BIPs. Nevertheless, persistent regulatory fragmentation, inconsistent recognition practices across national and institutional contexts, and varying levels of institutional readiness have revealed critical barriers that limit wider adoption and enduring sustainability of these educational innovations.

Through institutional case studies, the research highlighted that successfully embedding micro-credentials, EDs, and embedded mobility requires more than compliance with external policy mandates. Effective institutional implementation demands strategic alignment of autonomy with European policy objectives, cultivation of an internal culture supportive of innovation, and establishment of transparent governance structures that facilitate inclusive stakeholder engagement. Indeed, curricular innovations were demonstrated to be most impactful and enduring where institutions fully integrated flexible educational formats within clearly defined institutional frameworks, supported by consistent accreditation and QA mechanisms.

Stakeholder and community analyses further emphasised that meaningful transformation in higher education depends critically upon active recognition, acceptance, and involvement from students, academic staff, employers, and credential evaluators. Although micro-credentials and embedded mobility received positive feedback for increasing educational flexibility and enhancing employability, significant concerns persist regarding

their credibility, transnational recognition, and seamless integration into established educational pathways. Similarly, despite widespread enthusiasm for the ED initiative, practical barriers related to quality assurance and cross-national accreditation processes remain formidable. This situation underscores the critical importance of ongoing dialogue, trust-building measures, and transparent communication with all stakeholders involved.

Reflecting critically on the research process, the thesis benefited significantly from adopting a rigorous mixed-methods design, systematically combining qualitative policy analysis, detailed institutional case studies, and quantitative data derived from stakeholder surveys. This methodological approach provided nuanced analytical insights, supported by data triangulation, enhancing the validity and reliability of the findings. Nonetheless, inherent limitations, including regional representational biases, limited availability of longitudinal data, and reliance on pilot-based initiatives, have been explicitly acknowledged. These limitations set a clear and valuable agenda for subsequent scholarly inquiries, highlighting areas requiring further empirical investigation and methodological refinement.

### **6.1. Contributions to the field**

This doctoral thesis makes significant theoretical, empirical, and practical contributions to educational sciences and European higher education policy discourse.

*Theoretically*, the research advances scholarly understanding of higher education transformation by introducing a clearly articulated conceptual model, represented visually as *an inverted pyramid* (see **Figure 1**). This model captures the hierarchical yet interdependent relationships among policy frameworks, institutional implementation strategies, and stakeholder engagement. Further on, the thesis operationalised the conceptual model and proposed the *FIE model* (see **Figure 7**) meant to support policymakers, HEIs, and practitioners to analyse and apply higher education transformations. By emphasising the critical role of stakeholder recognition and participation, the model provides a structured analytical framework that can guide future research and inform strategic decision-making.

*Empirically*, the thesis offers a rich set of original case studies and comprehensive quantitative analyses conducted across diverse European contexts. These empirical findings deliver robust insights into institutional implementation practices, stakeholder perceptions, and acceptance dynamics associated with micro-credentials, EDs, and embedded mobility. Particularly valuable is the empirical validation provided for flexible learning pathways and the nuanced examination of stakeholder engagement, contributing essential data to ongoing policy debates and curricular innovations.

*Practically*, this research directly informs higher education policy, institutional practice, and transnational collaboration. By providing explicit strategic recommendations, actionable guidelines, and evaluative frameworks, the thesis supports policymakers, institutional leaders, and educators engaged in curriculum innovation and educational reform. Specifically, it addresses critical aspects such as curricular flexibilisation, digital credential recognition, institutional governance structures, and transnational QA practices, thus guiding meaningful and sustainable implementation strategies.

Moreover, by explicitly embedding the *Doctor Europaeus* philosophy, the research significantly reinforces the European dimension of higher education studies. This commitment to transnational scholarly dialogue enhances the visibility and relevance of European educational models, contributing substantively to the ongoing discourse on academic mobility, curriculum innovation, and policy coherence within and beyond the EHEA.

## 6.2. Recommendations for future research

Building on the findings, limitations, and insights identified throughout the thesis, several critical avenues for further empirical and theoretical exploration emerge as essential for advancing the understanding and sustainable implementation of micro-credentials, EDs, and embedded mobility.

Firstly, there is *a clear need for longitudinal research* that examines the longer-term impacts, scalability, and effectiveness of these educational innovations. Future studies should systematically investigate how initial pilot programmes evolve into fully integrated, sustainable institutional practices, thus providing robust evidence regarding the durability and broader applicability of micro-credentials, EDs, and embedded mobility frameworks over time.

Secondly, *comparative research extending beyond European contexts* would significantly enrich the global understanding of these phenomena. By exploring how European higher education innovations are adapted, implemented, and recognised within diverse international education systems – such as those in Latin America, Asia, or North America – future studies can provide valuable insights into the global transferability, adaptability, and cultural contextualisation of European educational policies and practices.

Thirdly, future research should explicitly *address financial sustainability and resource allocation* associated with implementing these flexible educational arrangements. Investigating cost-effectiveness, resource optimisation, and sustainable financial models will

help institutions better understand practical constraints and opportunities, thereby facilitating broader institutional adoption and long-term viability.

Fourthly, further research into the *role and potential of digital technologies in credential recognition, interoperability, and learner data management* is crucial. Systematic exploration of digital credentialing infrastructures, blockchain technologies, and interoperability frameworks will be particularly valuable for enhancing transparency, trust, portability, and efficiency within transnational education collaborations and credentialing ecosystems.

Finally, in-depth studies focusing explicitly on *stakeholder and community acceptance, resistance, and perceptions* are necessary. These studies should address specific concerns around recognition, QA, employability outcomes, and inclusion. Comprehensive stakeholder analyses can inform targeted communication strategies, policy adjustments, and institutional practices that foster broader trust and acceptance among diverse stakeholder groups, thus supporting the sustainable implementation of transformative educational models within and beyond the EHEA.

### 6.3. Final reflections

This doctoral research has demonstrated that the transformation of European higher education towards modular, flexible, and internationally embedded curricula signifies not merely administrative adjustment but a profound re-envisioning of educational practice and purpose. While numerous structural and regulatory challenges remain, the research outcomes clearly reveal significant opportunities for higher education institutions to align their offerings strategically with contemporary societal needs, labour market dynamics, and lifelong learning imperatives.

Crucially, the thesis underscores the necessity of coherent policy frameworks, institutional agility, and active stakeholder involvement to effectively embed innovations such as micro-credentials, EDs, and embedded mobility within the broader educational ecosystem. As HEIs increasingly navigate global complexities and respond to shifting learner expectations, strategic engagement with these transformative innovations can substantially enhance institutional responsiveness, academic quality, and learner empowerment.

Finally, the thesis advocates strongly for sustained dialogue, reflexive institutional leadership, and continued scholarly inquiry. Only through committed collaboration among policymakers, universities, and stakeholders can higher education sustainably address emerging societal demands, remain globally relevant, and embody the core European values

of inclusivity, quality, and transnational cooperation. By embracing these transformative educational paradigms proactively, European higher education can confidently secure its position as an innovative, equitable, and academically rigorous space for learners and communities across Europe and beyond.

## REFERENCES

- Aerden, A. (2015). *Frameworks for the Assessment of Quality in Internationalisation*. European Consortium for Accreditation in Higher Education. [https://cequint.eu/uploads/2025/01/CeQuint-Frameworks-for-the-Assessment-of-Quality-in-Internationalisation\\_REVIEW-2024\\_final-1.pdf](https://cequint.eu/uploads/2025/01/CeQuint-Frameworks-for-the-Assessment-of-Quality-in-Internationalisation_REVIEW-2024_final-1.pdf)
- Ahsan, K., Akbar, S., Kam, B., Abdulrahman, M. D.-A. (2023). Implementation of micro-credentials in higher education: A systematic literature review. *Education and Information Technologies*, 28, 13505-13540. <https://doi.org/10.1007/s10639-023-11739-z>
- Alves, H., Terzieva, V., di Marzo, P., & Gonzalez, J. R. (2022). *Erasmus Goes Green: Policy Recommendations*. European University Foundation. [https://uni-foundation.eu/uploads/2022\\_EGG\\_Policy%20Recommendations\\_October%202022.pdf](https://uni-foundation.eu/uploads/2022_EGG_Policy%20Recommendations_October%202022.pdf)
- Amaral, A., & Neave, G. (2009). On Bologna, Weasels and Creeping Competence. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 281-299). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_12](https://doi.org/10.1007/978-1-4020-9505-4_12)
- ANECA. (2022a). *Microcredenciales. Formación inclusiva en todos los formatos y para todas las edades [Micro-credentials: Inclusive learning in every format for learners of all ages]*. ANECA. [https://www.aneca.es/documents/20123/49576/MICROCREDENCIALES\\_Informe\\_V3.pdf/db424827-b464-d41d-ae09-717eb95e5742?t=1660907214565](https://www.aneca.es/documents/20123/49576/MICROCREDENCIALES_Informe_V3.pdf/db424827-b464-d41d-ae09-717eb95e5742?t=1660907214565)
- ANECA. (2022b). *Estudio sobre el aseguramiento de la calidad en las Alianzas de Universidades Europeas, los Títulos Europeos y las Microcredenciales en el Sistema Universitario Español [Study on Quality Assurance in European University Alliances, European Degrees, and Micro-credentials within the Spanish University System]*. ANECA. [https://www.aneca.es/documents/20123/81862/Estudio-ATM\\_NIPO.pdf/a55dab5c-5a5c-9a8c-245e-e471dfe1e324?t=1672840598579](https://www.aneca.es/documents/20123/81862/Estudio-ATM_NIPO.pdf/a55dab5c-5a5c-9a8c-245e-e471dfe1e324?t=1672840598579)
- Argyris, C., & Schon, D. A. (1978). *Organizational Learning: A Theory of Action Perspective*. Addison-Wesley Publishing Company.
- Ball, S. J., & Junemann, C. (2012). *Networks, New Governance and Education*. The Policy Press.
- Ball, S. J., Maguire, M., & Braun, A. (2012). *How Schools do Policy. Policy enactments in secondary schools*. Routledge.

- Becker, G. S. (1993). *Human Capital. A Theoretical and Empirical Analysis with Special Reference to Education*. The University of Chicago Press.
- Beelen, J., & Jones, E. (2015). Redefining Internationalization at Home. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European Higher Education Area: Between Critical Reflections and Future Policies* (pp. 59-72). Springer. [https://doi.org/10.1007/978-3-319-20877-0\\_5](https://doi.org/10.1007/978-3-319-20877-0_5)
- Bergan, S., & Matei, L. (2024). Tracking a Remarkable Intellectual and Policy Journey: Building a European Higher Education Area Furthering the Fundamental Values of Higher Education. In A. Curaj, C. M. Hâj, & R. Pricopie (Eds.), *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 405-429). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_22](https://doi.org/10.1007/978-3-031-75140-0_22)
- Bergan, S., & Matei, L. (2020). The Future of the Bologna Process and the European Higher Education Area: New Perspectives on a Recurring Topic. A. Curaj, L. Deca, & R. Pricopie (Eds.), *European Higher Education Area: Challenges for a New Decade* (pp. 361-373). Springer. [https://doi.org/10.1007/978-3-030-56316-5\\_23](https://doi.org/10.1007/978-3-030-56316-5_23)
- Berger, R. (2013). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219-234. <https://doi.org/10.1177/1468794112468475>
- Bezinger, B., Lardies, J. C., Lapuente, J., & Knoth, A. (2025). Creating seamless learner experiences: Towards achieving interoperability in European University Alliances. *EPiC Series in Computing*, 105, 221-231. <https://doi.org/10.29007/c4kt>
- Blass, E. (2012). Is Bologna Sustainable in the Future? Future Testing the Bologna Principles. In A. Curaj, P. Scott, L. Vlăsceanu, & L. Wilson (Eds.), *European Higher Education at the Crossroads: Between the Bologna Process and National Reforms* (pp. 1057-1072). Springer. [https://doi.org/10.1007/978-94-007-3937-6\\_53](https://doi.org/10.1007/978-94-007-3937-6_53)
- Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27-40. <https://doi.org/10.3316/QRJ0902027>
- Bracht, O., Engel, C., Janson, K., Over, A., Schomburg, H., & Teichler, U. (2006). *The Professional Value of ERASMUS Mobility*. International Centre for Higher Education Research (INCHER-Kassel), University of Kassel. <https://www.eurashe.eu/wp-content/uploads/2022/02/wg4-R-professional-value-of-erasmus-mobility-teichler-1-1.pdf>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

- Brooks, R., Courtois, A., Faas, D., Jayadeva, S., & Beech, S. (2024). International student mobility within Europe: responding to contemporary challenges. *Higher Education*, 88, 1663-1672. <https://doi.org/10.1007/s10734-024-01222-0>
- Brooks, J. S., & Normore, A. H. (2009). Educational Leadership and Globalization: Literacy for a Glocal Perspective. *Educational Policy*, 24(1), 52-82. <https://doi.org/10.1177/0895904809354070>
- Brower, A. M., & Specht-Boardman, R. J. (Eds.). (2022). *New Models of Higher Education: Unbundled, Rebundled, Customized, and DIY*. IGI Global.
- Brown, M., McGreal, R., & Peters, M. (2023). A Strategic Institutional Response to Micro-Credentials: Key Questions for Educational Leaders. *Journal of Interactive Media in Education*, 2023(1), 7. <https://doi.org/10.5334/jime.801>
- Cai, Y., & Leask, B. (2024). Rethinking internationalization of higher education for society from an outside-in perspective. *Journal of Asian Public Policy*, 1-19. <https://doi.org/10.1080/17516234.2024.2406093>
- Camilleri, A. F. (2021, January 28). How will micro-credentials change the Higher Education Landscape?. In ECIU, *Paving the Road for the Micro-Credentials Movement* [Video] (00:58:28-01:09:31). Vimeo. <https://vimeo.com/506046542>
- Camilleri, A. F. (2018). *Micro Credentials. A (not so) new way to recognize learning* [PowerPoint]. MicroHE Consortium. [https://www.slideshare.net/anthonymcamilleri/microcredentials-a-not-so-new-way-to-recogniselearning?from\\_action=save](https://www.slideshare.net/anthonymcamilleri/microcredentials-a-not-so-new-way-to-recogniselearning?from_action=save)
- Castells, M. (2009). *The Rise of the Network Society*. Wiley-Blackwell.
- Castells, M. (Ed.). (2004). *The Network Society: A Cross-cultural Perspective*. Edward Elgar.
- Castells, M., Flecha, R., Freire, P., Giroux, H. A., Macedo, D., & Willis, P. (1999). *Critical Education in the New Information Age*. Rowan & Littlefield Publishers.
- Cedefop. (2023a). *Microcredentials for labour market education and training: microcredentials and evolving qualifications systems*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2801/566352>
- Cedefop. (2023b). *Microcredentials for labour market education and training: the added value for end users*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2801/141643>
- Cedefop & Pouliou, A. (2024). *Exploring the emergence of microcredentials in vocational education and training (VET)*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2801/671358>



- Cirlan, E. (2023). *Approaches to Quality Assurance of Micro-credentials: A report on policies and practices to assure the quality of micro-credentials in the European Higher Education Area. I'MINQA Project*. European Association for Quality Assurance in Higher Education (ENQA). [https://www.enqa.eu/wp-content/uploads/IMINQA-MC-report\\_Approaches-to-Quality-Assurance-of-Micro-credentials.pdf](https://www.enqa.eu/wp-content/uploads/IMINQA-MC-report_Approaches-to-Quality-Assurance-of-Micro-credentials.pdf)
- Cirlan, E., & Loukkola, T. (2020). *European project MICROBOL. Micro-credentials linked to the Bologna Key Commitments: Desk research report*. European University Association (EUA). <https://www.eua.eu/downloads/publications/microbol%20desk%20research%20report.pdf>
- CIVIS. (2023). *Investment Pathway for European Universities Initiative: Position Paper by CIVIS, Europe's Civic University Alliance*. CIVIS. <https://doi.org/10.5281/zenodo.8386863>
- Claeys-Kulik, A.-L., & Jørgensen, T. E. (2024). *What if? Exploring possible futures of transnational cooperation for Europe's universities*. European University Association (EUA). <https://www.eua.eu/publications/reports/what-if.html>
- Council of the European Union. (2025a). *Council Resolution on a joint European degree label and the next steps towards a possible joint European degree: boosting Europe's competitiveness and the attractiveness of European higher education (C/2025/2939)*. Publications Office of the European Union. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C\\_202502939](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202502939)
- Council of the European Union. (2025b). *Council Recommendation of 12 May 2025 on a European quality assurance and recognition system in higher education (C/2025/3006)*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32025H03006>
- Council of the European Union. (2024). *Council Recommendation of 13 May 2024 'Europe on the Move' – learning mobility opportunities for everyone (C/2024/3364)*. Publications Office of the European Union. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C\\_202403364](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202403364)
- Council of the European Union. (2022). *Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (2022/C 243/02)*. Publications Office of the European Union. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627(02))

- Crăciun, D., Kaiser, F., Kottmann, A., Meulen, & van der Meulen, B. (2023). *Research for CULT Committee – The European Universities Initiative, first lessons, main challenges and perspectives*. European Parliament.  
[http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL\\_STU\(2023\)733105](http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2023)733105)
- Creswell, J. W., & Creswell, J. D. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research*. Sage Publications.
- Crowther, P., Joris, M., Otten, M., Nilsson, B., Teekens, H., & Wächter, B. (2000). *Internationalisation at Home: A Position Paper*. European Association for International Education (EAIE).
- Custers, B., & Magalhães, A. M. (2023). Problematising ‘education’ in the Modernisation Agenda for Higher Education: The onset of language(s) of education. *European Educational Research Journal*, 22(1), 58-76.  
<https://doi.org/10.1177/14749041211047334>
- de Wit, H. (2020). Internationalization of Higher Education: The Need for a More Ethical and Qualitative Approach. *Journal of International Students*, 10(1), i-iv.  
<https://doi.org/10.32674/jis.v10i1.1893>
- de Wit, H. (2018). The Bologna Process and the Wider World of Higher Education: The Cooperation Competition Paradox in a Period of Increased Nationalism. In A. Curaj, L. Deca, & R. Pricopie (Eds.), *European Higher Education Area: The Impact of Past and Future Policies* (pp. 15-22). Springer. [https://doi.org/10.1007/978-3-319-77407-7\\_2](https://doi.org/10.1007/978-3-319-77407-7_2)
- de Wit, H., & Altbach, P. G. (2020). Internationalization in higher education: global trends and recommendations for its future. *Policy Reviews in Higher Education*, 5(1), 28-46.  
<https://doi.org/10.1080/23322969.2020.1820898>
- de Wit, H., & Deca, L. (2020). Internationalization of Higher Education, Challenges and Opportunities for the Next Decade. In A. Curaj, L. Deca, & R. Pricopie (Eds.), *European Higher Education Area: Challenges for a New Decade* (pp. 3-11). Springer.  
[https://doi.org/10.1007/978-3-030-56316-5\\_1](https://doi.org/10.1007/978-3-030-56316-5_1)
- Deardorff, D. K., de Wit, H., Leask, B., & Charles, H. (Eds.). (2022). *The Handbook of International Higher Education*. Stylus Publishing.

- Debiais-Sainton, V., & Karamali, A. (2020). *Creating a coherent European space for research, innovation and education. Linking European Research Area and European Education Area* [PowerPoint]. European Commission.  
[https://wgseigp.amu.edu.pl/\\_data/assets/pdf\\_file/0012/140133/200911-sefs-wg-era-ehea-eea-com-synergies-dg-rtd-dg-eac.pdf](https://wgseigp.amu.edu.pl/_data/assets/pdf_file/0012/140133/200911-sefs-wg-era-ehea-eea-com-synergies-dg-rtd-dg-eac.pdf)
- Dörr, T., Ernst, J., Langenkämper, L., Scheuch, L., & Seibel, S. (2023). *Micro-Credentials at HEIs – Strategic Development and Quality Assurance. Results of the Micro-Credentials Expert Group*. German Rectors' Conference. [https://www.hrk-modus.de/media/redaktion/Downloads/Publikationen/MODUS/English/EN\\_Micro-Credentials\\_at\\_HEIs\\_web.pdf](https://www.hrk-modus.de/media/redaktion/Downloads/Publikationen/MODUS/English/EN_Micro-Credentials_at_HEIs_web.pdf)
- Draghi, M. (2024). *The future of European competitiveness. Part B: In-depth analysis and recommendations*. Publications Office of the European Union.  
[https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92\\_en?filename=The%20future%20of%20European%20competitiveness%20In-depth%20analysis%20and%20recommendations\\_0.pdf](https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness%20In-depth%20analysis%20and%20recommendations_0.pdf)
- EADTU, Henderikx, P., & Ubachs, G. (2019). *Innovative Models for Collaboration and Student Mobility in Europe: Results of EADTU's Task Force and Peer Learning Activity on Virtual Mobility*. European Association of Distance Teaching Universities (EADTU).  
[https://eadtu.eu/documents/Innovative\\_Models\\_for\\_Collaboration\\_and\\_Student\\_Mobility\\_in\\_Europe.pdf](https://eadtu.eu/documents/Innovative_Models_for_Collaboration_and_Student_Mobility_in_Europe.pdf)
- EHEA. (2024a). *Tirana Communiqué*. The European Higher Education Area (EHEA).  
<https://ehea.info/Download/Tirana-Communique.pdf>
- EHEA. (2024b). *Annex 1 to the Tirana Communiqué: EHEA Statements on Fundamental Values*. The European Higher Education Area (EHEA).  
[https://ehea.info/Download/ANNEX-1-EHEA-STATEMENTS-ON-FUNDAMENTAL-VALUES%20\(1\).pdf](https://ehea.info/Download/ANNEX-1-EHEA-STATEMENTS-ON-FUNDAMENTAL-VALUES%20(1).pdf)
- EHEA. (2024c). *Annex 2 to the Tirana Communiqué: Rules of Procedures for the European Higher Education Area*. The European Higher Education Area (EHEA).  
<https://ehea.info/Download/Annex-2-to-the-Tirana-Communique.pdf>
- EHEA. (2020a). *Rome Ministerial Communiqué*. The European Higher Education Area (EHEA). [https://ehea.info/Upload/Rome\\_Ministerial\\_Communique.pdf](https://ehea.info/Upload/Rome_Ministerial_Communique.pdf)

- EHEA. (2020b). *Rome Ministerial Communiqué. Annex I: Statement on Academic Freedom*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/Rome\\_Ministerial\\_Communique\\_Annex\\_I.pdf](https://ehea.info/Upload/Rome_Ministerial_Communique_Annex_I.pdf)
- EHEA. (2020c). *Rome Ministerial Communiqué. Annex II: Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/Rome\\_Ministerial\\_Communique\\_Annex\\_II.pdf](https://ehea.info/Upload/Rome_Ministerial_Communique_Annex_II.pdf)
- EHEA. (2020d). *Rome Ministerial Communiqué. Annex III: Recommendations to National Authorities for the Enhancement of Higher Education Learning and Teaching in the EHEA*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/Rome\\_Ministerial\\_Communique\\_Annex\\_III.pdf](https://ehea.info/Upload/Rome_Ministerial_Communique_Annex_III.pdf)
- EHEA. (2018a). *Paris Communiqué*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_final\\_952771.pdf](https://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_final_952771.pdf)
- EHEA. (2018b). *Paris Communiqué. Appendix I: Structured peer-based support for the implementation of the Bologna key commitments*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_AppendixI\\_952773.pdf](https://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_AppendixI_952773.pdf)
- EHEA. (2018c). *Paris Communiqué. Appendix II: Belarus strategy*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_AppendixII\\_952775.pdf](https://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_AppendixII_952775.pdf)
- EHEA. (2018d). *Paris Communiqué. Appendix III: Overarching Framework of Qualifications of the European Higher Education Area (revised 2018)*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_AppendixIII\\_952778.pdf](https://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_AppendixIII_952778.pdf)
- EHEA. (2018e). *Paris Communiqué. Appendix IV: The Diploma Supplement Template*. The European Higher Education Area (EHEA).  
[https://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_AppendixIV\\_952782.pdf](https://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_AppendixIV_952782.pdf)

- EHEA. (2015a). *Yerevan Communiqué*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/YerevanCommuniqueFinal\\_613707.pdf](https://eha.info/Upload/document/ministerial_declarations/YerevanCommuniqueFinal_613707.pdf)
- EHEA. (2015b). *European Approach for Quality Assurance of Joint Programmes*. October 2014 approved by EHEA ministers in May 2015. The European Higher Education Area (EHEA).  
[https://www.eqar.eu/assets/uploads/2018/04/02\\_European\\_Approach\\_QA\\_of\\_Joint\\_Programmes\\_v1\\_0.pdf](https://www.eqar.eu/assets/uploads/2018/04/02_European_Approach_QA_of_Joint_Programmes_v1_0.pdf)
- EHEA. (2012). *Making the Most of Our Potential: Consolidating the European Higher Education Area*. *Bucharest Communiqué*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/Bucharest\\_Communique\\_2012\\_610673.pdf](https://eha.info/Upload/document/ministerial_declarations/Bucharest_Communique_2012_610673.pdf)
- EHEA. (2010). *Budapest-Vienna Declaration on the European Higher Education Area*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/Budapest\\_Vienna\\_Declaration\\_598640.pdf](https://eha.info/Upload/document/ministerial_declarations/Budapest_Vienna_Declaration_598640.pdf)
- EHEA. (2009). *The Bologna Process 2020 – The European Higher Education Area in the new decade*. *Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/Leuven\\_Louvain\\_la\\_Neuve\\_Communique\\_April\\_2009\\_595061.pdf](https://eha.info/Upload/document/ministerial_declarations/Leuven_Louvain_la_Neuve_Communique_April_2009_595061.pdf)
- EHEA. (2007). *London Communiqué*. *Towards the European Higher Education Area: responding to challenges in a globalised world*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/2007\\_London\\_Communique\\_English\\_588697.pdf](https://eha.info/Upload/document/ministerial_declarations/2007_London_Communique_English_588697.pdf)
- EHEA. (2005). *The European Higher Education Area – Achieving the Goals: Communiqué of the Conference of European Ministers Responsible for Higher Education, Bergen, 19-20 May 2005*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/2005\\_Bergen\\_Communique\\_english\\_580520.pdf](https://eha.info/Upload/document/ministerial_declarations/2005_Bergen_Communique_english_580520.pdf)

- EHEA. (2003). *“Realising the European Higher Education Area”*. *Communiqué of the Conference of Ministers responsible for Higher Education in Berlin on 19 September 2003*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/2003\\_Berlin\\_Communique\\_English\\_577284.pdf](https://eha.info/Upload/document/ministerial_declarations/2003_Berlin_Communique_English_577284.pdf)
- EHEA. (2001). *Towards the European Higher Education Area. Communiqué of the meeting of European Ministers in charge of Higher Education in Prague on May 19th 2001*. The European Higher Education Area (EHEA).  
[https://eha.info/Upload/document/ministerial\\_declarations/2001\\_Prague\\_Communique\\_English\\_553442.pdf](https://eha.info/Upload/document/ministerial_declarations/2001_Prague_Communique_English_553442.pdf)
- EHEA. (1999). *The Bologna Declaration of 19 June 1999. Joint declaration of the European Ministers of Education*. The European Higher Education Area (EHEA).  
[https://eha.info/media.eha.info/file/Ministerial\\_conferences/02/8/1999\\_Bologna\\_Declaration\\_English\\_553028.pdf](https://eha.info/media.eha.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf)
- EHEA. (1998). *Sorbonne Joint Declaration: Joint declaration on harmonisation of the architecture of the European higher education system*. The European Higher Education Area (EHEA).  
[https://eha.info/media.eha.info/file/1998\\_Sorbonne/61/2/1998\\_Sorbonne\\_Declaration\\_English\\_552612.pdf](https://eha.info/media.eha.info/file/1998_Sorbonne/61/2/1998_Sorbonne_Declaration_English_552612.pdf)
- Enders, J., de Boer, H., & Weyer, E. (2013). Regulatory autonomy and performance: the reform of higher education re-visited. *Higher Education*, 65, 5-23.  
<https://doi.org/10.1007/s10734-012-9578-4>
- EQF-Europass project group. (2024). *European guidelines for the development and writing of short, learning-outcomes-based descriptions of qualifications*. Publications Office of the European Union. <http://data.europa.eu/doi/10.2801/838553>
- Esparza Masana, R., & Woolford, J. (2023). *European universities and knowledge alliances within their territorial innovation ecosystems*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2760/429140>
- Estermann, T., Bennetot, E., & Stoyanova, H. (2021). *The governance models of European University Alliances: Evolving models of university governance*. European University Association (EUA). <https://www.eua.eu/publications/briefings/evolving-models-of-university-governance.html>



- EUA. (2025a). *EUA L&T Agenda 2030: A strategic framework to strengthen universities' first mission*. European University Association (EUA).  
<https://www.eua.eu/publications/positions/eua-l-t-agenda-2030.html>
- EUA. (2025b). *Use and impact of the Erasmus+ programme (2021-27) at higher education institutions: Survey report and recommendations*. European University Association (EUA). <https://www.eua.eu/publications/reports/use-and-impact-of-the-erasmus-programme-2021-27-at-higher-education-institutions.html>
- EUA. (2024a). *Flexible learning and teaching: Thematic Peer Group Report. Learning & Teaching Paper #21*. European University Association (EUA).  
<https://www.eua.eu/publications/reports/flexible-learning-and-teaching.html>
- EUA. (2024b). *Challenges and enablers in designing transnational joint education provision: Thematic Peer Group Report. Learning & Teaching Paper #22*. European University Association (EUA). <https://www.eua.eu/publications/reports/challenges-and-enablers-in-designing-transnational-joint-education-provision.html>
- EUA. (2005). *Doctoral Programmes for the European Knowledge Society. Report on the EUA Doctoral Programmes Project*. European University Association (EUA).  
<https://www.eua.eu/publications/reports/doctoral-programmes-for-the-european-knowledge-society.html>
- European Commission. (2025a). *Erasmus+ Programme Guide*. Publications Office of the European Union. <https://erasmus-plus.ec.europa.eu/document/erasmus-programme-guide-2025-version-2>
- European Commission. (2025b). *State of implementation of the Council Recommendation on building bridges for effective cooperation in higher education 2023*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/4117439>
- European Commission. (2025c). *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The Union of Skills (COM/2025/90 final)*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0090>
- European Commission. (2024a). *Commission Staff Working Document. Report on the final outcomes of the Erasmus+ policy experimentation projects: European degree (label) and institutionalised EU cooperation instruments*. Publications Office of the European Union. [https://ec.europa.eu/transparency/documents-register/detail?ref=SWD\(2024\)291&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2024)291&lang=en)

- European Commission. (2024b). *Blueprint for a European degree: Communication from the Commission to the European Parliament, the Council, the European Economic and Social committee and the Committee of the Regions*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/496478>
- European Commission. (2024c). *Commission Staff Working Document 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 blueprint for a European degree, Proposal for a Council recommendation on a European quality assurance and recognition system in higher education and Proposal for a Council recommendation on attractive and sustainable careers in higher education*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52024SC0074>
- European Commission. (2022). *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 (COM/2022/16 final)*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52022DC0016>
- European Commission. (2020a). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on achieving the European Education Area by 2025 (COM/2020/625 final)*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52020DC0625>
- European Commission. (2020b). *Implementing joint degrees in the Erasmus Mundus action of the Erasmus+ programme*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2797/896549>
- European Commission. (2017, November 14). *Future of Europe: Towards a European Education Area by 2025. Press corner*. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_17\\_4521](https://ec.europa.eu/commission/presscorner/detail/en/ip_17_4521)
- European Commission. (2015). *ECTS users' guide 2015*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/87192>
- European Commission / EACEA / Eurydice. (2024). *The European Higher Education Area in 2024: Bologna Process Implementation Report*. Publications Office of the European Union. <https://doi.org/10.2797/483185>



- European Commission, PPMI, Grumbinaitė, I., Colus, F., & Buitrago Carvajal, H. (2025a). *Report on the outcomes and transformational potential of the European Universities initiative*. Publications Office of the European Union.  
<https://data.europa.eu/doi/10.2766/32313>
- European Commission, Fernández-Figares Durcudoy, I., Garre Hernanz, B., Kupriyanova, V., Ferencz, I., & Nygård, J. (2025b). *Planning and delivering jointness in Erasmus Mundus master's programmes: planning and delivering jointness*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2797/5128814>
- European Commission, PPMI, Burneikaitė, G., Pocius, D., Potapova, E., Valasevičienė, S., Kriščiūnaitė, G., Juzdewski, L., Sundbäck-Lindroos, A., Klemencic, M., Frederiks, M., Wit, H. d., Hoidn, S., Valeikienė, A., & Ravioli, S. (2023a). *The road towards a possible joint European degree: identifying opportunities and investigating the impact and feasibility of different approaches: final report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/945147>
- European Commission, PPMI, Kirdulytė, G., Abozeid, O., Makauskė, G., Del Cogliano, D., Pupinis, M., Schouenborg, J., Fras, M., Ponchon, C., Nicodemi, S., & Dumčius, R. (2023b). *Study on learning mobility: progress, obstacles and way forward: final report*. Publications Office of the European Union.  
<https://data.europa.eu/doi/10.2766/504434>
- European Commission, PPMI Group, Orr, D., Pupinis, M., & Kirdulytė, G. (2020a). *Towards a European approach to micro credentials: a study of practices and commonalities in offering micro-credentials in European higher education: analytical report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/7338>
- European Commission, Shapiro Futures, H., Andersen, T., & Nedergaard Larsen, K. (2020b). *A European approach to micro-credentials: output of the micro-credentials higher education consultation group: final report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/30863>
- European Parliament. (2024). *European Parliament resolution of 16 January 2024 on the implementation of the Erasmus+ programme 2021-2027 (2023/2002(INI))*. Publications Office of the European Union.  
[https://www.europarl.europa.eu/doceo/document/TA-9-2024-0007\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2024-0007_EN.html)
- European Parliament, Centre for Higher Education Internationalisation (CHEI), European Association for International Education (EAIE), International Association of Universities (IAU), Egron-Polak, E., Howard, L., Wit, H. d., & Hunter, F. (2015).

- Internationalisation of higher education*. Publications Office of the European Union.  
<https://data.europa.eu/doi/10.2861/444393>
- European Union. (n.d.). Open method of coordination. *EUR-Lex: Access to European Union law*. <https://eur-lex.europa.eu/EN/legal-content/glossary/open-method-of-coordination.html>
- Frame, A., & Curyło, B. (2022). Bringing Erasmus home: the European universities initiative as an example of ‘Everyday Europeanhood’. *Journal of Contemporary European Studies*, 32(2), 334-349. <https://doi.org/10.1080/14782804.2022.2134986>
- Fuchs, L., Cuevas-Garcia, C., & Bombaerts, G. (2023). The societal role of universities and their alliances: the case of the EuroTeQ Engineering University. *Tertiary Education and Management*, 29, 263-277. <https://doi.org/10.1007/s11233-023-09126-x>
- Gaebel, M., & Zhang, T. (2024). *Trends 2024: European higher education institutions in times of transition*. European University Association (EUA).  
<https://www.eua.eu/publications/reports/trends-2024.html>
- Galán-Cubillo, E., Serrano-Cobos, J., & López-Navarrete, A. J. (2024). Understanding European Universities Initiative as the limestone to cement Europe together: A review of existing literature. *Policy Futures in Education*, 23(3), 621-641.  
<https://doi.org/10.1177/14782103241287579>
- Galindo, M., Fennelly-Atkinson, R., Franklin, K., Luna, C. (2024). *The Role of Micro-Credentials in Lifelong Learning and Development: Empowering Learners, Empowering Organizations*. Digital Promise.  
<https://doi.org/10.51388/20.500.12265/225>
- Gamage, K. A. A., & Dehideniya, S. C. P. (2025). Unlocking Career Potential: How Micro-Credentials Are Revolutionising Higher Education and Lifelong Learning. *Education Sciences*, 15(5), 525. <https://doi.org/10.3390/educsci15050525>
- Giolla Mhichíl, M. N. (2024). *ECIU University Micro-Credential Implementation Briefing Paper*. ECIU University. [https://cdn.prod.website-files.com/562fb917aa38ca2e349b422e/6737776da47ffd95db4f0933\\_EQF\\_2024%20with%20active%20links\\_compressed.pdf](https://cdn.prod.website-files.com/562fb917aa38ca2e349b422e/6737776da47ffd95db4f0933_EQF_2024%20with%20active%20links_compressed.pdf)
- Gornitzka, Å. (2009). Networking Administration in Areas of National Sensitivity: The Commission and European Higher Education. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 109-131). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_5](https://doi.org/10.1007/978-1-4020-9505-4_5)

- Grech, A., Camilleri, A. F., & Inamorato dos Santos, A. (2017). *Blockchain in education*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2760/60649>
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11(3), 255-274. <https://doi.org/10.3102/01623737011003255>
- Gunn, A. (2024). The European Universities Initiative (EUI): Accomplishments and Challenges. In A. Curaj, C. M. Hâj, & R. Pricopie (Eds.), *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 195-211). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_12](https://doi.org/10.1007/978-3-031-75140-0_12)
- Guri-Rosenblit, S. (2015). Internationalization of Higher Education: Navigating Between Contrasting Trends. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European Higher Education Area: Between Critical Reflections and Future Policies* (pp. 13-26). Springer. [https://doi.org/10.1007/978-3-319-20877-0\\_2](https://doi.org/10.1007/978-3-319-20877-0_2)
- Hackett, S., Janssen, J., Beach, P., Perreault, M., Beelen, J., & van Tartwijk, J. (2023). The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education. *International Journal of Educational Technology in Higher Education*, 20, 5. <https://doi.org/10.1186/s41239-022-00373-3>
- Hair, J. F. Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis*. Cengage.
- Heinze, T., & Knill, C. (2008). Analysing the differential impact of the Bologna Process: Theoretical considerations on national conditions for international policy convergence. *Higher Education*, 56, 493-510. <https://doi.org/10.1007/s10734-007-9107-z>
- Herbst, A., Van der Merwe, H., Schreck, C., Freysen, J., Barnard, M. & Steel, C. (2025). *The state of play of microcredentials: Belgium/Flanders, Estonia, Ireland, Lesotho, Mauritius, Namibia & South Africa*. PoMiSA. [https://pomisa.hec.mu/documents/UTF-8PoMiSA\\_Synthesis%20Report%20April%202025.pdf](https://pomisa.hec.mu/documents/UTF-8PoMiSA_Synthesis%20Report%20April%202025.pdf)
- Hooi Keoy, K., Koh, Y. J., Iqbal, J., Anjum, S. S., Yeo, S. F., Cherukuri, A. K., Teoh, W. Y., & Awang Piut, D. A. (2024). Streamlining Micro-Credentials Implementation in Higher Education Institutions: Considerations for Effective Implementation and Policy Development. *Journal of Information & Knowledge Management*, 23(1), 2350069. <https://doi.org/10.1142/S0219649223500697>

- Hovdhaugen, E., & Wiers-Jenssen, J. (2023). Motivation for full degree mobility: analysing sociodemographic factors, mobility capital and field of study. *Educational Review*, 75(2), 195-216, <https://doi.org/10.1080/00131911.2021.1912712>
- Hufnagl, J., Schneider, P., & Annen, S. (2025). Global Citizenship in Higher Education: The Role of Academic Mobility. *Higher Education Studies*, 15(1), 359-370. <https://doi.org/10.5539/hes.v15n1p359>
- I'MINQA. (2023). *Quality assurance of micro-credentials: Reflective questions for internal and external quality assurance*. I'MINQA Working Group on Quality Assurance of Micro-credentials. European Association for Quality Assurance in Higher Education (ENQA). [https://www.enqa.eu/wp-content/uploads/QA-of-MCs\\_Reflective-Qus-for-IQA-and-EQA.pdf](https://www.enqa.eu/wp-content/uploads/QA-of-MCs_Reflective-Qus-for-IQA-and-EQA.pdf)
- INQA AHE. (2025, February 21). *Training Programme: Design, Development, and Implementation of Micro-Credentials in Latin America*. <https://www.inqaah.org/professional-development/projects/>
- Iucu, R., Iftimescu, S., Melley, A., & Carțiș, A. (2023). *SMARTT: EUROSUD Report of Quantitative & Qualitative Analysis*. CIVIS, Europe's Civic University Alliance. SMARTT project. <https://doi.org/10.5281/zenodo.10444510>
- Iucu, R., Iftimescu, S., Melley, A., & Carțiș, A. (2023). *SMARTT Report on EUROSUD Programme*. CIVIS, Europe's Civic University Alliance. SMARTT project. <https://doi.org/10.5281/zenodo.10444983>
- Iucu, R., Ciolan, L., Nedelcu, A., Zus, R., Dumitrache, A., Carțiș, A., Vennarini, L., Fernández de Pinedo, N., & Pericică, A. (2022). *Digitally Enhanced Mobility: CIVIS Handbook on Virtual Mobility*. CIVIS, a European Civic University. <https://doi.org/10.5281/zenodo.6090251>
- Janson, K., Schomburg, H., & Teichler, U. (2009). *The Professional Value of ERASMUS Mobility: The Impact of International Experience on Former Students' and on Teachers' Careers*. Lemmens. [https://www.lemmens.de/dateien/medien/buecher-ebooks/aca/2009\\_the\\_professional\\_value\\_of\\_erasmus\\_mobility.pdf](https://www.lemmens.de/dateien/medien/buecher-ebooks/aca/2009_the_professional_value_of_erasmus_mobility.pdf)
- Jarvis, P. (Ed.). (2009). *The Routledge International Handbook of Lifelong Learning*. Routledge.
- Jie, N. D. (2016). *Towards a Framework of Education Policy Analysis*. The HEAD Foundation. <https://headfoundation.org/2016/11/16/towards-a-framework-of-education-policy-analysis/>

- Johan, R. C., Rullyana, G., Susilana, R., & Emilzoli, M. (2025). Micro-credentials in higher education: a review and bibliometric. *Journal of Education and Learning (EduLearn)*, 19(2), 1103-1116. <https://doi.org/10.11591/edulearn.v19i2.21281>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33(7), 14-26. <https://doi.org/10.3102/0013189X033007014>
- Jones, E., & de Wit, H. (2024). Internationalisation and Europeanisation of Higher Education Beyond EHEA Targets: Inclusion, Transformation, and Social Responsibility. In A. Curaj, C. M. Hâj, & R. Pricopie (Eds.), *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 11-23). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_2](https://doi.org/10.1007/978-3-031-75140-0_2)
- Kanniainen, J.-P., & Pekkola, E. (2023). Between harmonization and unification in the European higher education area: scenarios for the European university initiative. *Tertiary Education and Management*, 29, 315-330. <https://doi.org/10.1007/s11233-023-09131-0>
- Kelo, M., & Iucu, R. (2024). Learning and Teaching and the Student-Centred Approach. New Perspectives on the Oldest Bologna Process Priority. In A. Curaj, C. M. Hâj, & R. Pricopie (Eds.), *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 671-684). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_33](https://doi.org/10.1007/978-3-031-75140-0_33)
- Kezar, A., & Eckel, P. D. (2002). The Effect of Institutional Culture on Change Strategies in Higher Education: Universal Principles or Culturally Responsive Concepts?. *The Journal of Higher Education*, 73(4), 435-460. <https://doi.org/10.1080/00221546.2002.11777159>
- Kingdon, J. W. (2014). *Agendas, Alternatives, and Public Policies*. Pearson.
- Knight, J. (2011). Doubts and Dilemmas with Double Degree Programs. *International Journal of Educational Technology in Higher Education*, 8, 297-312. <https://doi.org/10.7238/rusc.v8i2.1067>
- Knight, J. (2004). Internationalization Remodeled: Definition, Approaches, and Rationales. *Journal of Studies in International Education*, 8(1), 5-31. <https://doi.org/10.1177/1028315303260832>
- Knowles, M. S. (1975). *Self-Directed Learning. A Guide for Learners and Teachers*. Follett Publishing Company.

- Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology*. Sage Publications.
- Kummeling, H., Kluijtmans, M., & Miedema, F. (2024). *The University in Transition*. Publishers of Trial and Error. <https://doi.org/10.36850/af2b-4024>
- Lambrechts, A. A., Cavallaro, M., & Lepori, B. (2024). The European Universities initiative: between status hierarchies and inclusion. *Higher Education*, 88, 1227-1247. <https://doi.org/10.1007/s10734-023-01167-w>
- Lantero, L., Finocchietti, C., Petrucci, E., Eimers, M., Lokhoff, J., Wegewijs, B., Peterbauer, H., Ramina, B., Kinta, G., Tecilazic, A., Gover, A., & Cirlan, E. (2024). *Micro-credentials for Higher Education Institutions: Approaches developed in the EHEA using peer support*. CIMEA – Academic Equivalence Mobility Information Centre. [https://www.cimea.it/Upload/Documenti/Micro-credentials%20in%20HE\\_1.pdf](https://www.cimea.it/Upload/Documenti/Micro-credentials%20in%20HE_1.pdf)
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press.
- Lee, W. O., & Tan, J. (2023). Develop a Qualification Ecosystem for Adult Learners: Micro-credentialing to Formalize Informal and Nonformal Learning. In K. Evans, W. O. Lee, J. Markowitsch, & M. Zukas (Eds.), *Third International Handbook of Lifelong Learning* (pp. 821-839). Springer. [https://doi.org/10.1007/978-3-031-19592-1\\_40](https://doi.org/10.1007/978-3-031-19592-1_40)
- Letta, E. (2024). *Much more than a market – Speed, Security, Solidarity. Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens*. Publication Office of the European Union. <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>
- Lindberg-Sand, Å. (2012). The Embedding of the European Higher Education Reform at the Institutional Level: Development of Outcome-Based and Flexible Curricula?. In A. Curaj, P. Scott, L. Vlăsceanu, & L. Wilson (Eds), *European Higher Education at the Crossroads: Between the Bologna Process and National Reforms* (pp. 191-207). Springer. [https://doi.org/10.1007/978-94-007-3937-6\\_11](https://doi.org/10.1007/978-94-007-3937-6_11)
- López-Duarte, C., Maley, J. F., & Vidal-Suárez, M. M. (2021). Main challenges to international student mobility in the European arena. *Scientometrics*, 126, 8957-8980. <https://doi.org/10.1007/s11192-021-04155-y>
- Macron, E. (2017, September 26). Speech on new initiative for Europe. *Élysée*. <https://www.elysee.fr/en/emmanuel-macron/2017/09/26/president-macron-gives-speech-on-new-initiative-for-europe>



- Maina, M. F., Ortiz, L. G., Mancini, F., & Melo, M. M. (2022). A micro-credentialing methodology for improved recognition of HE employability skills. *International Journal of Educational Technology in Higher Education*, 19, 10.  
<https://doi.org/10.1186/s41239-021-00315-5>
- Manna, M. S., Balusamy, B., Sharma, M., & Samuel, P. (2023). *Blended Learning and MOOCs: A New Generation Education System*. Routledge.  
<https://doi.org/10.4324/9781003307730>
- Marginson, S., & Rhoades, G. (2002). Beyond national states, markets, and systems of higher education: A glonacal agency heuristic. *Higher Education*, 43, 281-309.  
<https://doi.org/10.1023/A:1014699605875>
- Marques, M., & Graf, L. (2024). Pushing Boundaries: The European Universities Initiative as a Case of Transnational Institution Building. *Minerva*, 62, 93-112.  
<https://doi.org/10.1007/s11024-023-09516-w>
- Martens, K., & Dieter Wolf, K. (2009). Boomerangs and Trojan Horses: The Unintended Consequences of Internationalising Education Policy Through the EU and the OECD. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 81-107). Springer.  
[https://doi.org/10.1007/978-1-4020-9505-4\\_4](https://doi.org/10.1007/978-1-4020-9505-4_4)
- Matei, L. (2018). Governance and Funding of Universities in the European Higher Education Area: Times of Rupture. In A. Curaj, L. Deca, & R. Pricopie (Eds.), *European Higher Education Area: The Impact of Past and Future Policies* (pp. 591-602). Springer.  
[https://doi.org/10.1007/978-3-319-77407-7\\_35](https://doi.org/10.1007/978-3-319-77407-7_35)
- Matei, L., Iwinska, J., & Crăciun, D. (2015). Patterns of Funding Internationalisation of Higher Education. A Conceptual Framework for the Study of Internationalisation. In A. Curja, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European Higher Education Area: Between Critical Reflections and Future Policies* (pp. 205-219). Springer. [https://doi.org/10.1007/978-3-319-20877-0\\_14](https://doi.org/10.1007/978-3-319-20877-0_14)
- Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2), 340-363.  
<http://www.jstor.org/stable/2778293>
- McGreal, R., & Olcott, D. (2022). A strategic reset: micro-credentials for higher education leaders. *Smart Learning Environments*, 9, 9. <https://doi.org/10.1186/s40561-022-00190-1>

- Mihr, A. (2022). *Glocal Governance: How to Govern in the Anthropocene?*. Springer.  
<https://doi.org/10.1007/978-3-031-02108-4>
- Mittelmeier, J., Huang, D., & Gunter, A. (2025). 'Internationalisation at a Distance' at the intersections of educational technologies and the internationalisation of higher education. *British Journal of Educational Technology*, 56, 755-761.  
<https://doi.org/10.1111/bjet.13567>
- Moodie, G., & Wheelahan, L. (2021). Credentialing micro credentials. *Journal of Teaching and Learning for Graduate Employability*, 12(1), 58-71.  
<https://doi.org/10.21153/jtlge2021vol12no1art1564>
- Muja, A., van Mensvoort, C., & Cuppen, J. (2024). *Studying abroad for everyone? Obstacles for international mobility among students in EHEA-countries*. Eurostudent.  
[https://praxis.ee/uploads/2024/10/IB\\_International-mobility.pdf](https://praxis.ee/uploads/2024/10/IB_International-mobility.pdf)
- Musselin, C. (2009). The Side Effects of the Bologna Process on National Institutional Settings: The Case of France. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 181-205). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_8](https://doi.org/10.1007/978-1-4020-9505-4_8)
- Neave, G. (2009). The Bologna Process as Alpha or Omega, or, on Interpreting History and Context as Inputs to Bologna, Prague, Berlin and Beyond. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 17-58). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_2](https://doi.org/10.1007/978-1-4020-9505-4_2)
- O'Dowd, R. (2022). *Internationalising Higher Education and the Role of Virtual Exchange*. Routledge. <https://doi.org/10.4324/9781315393704>
- OECD. (2025). *Implementation Toolkit for the OECD Recommendation on Public Policy Evaluation*. OECD Public Governance Reviews. OECD Publishing.  
<https://doi.org/10.1787/77faa4fe-en>
- OECD. (2023). *Micro-credentials for lifelong learning and employability: Uses and possibilities*. OECD Education Policy Perspectives, No. 66. OECD Publishing.  
<https://doi.org/10.1787/9c4b7b68-en>
- OECD. (2021a). *Micro-credential innovations in higher education: Who, What and Why?* OECD Education Policy Perspectives, No. 39. OECD Publishing.  
<https://doi.org/10.1787/f14ef041-en>



- OECD. (2021b). *Quality and value of micro-credentials in higher education: Preparing for the future. OECD Education Policy Perspectives, No. 40*. OECD Publishing.  
<https://doi.org/10.1787/9c4ad26d-en>
- OECD. (2020). *Back to the Future of Education: Four OECD Scenarios for Schooling, Educational Research and Innovation*. OECD Publishing.  
<https://doi.org/10.1787/178ef527-en>
- Orr, D., Rampelt, F., & Knoth, A. (2020). “Bologna Digital” – Actively Shaping the Digital Transformation in European Higher Education. In A. Curaj, L. Deca, & R. Pricopie (Eds.), *European Higher Education Area: Challenges for a New Decade* (pp. 583-596). Springer. [https://doi.org/10.1007/978-3-030-56316-5\\_36](https://doi.org/10.1007/978-3-030-56316-5_36)
- Pachler, N. (2022). Unbundling and aggregation: adapting Higher Education for Lifelong Learning to the New Skills Agenda and to Digital Transformation. In K. Evans, W. O. Lee, J. Markowitsch, & M. Zukas (Eds.), *Third International Handbook of Lifelong Learning. Springer International Handbooks of Education* (pp. 1-20). Springer.  
[https://doi.org/10.1007/978-3-030-67930-9\\_36-1](https://doi.org/10.1007/978-3-030-67930-9_36-1)
- Parsons, D., Sparks, H., Singh, A., & Vo, D. (2024). What does the Ideal Postgraduate Micro-Credential Look Like? A Student Perspective. In T. Cochrane, V. Narayan, E. Bone, C. Deneen, M. Saligari, K. Tregloan, & R. Vanderburg (Eds.), *Navigating the Terrain: Emerging frontiers in learning spaces, pedagogies, and technologies. Proceedings ASCILITE 2024* (pp. 127-136). <https://doi.org/10.14742/apubs.2024.1207>
- Pawilen, G. T. (2024). Quality Assurance Framework for Micro-credentials in Japan and in the Philippines. *International Journal of Curriculum and Instruction, 16*(2), 401-421.  
<https://ijci.net/index.php/IJCI/article/view/1456>
- Pierson, P. (2000). Increasing Returns, Path Dependence, and the Study of Politics. *American Political Science Review, 94*(2), 251-267. <https://doi.org/10.2307/2586011>
- Pirkkalainen, H., Sood, I., Padron Napoles, C., Kukkonen, A., & Camilleri, A. (2022). How might micro-credentials influence institutions and empower learners in higher education? *Educational Research, 65*(1), 40-63.  
<https://doi.org/10.1080/00131881.2022.2157302>
- Quinteri, M., & Kajee, J. (2024). Internationalisation or Europeanisation? Capturing Dynamic Concepts in Higher Education Institutions. In A. Curaj, C. M. Hâj, & R. Pricopie (Eds.), *European Higher Education Area 2030: Bridging Realities for Tomorrow's Higher Education* (pp. 25-44). Springer. [https://doi.org/10.1007/978-3-031-75140-0\\_3](https://doi.org/10.1007/978-3-031-75140-0_3)

- Read, T., & Olcott, D. (2025). Mobilizing university futures: A blueprint for change. *Policy Futures in Education*, 0(0), 1-18. <https://doi.org/10.1177/14782103251341405>
- Rensimer, L., & Brooks, R. (2024). The European Universities Initiative: further stratification in the pursuit of European cooperation? *Compare: A Journal of Comparative and International Education*, 55(4), 660-678. <https://doi.org/10.1080/03057925.2024.2307551>
- Rhodes, R. A. W. (2007). Understanding Governance: Ten Years On. *Organization Studies*, 28(8), 1243-1264. <https://doi.org/10.1177/0170840607076586>
- Rhodes, R. A. W. (1997). *Understanding governance. Policy Networks, Governance, Reflexivity and Accountability*. Open University Press.
- Rogers, E. M. (1983). *Diffusion of Innovations*. The Free Press.
- Rubin, J., & Guth, S. (Eds.). (2022). *The Guide to COIL Virtual Exchange: Implementing, Growing, and Sustaining Collaborative Online International Learning*. Routledge. <https://doi.org/10.4324/9781003447832>
- Saso, L., Costreie, S., Iucu, R., & Carțiș, A. (2024). The innovative role of European Universities Alliances in the European Higher Education Area. *Internationalisation of Higher Education – Policy and Practice*, 2024(2), 23-47. <https://www.handbook-internationalisation.com/en/handbuch/gliederung/#/Beitragsdetailansicht/924/3898/The-innovative-role-of-European-Universities-Alliances-in-the-European-Higher-Education-Area>
- Schutte, F. (2024). Micro-credentialing: The Janus of Higher Education. *International Review of Management and Marketing*, 14(6), 389-399. <https://doi.org/10.32479/irmm.17241>
- Scott, P. (2012). Going Beyond Bologna: Issues and Themes. In A. Curaj, P. Scott, L. Vlăsceanu, & L. Wilson (Eds.), *European Higher Education Area at the Crossroads: Between the Bologna Process and National Reforms* (pp. 1-14). Springer. [https://doi.org/10.1007/978-94-007-3937-6\\_1](https://doi.org/10.1007/978-94-007-3937-6_1)
- Sin, C. (2015). Teaching and Learning: A Journey from the Margins to the Core in European Higher Education Policy. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European Higher Education Area: Between Critical Reflections and Future Policies* (pp. 325-341). Springer. [https://doi.org/10.1007/978-3-319-20877-0\\_22](https://doi.org/10.1007/978-3-319-20877-0_22)
- Spady, W. G. (1977). Competency Based Education: A Bandwagon in Search of a Definition. *Educational Researcher*, 6(1), 9-14. <https://doi.org/10.3102/0013189X006001009>

- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355-374. <https://doi.org/10.2307/1882010>
- Stake, R. E. (1995). *The Art of Case Study Research*. Sage Publications.
- Stensaker, B., Maassen, P., & Rosso, A. (2023). The European University Initiative – investigating alliance formation and initial profile developments. *Tertiary Education and Management*, 29, 229-243. <https://doi.org/10.1007/s11233-023-09125-y>
- SUNY, Rubin, J., & Wilson, M. (2013). *Faculty Guide for Collaborative Online International Learning Course Development*. SUNY COIL Center. [https://www.ufic.ufl.edu/uap/forms/coil\\_guide.pdf](https://www.ufic.ufl.edu/uap/forms/coil_guide.pdf)
- Swedish Council for Higher Education. (n.d.). *The admissions system (NyA)*. <https://www.uhr.se/start/system-support-services/system-support-services-for-higher-education-institutions/the-admissions-system-nya/#:~:text=NyA%20is%20a%20system%20that,.se%2FUniversityadmissions.se>
- Tammeleht, A., Rajando, K., & Sutrop, M. (2023). Development and piloting of a micro-credential programme in research ethics and integrity leadership – an example from Estonia. *9th International Conference on Higher Education Advances (HEAd'23)* (pp. 733-740). Editorial Universitat Politècnica de Valencia. <http://dx.doi.org/10.4995/HEAd23.2023.16220>
- Tamouline, G., Greenspon, R., Tereseviciene, M., Volungeviciene, A., Trepule, E., & Dauksiene, E. (2023). Exploring the potential of micro-credentials: A systematic literature review. *Frontiers in Education*, 7, 1006811. <https://doi.org/10.3389/feduc.2022.1006811>
- The jamovi project (2024). *jamovi (Version 2.6)* [Computer Software]. <https://www.jamovi.org>
- Thi Ngoc Ha, N., Van Dyke, N., Spittle, M., Watt, A. and Smallridge, A. (2024). Micro-credentials through the eyes of employers: benefits, challenges and enablers of effectiveness. *Education + Training*, 66(7), 948-963. <https://doi.org/10.1108/ET-08-2023-0340>
- Tordai, P., Alexa Erdei, L., Imre, C. Á., Ellenbroeck, R., Guillamon, E., Tighe, B., & Quigley, N. (2022). *CHARM-EU: Criteria for Mobility Outside CHARM-EU – Challenges and Recommendations (Deliverable D5.5)*. CHARM-EU Alliance. [https://www.charm-eu.eu/wp-content/uploads/2024/09/D5.5.-Criteria-for-mobilityoutside-CHARM-EU\\_final.pdf](https://www.charm-eu.eu/wp-content/uploads/2024/09/D5.5.-Criteria-for-mobilityoutside-CHARM-EU_final.pdf)

- Tuke, G., Kapur, S., & Ashour, K. (2021). Global citizenship cultivation through the COIL-PBL model: case study of the Great Debates course. *Journal of Virtual Exchange*, 4, 80-91. <https://doi.org/10.21827/jve.4.35815>
- Una Europa. (2021). *Our view on micro-credentials: Una Europa Position Paper*. Una Europa Alliance. [https://unaeuropa.imgix.net/stories/Input-paper-micro-credentials-consultation\\_final.pdf](https://unaeuropa.imgix.net/stories/Input-paper-micro-credentials-consultation_final.pdf)
- UNESCO. (2022). *Towards a common definition of micro-credentials*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000381668.locale=en>
- UNESCO. (2021). *Reimagining our futures together: a new social contract for education*. UNESCO Publishing. <https://doi.org/10.54675/ASRB4722>
- UNESCO. (2018). *Digital credentialing: implications for the recognition of learning across borders*. UNESCO Publishing. <https://doi.org/10.54675/SABO8911>
- UNESCO. (2013). *UNESCO handbook on education policy analysis and programming, volume 1: education policy analysis*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000221189.locale=en>
- UNESCO, Sabzalieva, E., Mutize, T., & Yerovi, C. (2022). *Moving minds: opportunities and challenges for virtual student mobility in a post-pandemic world*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000380988.locale=en>
- Université Paris-Saclay. (2023). *The « European Doctorate» Label*. Maison du doctorat of University Paris-Saclay. <https://www.universite-paris-saclay.fr/en/recherche/doctorat-et-hdr/european-doctorate-label>
- University of Manchester. (2007). *Guidance for European Doctorates*. Research Office Graduate Education Team. <http://inseed.cimr.pub.ro/en/documents/Legislatie%20Europeana/EURODOCTORATE.pdf>
- Valle López, J. M., & Bastías, L., S. (2024). Educación Supranacional: ¿Realmente Existe? Análisis Bibliométrico de las Publicaciones Relativas a Políticas Educativas Supranacionales [Supranational Education: Does It Really Exist? Bibliometric Analysis of Publications Relating to Supranational Educational Policies]. *Journal of Supranational Policies of Education*, 19, 110-129. <https://doi.org/10.15366/jospoe2024.19.006>
- Valle López, J. M., & Díaz, L. S.-U. (2023). Organismos Internacionales y Políticas educativas basadas en evidencias: la evidente relación [International Organizations

- and Evidence-based Education Policy: Their evident relation]. *Revista de Educación*, 400, 107-132. <https://doi.org/10.4438/1988-592X-RE-2023-400-572>
- van der Hijden, P., & Martin, M. (2023). *Short courses, micro-credentials, and flexible learning pathways: a blueprint for policy development and action: policy paper*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000384326.locale=en>
- Veiga, A., & Amaral, A. (2009). Policy Implementation Tools and European Governance. In A. Amaral, G. Neave, C. Musselin & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 133-157). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_6](https://doi.org/10.1007/978-1-4020-9505-4_6)
- Vögtle, E. M. (2014). *Higher Education Policy Convergence and the Bologna Process: A Cross-National Study*. Palgrave Macmillan.
- Weible, C. M. (Ed.). (2023). *Theories of the Policy Process*. Routledge. <https://doi.org/10.4324/9781003308201>
- Wihendro, Warnars, H. L. H. S., Prabowo, H., & Sfenrianto. (2024). Understanding the Definitions of Microcredentials in Higher Education: Systematic Literature Review. *2024 International Conference on TVET Excellence & Development (ICTeD)* (pp. 188-194). <https://doi.org/10.1109/ICTeD62334.2024.10844648>
- Witte, J. (2009). Parallel Universes and Common Themes: Reforms of Curricular Governance in The Bologna Context. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 227-255). Springer. [https://doi.org/10.1007/978-1-4020-9505-4\\_10](https://doi.org/10.1007/978-1-4020-9505-4_10)
- Woodman, T. C., Whatley, M., & Glass, C. R. (Eds.). (2023). *Digital Internationalization of Higher Education: Beyond Virtual Exchange*. Routledge. <https://doi.org/10.4324/9781003444237>
- Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods*. Sage Publications.
- YUFE. (2020, December 2). *Launch of the YUFE Diploma Supplement Track*. UEF-KAMU. <https://kamu.uef.fi/en/launch-of-the-yufe-diploma-supplement-track/>
- Zgaga, P. (2012). Reconsidering the EHEA Principles: Is There a “Bologna Philosophy”? In A. Curaj, P. Scott, L. Vlăsceanu, & L. Wilson (Eds.), *European Higher Education Area at the Crossroads: Between the Bologna Process and National Reforms* (pp. 17-38). Springer. [https://doi.org/10.1007/978-94-007-3937-6\\_2](https://doi.org/10.1007/978-94-007-3937-6_2)
- Zus, R., Fernández de Pinedo, N., Vennarini, L., Dumitrache, A., Carțiș, A., & Iucu, R. (2022). A Responsive Approach to the New Academic Mobility. Building a

Conceptual Framework for Embedding Digitally Enhanced Mobility in a European University. In A. M. Dima (Ed.), *Fostering Recovery Through Metaverse Business Modelling* (pp. 458-468). The Bucharest University of Economic Studies.

<https://doi.org/10.2478/9788367405072-041>

### SUMMARY IN ROMANIAN

Învățământul superior european traversează o profundă transformare, determinată de evoluții dinamice în așteptările societății, avansul tehnologic, cerințele în continuă schimbare ale pieței muncii și intervenții strategice la nivelul politicilor publice. În centrul acestei narațiuni transformative se află trei dimensiuni educaționale inovative interconectate: *micro-certificările*, *Diploma Europeană* și *mobilitatea integrată*. Aceste dezvoltări nu reprezintă simple reforme incrementale, ci schimbări substanțiale de la cadre curriculare tradiționale și rigide către aranjamente de învățare modulare, flexibile și transnaționale. Prezenta teză doctorală investighează riguros aceste paradigme educaționale emergente din Spațiul European al Învățământului Superior (SEÎS), analizând sistematic impactul lor asupra formulării politicilor, practicilor instituționale, implicării părților interesate și strategiilor de digitalizare.

În ultimele două decenii, Procesul Bologna și dezvoltarea SEÎS au restructurat fundamental peisajul învățământului superior european, armonizând ciclurile de studii, promovând transparența cadrelor de calificări și susținând colaborarea internațională extinsă. În acest context în evoluție, Alianțele Universităților Europene au devenit puternice incubatoare de inovare educațională, pilotând noi modele curriculare, stabilind structuri transnaționale de guvernare și promovând noi scheme inovative de mobilitate. În acest cadru, teza explorează specific modul în care micro-certificările, Diploma Europeană și mobilitatea integrată funcționează nu doar ca instrumente educaționale inovative, ci și ca lentile prin care pot fi examinate și înțelese transformările educaționale mai ample.

Teza este structurată în jurul a patru obiective de cercetare explicit definite și interconectate. În primul rând, investighează *coerența politicilor și structurile de guvernare*, analizând modul în care cadrele de politici europene și naționale influențează adoptarea și implementarea inovării educaționale. În al doilea rând, examinează critic *strategiile instituționale de implementare*, analizând cum instituțiile de învățământ superior transpun politicile macro-nivel în aranjamente practice și pedagogice inovative. În al treilea rând, explorează *implicarea și percepțiile părților interesate și a comunității academice*, examinând perspectivele, experiențele și nivelurile de acceptare din partea studenților, cadrelor academice, liderilor instituționali și altor părți interesate externe precum angajatori și decidenți politici. În al patrulea rând, teza analizează *digitalizarea și dezvoltările orientate spre viitor*, investigând modul în care tehnologiile digitale emergente și infrastructurile de certificare susțin scalabilitatea, transparența și recunoașterea transfrontalieră a noilor modele educaționale.

Pentru a explora sistematic aceste dimensiuni, cercetarea adoptă *o metodologie mixtă robustă*, integrând analiza calitativă comparată a politicilor, studii de caz instituționale detaliate și anchete cantitative cuprinzătoare adresate părților interesate. La nivel de politici, studiul examinează extensiv cadre-cheie europene, identificând oportunitățile critice și barierele persistente în calea implementării eficiente, în special cele legate de recunoaștere, acreditare și coerență reglementară între contexte naționale.

Dimensiunea instituțională este explorată empiric prin studii de caz aprofundate în instituții de învățământ superior și Alianțe de Universități Europene. Aceste analize instituționale demonstrează clar diversitatea strategiilor adoptate de universități pentru operaționalizarea micro-certificărilor, Diplomei Europene și mobilității integrate în cadrul curriculumului. În mod special, micro-certificările sunt tot mai mult poziționate ca instrumente esențiale pentru flexibilizarea învățării, dobândirea rapidă de competențe și alinierea la cerințele dinamice ale pieței muncii. Cu toate acestea, rămân provocări substanțiale, precum practicile neuniforme de acreditare, cadrele fragmentate de recunoaștere și capacitățile instituționale variabile. Studiile de caz instituționale subliniază, de asemenea, că implementarea cu succes necesită ajustări organizaționale semnificative, leadership proactiv și alocare strategică a resurselor.

Inițiativa Diplomei Europene ilustrează atât potențialul transformator, cât și complexitatea intrinsecă a modelelor educaționale transnaționale. Diplomele Europene urmăresc să simplifice procesele de recunoaștere, să intensifice mobilitatea transnațională și să consolideze o identitate academică europeană comună. Cu toate acestea, constatările empirice indică fricțiuni structurale și de reglementare semnificative, complexități administrative și niveluri variate de acceptare din partea părților interesate în contexte naționale diferite, reflectând tensiunea dintre autonomia instituțională și necesitatea unei coerențe la nivel european.

Mobilitatea integrată, incluzând formate hibride precum învățarea colaborativă internațională online (COIL) și programele intensive mixte (BIP), apare ca un mecanism deosebit de promițător pentru extinderea accesului studenților la experiențe internaționale, îmbunătățind semnificativ competențele interculturale și promovând internaționalizarea incluzivă. Dovezile empirice susțin ferm afirmația că mobilitatea integrată sporește participarea și implicarea studenților în comparație cu schemele tradiționale de mobilitate pe termen lung. Totuși, în ciuda beneficiilor clare, integrarea curriculară rămâne inconsistentă, cu o variabilitate substanțială în calitatea implementării, mecanismele de recunoaștere și cadrul de sprijin instituțional.



Percepțiile comunității și părților interesate, surprinse sistematic prin anchete cantitative și feedback calitativ, constituie o componentă crucială a cercetării. Rezultatele relevă un sprijin larg, dar condiționat, al comunităților academice, liderilor instituționali și studenților față de aceste inovări transformative. Părțile interesate subliniază constant importanța măsurilor clare de asigurare a calității, proceselor transparente de recunoaștere și relevanței demonstrate pe piața muncii. În mod particular, studenții subliniază valoarea adăugată și atractivitatea parcursurilor flexibile de învățare, micro-certificărilor și experiențelor internaționale integrate, exprimând totodată preocupări legate de inegalități potențiale privind decalajele digitale, capacitățile instituționale și incoerențele reglementare.

Pornind de la constatările empirice extinse și analiza aprofundată a politicilor, teza propune un nou cadru conceptual, ilustrat sub forma unei *piramide inversate structurate pe trei niveluri*. Acest model conceptual evidențiază într-o manieră sugestivă relațiile ierarhice, dar totodată interdependente, dintre politicile macro-nivel, strategiile instituționale de nivel mezo și implicarea părților interesate la nivel micro. În mod esențial, modelul subliniază că, deși structurile coerente de politici și inovarea instituțională sunt indispensabile pentru inițierea transformărilor educaționale, sustenabilitatea pe termen lung depinde critic de încrederea, recunoașterea și implicarea activă a tuturor părților interesate. Această concluzie reprezintă o contribuție fundamentală atât teoretică, cât și practică, fiind operaționalizată prin intermediul unor bucle de feedback și al unor relații de interdependență explicate prin intermediul modelului „Cadre-Implementare-Implicare” („*Frameworks-Implementation-Engagement*” – *FIE*), care pune accentul pe implicarea părților interesate ca factor determinant în succesul sau eșecul inițiativelor educaționale transformative.

Din punct de vedere strategic, teza oferă implicații și recomandări semnificative pentru decidenții politici, liderii instituționali și specialiștii în educație. Recomandările subliniază nevoia urgentă de a consolida coerența și interoperabilitatea cadrelor europene și naționale privind acreditarea și recunoașterea, de a dezvolta arhitecturi curriculare instituționale mai flexibile și modulare și de a implementa strategii proactive pentru implicarea părților interesate. De asemenea, investițiile strategice în infrastructura digitală, în soluții interoperabile pentru certificare și în mecanisme transparente de asigurare a calității sunt evidențiate ca factori critici pentru asigurarea recunoașterii transfrontaliere, credibilității și încrederii tuturor părților implicate.

În cele din urmă, teza se aliniază explicit filosofiei *Doctor Europaeus*, reflectând principiile fundamentale ale colaborării academice transnaționale și diseminării proactive la nivel global a inovării educaționale europene. Prin oferirea unor perspective empirice

consistente, a unor cadre teoretice solide și a unor recomandări strategice clare, această teză îmbogățește semnificativ literatura de specialitate și discursul din zona politicilor educaționale privind transformarea învățământului superior atât în Europa, cât și la nivel internațional. Astfel, lucrarea nu constituie doar o cercetare academică aprofundată, ci și o foaie de parcurs strategică pentru dezvoltarea unor sisteme de învățământ superior orientate spre viitor, flexibile și integrate internațional, capabile să răspundă eficient cerințelor societale și economice contemporane.