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‘Should I stay or should I go?’

What can we learn from prior research about what makes graduates stay in the region where they studied?

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1. Introduction

In line with the scope of the pilot study STAY, this report of working package 1 presents a review of prior research conducted on graduates' decisions to stay in or leave the region where they conducted their studies. A total of 110 academic articles published in international, peer-reviewed journals were identified as relevant and included in the review. For your convenience and ease of navigation, the main findings are highlighted in bold.

2. Theoretical Background

The decision for graduates to stay or leave the region of study can be viewed in two distinct ways: from an individual self-focused perspective (Hall, 2004) or as a dynamic decision that is influenced and determined by the multi-level interaction between different actors within a social system (Baruch & Rousseau, 2019). This social system can resemble an ecosystem that is "characterized by a large number of loosely interconnected participants that depend on one another for their effectiveness" (Iansiti & Levien, 2004, p. 5). The analogy of 'ecosystem' is useful because it brings together both perspectives by highlighting that individuals will thrive depending on the quality of relationships between the participants and the function each contribute with to have a functioning ecosystem (Iansiti & Levien, 2004). Likewise, a career ecosystem consists of individuals, organizations and societies that are in constant interaction and interdependence (Donald, Van der Heijden, & Baruch, 2024). In this ecosystem, the individual makes constant assessment on whether to stay, leave or change career path. The organizational level depends on globalization/localization, sector, HRM practices and policies (Bagdadli & Gianecchini, 2019). At the societal level, national and regional actors can shape regulations, policies, norms and values that, in turn, influence intentions and actions at both individual and organizational level (Donald et al., 2024; Kaše et al., 2020). Thus, this review adopts an ecosystem perspective by bringing specific attention to graduates' transition from university studies to the labour market.

3. Descriptive Findings

Presenting the descriptive and content findings of this study, we follow the procedures suggested by Tranfield and Denyer (2009). In this section we map out the publication themes, methodological choices and theoretical frameworks of the reviewed articles. In the following section, we present the main results based on a thematic analysis with an integrative model that unpacks the phenomenon of graduate retention in the region.

Most of the reviewed publications were positioned at the intersection of higher education, labour market studies, regional development, migration, and employability research, representing different fields, such as higher education studies, regional studies, labour economics, sociology, management, and workforce development. Several studies also emerged from specialised professional domains such as medical education, dentistry, information management, and health workforce planning. This disciplinary diversity reflects the complexity of graduate employability and retention, particularly in relation to spatial mobility, regional labour markets, and the transition from education to work.

Curiosity about education, labour market outcomes and regional retention emerged half a century ago, when Hafferty and Goldberg (1986) examined how decentralised health

training pathways influenced the regional retention of physician assistants and nurse practitioners in underserved areas. Their study demonstrated that geographically targeted educational strategies, particularly terminal training placements aligned with students' home regions, significantly increased the likelihood that graduates would remain and practise in those areas. During the following two decades, studies on graduate retention and labour market transitions appeared occasionally, primarily from labour economics and regional development fields. A substantial increase in publications emerged after 2011, with 102 of the 110 reviewed articles published from 2011 onwards. In particular, the 69 articles published since 2019 demonstrate the growing scholarly engagement with graduate employability, international graduate mobility, regional workforce sustainability, and the role of higher education institutions in regional development. The increasing number of contributions from Australia, China, Germany, Italy, Canada, and other regions have broadened the understanding of how local labour markets, policy environments, and educational systems shape graduate employment and retention outcomes.

In terms of methodological focus of this prior research, the reviewed articles adopted a wide range of approaches. Approximately 45% of the studies employed quantitative designs, 35% adopted qualitative approaches, 10% used mixed-methods designs, and the remaining studies were conceptual, theoretical, or review-based contributions. The quantitative studies relied heavily on large-scale graduate surveys, longitudinal cohort studies, census records, administrative datasets, and national labour market databases to examine graduate mobility, employability, regional retention, and labour market transitions. Several studies used nationally representative datasets that enabled the comparison of graduates across regions, industries, and educational pathways. For example, Fini, Meoli, and Sobrero (2022) analysed longitudinal data from 3,436 graduates across 62 Italian universities to examine how interregional mobility influenced graduates' early career decisions between self-employment and salaried work. Studies from Germany used social security records and event history analysis to investigate how migration and prior work experience shaped university-to-work transitions (Teichert, Niebuhr, Otto, & Rossen, 2024). Others used national Canadian medical graduate datasets to investigate retention patterns across medical school service regions and professional practice locations (Barber, van der Vleuten, & Chahine, 2024). The qualitative studies used mainly semi-structured interviews, narrative inquiry, focus groups, document analysis, and thematic analysis. These studies explored graduates' experiences of employability, labour market integration, migration decision-making, and identity formation. A substantial proportion of the qualitative research focused on international graduates and their navigation of host-country labour markets. For example, Lin (2025) interviewed Chinese international graduates in Australia and China to understand how graduates negotiated workplace location decisions and migration pathways. Other studies explored how international graduates mobilised different forms of employability capital, negotiated discrimination and labour market barriers, and interpreted migration and employment policies within specific national contexts (Dai & Pham, 2024; Soltani & Tomlinson, 2024; Tang, 2023). The reviewed articles included a wide range of national and regional contexts.

About 30% of the reviewed articles did not apply an explicit theoretical framework. Among the remaining studies, many adopted structurally oriented perspectives that explained graduate mobility, employability, and retention through regional labour markets, geographical inequalities, institutional conditions, and economic opportunities. These studies commonly drew on theories related to economic geography, regional development, brain drain, agglomeration, labour market mismatch, migration, and human capital. For example, many of these studies focused on graduate mobility and retention in relation to regional labour market conditions and migration dynamics (Dotti, Fratesi, Lenzi, &

Percoco, 2013; Fini et al., 2022; Venhorst & Cörvers, 2018). More recent studies increasingly focused on graduates' agency and navigation of labour markets, drawing on Bourdieu's theory of capital and habitus, employability capital frameworks, identity perspectives, and agency-oriented approaches (Blackmore, Gribble, & Rahimi, 2017; Dai & Pham, 2024; Tang, 2023).

4. Content Findings

In this section, we present the key findings regarding graduate retention, and labour market transition. Guided by the career ecosystem theory, we identified three key actors in constant, direct interaction: Graduates, University and Employers. The public sector also emerged as an important actor in this ecosystem, but their influence was mainly indirect, operating through migration policies, higher education funding, regional development initiatives, labour market regulations, and workforce planning strategies. We further developed three mechanisms that explain how graduate employability and retention are produced within career ecosystem: 1- professional socialisation; 2- capital mobilisation and conversion; and 3- institutional (dis)alignment and mediation. Based on these findings, we developed an integrative model that provides a comprehensive understanding of how geographical location affects graduates' retention in the region of study (Figure 1). Next, we elaborate on the model. But before we do so we, it is important to outline key constructs as described in the literature.

4.1.Key constructs

A recent literature review by Borg, Scott-Young, and Bartram (2025) calls for the need to distinguish between *employability* and *graduate employability*. Unlike general employability that includes the full spectrum of individuals' career journeys, graduate employability focuses on the transition from education to employment. The authors define graduate employability as "[a] function of attributes that facilitate success in securing new employment, including work readiness skills, qualifications, work permits/visas, job search/ application skills, demographics, language, market" (Borg et al., 2025). They also warn against scholars that use graduate employability interchangeably with *graduate work readiness*. In their review, they argue that graduate work readiness is an element of employability and define it as "[a] graduate's possession of a range of attributes encompassing a set of skills, behaviours and values that facilitate a successful transition from study to the workplace" (Borg et al., 2025). What these definitions have in common is that they both stress certain attributes, skills, behaviours and things that individuals can possess and have. Surprisingly, while many of the included studies refer to labour market fit, it is not defined and can refer to different forms of labour market fit, including technical/qualification fit (Ege & Erdil, 2023), organizational and cultural fit (Blackmore & Rahimi, 2019), professional integration (Higginbottom,2011), social legitimacy fit (Tang, 2023), and spatial/regional fit (Muñoz-Fernández et al., 2023).

Construct	Definition
Graduate Employability	A function of **attributes** that facilitate success in securing new employment, including work readiness skills, qualifications, work permits/visas, job search/application skills, demographics, language, market (Borg et al., 2025).
Graduate Work Readiness	A graduate's **possession** of a range of attributes encompassing a set of **skills, behaviours and values** that facilitate a successful transition from study to the workplace (Borg et al., 2025).
Labour Market Fit	• Technical/qualification fit (Ege & Erdil, 2023) • Organisational/cultural fit (Blackmore & Rahimi, 2019) • Professional integration (Higginbottom, 2011) • Social legitimacy fit (Tang, 2023) • Spatial/regional fit (Muñoz-Fernández et al., 2023)

4.2.Actors in the Graduate Career Ecosystem

4.2.1. Individuals (Graduates)

Synthesising the findings related to individual-level factors, we observe two key perspectives on graduates that explain how graduates with similar qualifications can experience very different outcomes due to differences in their access to networks, familiarity with workplace norms, confidence in navigating recruitment processes, and the actions that graduates take to influence perceived legitimacy within the labour market. The first perspective, mainly within sociology, labour economic and regional studies, focuses on the structural conditions in shaping graduates transition to labour market and their decision decisions to stay or leave the region of study. These studies show how graduates' social background, spatial inequalities and labour market conditions contribute to unequal starting points that influence university choice, mobility decision and job opportunities. Several studies show that graduates' mobility is connected to regional opportunity structures. For example, mobility from South to Northern Italy reduces education-job mismatch since graduates are able to access regions with stronger labour markets with higher absorptive capacity (Iammarino & Marinelli, 2015). Similar studies have shown that highly skilled graduates are more likely to leave weaker regions, that is regions with high unemployment and limited industrial development, suggesting that policies and initiatives aimed at strengthening local skills may have unintentional consequences in facilitating outward mobility rather than retaining graduates (Muñoz-Fernández, Bertucci, Ramos-Ruiz, & Garo, 2023; Venhorst & Cörvers, 2018). Other studies expand on graduate mobility by highlighting that these decisions are shaped not only by economic opportunity but also by regional familiarity, place attachment and prior educational mobility (Oosterbeek & Webbink, 2011). In Germany, graduates are more likely to stay in the university region, return to their home region or relocate to regions that are similar to their home region (Buenstorf, Geissler, & Krabel, 2016). Studies from New Zealand show that graduates are attracted to regions with strong "quality of business", but they also highlight that this can vary across fields of study (Grimes, Badenhorst, Maré, Poot, & Sin, 2023). Further, studies show that graduates who studied abroad are more likely to decide to continue living abroad (Oosterbeek & Webbink, 2011). Research from Sweden shows that spatial inequalities may emerge before labour-market entry (Ahlin, Andersson, & Thulin 2018), claim that this is because highly-skilled students are disproportionately sorted into

urban regions through university choice, since prestigious universities tend to be concentrated in metropolitan areas.

The second perspective reflects a growing body of research within employability and international education, that acknowledges structural conditions but stresses graduates' agency in developing and mobilising different forms of capital to transition, navigate and overcome labour-market uncertainty (Dai & Pham, 2024; Haltia, Isopahkala-Bouret, & Mutanen, 2023; Pham, Soltani, & Singh, 2024; Soltani & Tomlinson, 2024). Research on Chinese international graduates challenges the 'deficit framing', showing how they are able to navigate the Australian labour market by strategic accumulation of experience, networks, and cultural understanding (Tang, 2023). Others emphasise that graduates' decision to stay in Australia or return to China depends on individuals' interpretation of potential opportunities, career prospects, immigration policies and broader social conditions across host and home countries (Lin, 2025). This body of research also highlights that graduates' labour-market outcomes remain socially differentiated even in welfare-oriented contexts. In the Finnish context, studies show that graduates from middle-class backgrounds benefit from inherited economic, cultural, and social capital that provides them with a "head start" in securing desirable employment. By contrast, graduates from less privileged backgrounds rely more heavily on institutional support, peer relationships, and work experience to overcome structural barriers (Haltia et al., 2023). In the British context, studies show that second-generation graduates in Britain often **accept precarious or mismatched employment because they "do not have the luxury to wait" for ideal opportunities** (Naseem, 2019). Together, these studies show that graduates' decisions are very much context dependent and can vary depending on graduates' perceptions.

4.2.2. University

Across the reviewed papers, research shows that university experience play an important role in attracting students, shaping graduate outcome and regional retention. More specifically, the literature highlights two university roles: capability formation and regional development.

In the literature, it is clear that one university's key roles is facilitating the formation and development of *graduates' capabilities* through formal education, work-integrated learning, internships, placements, collaborative learning, extracurricular activities, and workplace socialisation (Cox et al., 2013; Edwards et al., 2015; Soltani & Tomlinson, 2024). While many of the studies view capabilities as a static set of skills that individuals possess and desirable attributes that employers are looking for (Borg et al., 2025; Edgar et al., 2013; Jackson et al., 2016), others argue that capability is socially developed through engagement, interaction and participation and therefore is "a product of individual's engagement in the practices of community of practices" (Soltani & Tomlinson, 2024, p. 223). This emerging stream of literature highlights that capabilities are not limited to individuals' possessions, but are socially constructed and relational (Blackmore et al., 2017; Blackmore & Rahimi, 2019; Tran et al., 2021). For example, Soltani and Tomlinson (2024) show that international students develop employable selves through familiarisation with workplace norms, positioning themselves as career-ready individuals, and imagining future employable identities. Importantly, the literature also shows that capability formation is unevenly distributed. These studies claim that graduates from privileged backgrounds often enter higher education with stronger confidence, labour-market familiarity, communication styles, and social networks, while less privileged graduates rely more heavily on institutional support and workplace exposure to build similar

capabilities (Haltia et al., 2023). Furthermore, these studies shed light on the longitudinal process of capability formation with different capabilities become more important at different stages of the graduate's transition (Pham et al., 2024). For example, during the early transition stage, several studies show that capabilities linked to labour-market entry become more salient. These include communication skills, teamwork, confidence, interview performance, networking ability, and labour-market familiarity (Edgar et al., 2013). Other studies focusing on graduate transition and employability development emphasise confidence, workplace familiarity, adaptability, and understanding of professional norms (Soltani & Tomlinson, 2024). Research on international graduates further highlights the importance of understanding recruitment norms, networks, relationship-building, and labour-market familiarity in accessing opportunities and navigating transition processes (Blackmore et al., 2017; Haltia et al., 2023; Lin, 2025; Tang, 2023). Additionally, these studies show that acquiring a university degree is only a first step: The academic qualifications are important as entry signals, but are insufficient on their own, especially in a competitive or unfamiliar labour markets (Lin, 2025; Tang, 2023; Tran & Bui, 2021). **What matters is the combination of qualifications with work experience, language proficiency, professional network, extra-curricular participation, practical and social background** including class, religion, ethnicity and life-course strategy (Fachelli & Fernández-Toboso, 2021; Naseem, 2019; Rérat, 2014; Tran, Blackmore, & Rahimi, 2021; Weiss, Klein, & Grauenhorst, 2014).

Other studies extend this discussion by showing that positive university experience does not automatically translate into local graduate retention in the region (Eley & Baker, 2006). Instead, **retention is found to be a process that is developed across the education journey** (Barber et al., 2024). Specifically, **regional retention becomes stronger if students continue their education in the same region, remain in the region for longer time, have access to professional and community networks, opportunity for internship/placements in the same region and the region is able to absorb the graduates in meaningful work** (Hafferty & Goldberg, 1986; Johnson, Foster, Blinkhorn, & Clive Wright, 2020; Kitchener, 2021; McGrail, O'Sullivan, & Russell, 2018). These studies also argue that regional retention varies across the training continuum and is influenced by factors such as specialty, training location and professional pathways, highlighting that **retention is a longitudinal process rather than a single decision point** (Barber et al., 2024).

4.2.3. Employer/Company

The third important actor in the career ecosystem is the employer. Here, we identify three key themes 1) what employers think about candidates, 2) what firms do in recruitment, and 3) what organizations do after hiring.

1. Starting with what employers think and value about graduates as candidates, the literature shows that **employers are not only interested in the academic qualification, but that they also evaluate a broader bundle of signals that includes immediate work readiness, field-relevant experience, communication and interpersonal ability, teamwork, leadership, language competence, intercultural, technical and soft skills, and evidence of motivation or initiative** (Edgar et al., 2013; Scrimieri, Patrizi, & Pastore, 2024; Shchegolev, Lassleben, & Martinez, 2016). Some of these studies bring attention to the type of work experience and internship and stress the need for "**well roundedness**" and relevant work experience to speed up the transition to employment (Edgar et al., 2013; Teichert et al., 2024; Weiss et al., 2014). At the same time, even when employers recognize graduates' degree, soft skills and

technical competencies, other filters such as **eligibility, language and—especially—perceived organisational "best fit" may exclude graduates from further consideration** (Blackmore et al., 2017; Blackmore & Rahimi, 2019). These studies suggest that *graduate work readiness*, from an employer perspective, refers to what graduates can bring with them immediately to the organization, whereas *employability* depends on how employers interpret and value the broader bundle of graduates' signals.

2. Turning to what firms do in the recruitment process, studies suggest that this process is not necessarily neutral nor is it purely based on merits. Studies show that **organizations may use internships, university connections, prior hiring processes and geographically-anchored recruitment strategies to reduce uncertainty and build a talent pipeline.** For example, an employer may orient the recruitment towards nearby higher education, rather than explicit quality criteria. Winterhager and Krücken (2015) explain that employers assume this orientation will lead to higher expected recruitment and retention success, avoiding competition with other employers, and reduce uncertainty. Other studies have brought attention to that organizations' internationalization stages can lead to different recruitment practices where **more internationalized companies are better able to recognize graduates' country-specific and intercultural skills as an added resource** (Shchegolev et al., 2016). Blackmore et al. (2019) further show that recruitment processes themselves can reproduce exclusion where algorithms, initial screening procedures, and final interviews can privilege familiarity, local experience, and organisational sameness, even where firms publicly endorse diversity. These findings suggest that labour-market fit is not limited to technical match between qualification and job but also organisational judgement of risk mitigation and who belongs (Blackmore et al., 2017; Blackmore & Rahimi, 2019; Higginbottom, 2011).

3. The literature also shows that employability is not only shaped by the recruitment process, but also what organizations do after hiring graduates. Studies of internationally educated nurses and international medical graduates show experienced negative work contracts, discrepancy between expected and actual professional role, insufficient support on arrival, perceived discrimination, and weak workplace induction can all undermine transition, even where graduates are highly motivated and professionally capable (Higginbottom, 2011; Wright et al., 2012). Others suggest that organisational cultures could also play an important role since it may may privilege similarity even when companies are publicly endorsing diversity (Blackmore & Rahimi, 2019). Rural and regional studies repeatedly show that local internships, supportive working environments, full-time work, mentoring, community ties, and professional networks can improve retention, while weak wages, limited progression, partner constraints, and isolation undermine it (Arora, Chamnan, Nitiapinyasakul, & Lertsukprasert, 2017; Edwards, Da Silva, Rapport, McKimm, & Williams, 2015; Johnson et al., 2020; Kitchener, 2021; Winterhager & Krücken, 2015). Collectively, these studies highlight that labour-market fit deals with how graduates are integrated in the organizational culture.

Overall, the literature positions organizations as an active co-constructor of employability and labour-market fit by deciding what is perceived as usable skill, what is regarded as acceptable experience, what counts as "fit", and which graduates are worth investing in after recruitment.

4.2.4. Public sector

The public sector is an important further actor in the graduate career ecosystem. While the previous three actors have a direct interaction, the public sector actor has an indirect role in shaping graduates' retention through migration policies, higher education governance, regional development support, workforce planning and public investment in regions and human development. In other words, the actors in the public sector shape the conditions within which the universities, employers and graduates interact.

Several studies show that public investment in education and skills development does not automatically translate into local graduate retention. For example, studies have shown that EU Structural Funds led to improved graduates' educational attainment and employability, but also contributed to increased outward mobility because graduates were able to use their enhanced skills in stronger labour markets elsewhere (Muñoz-Fernández et al., 2023). Similarly, Addessi et al. (2025) showed that **regional-development expectations placed on universities may not align with funding structures and institutional incentives, particularly in economically weaker regions where local labour markets are unable to absorb graduate talent effectively**. Others show that the regional contribution of universities goes beyond educational investment and depends on labour-market opportunities, wage levels, and the economy to retain graduates locally (Janzen, Panitz, & Glückler, 2022).

The studies also show that public-sector actors influence graduate mobility and employability through migration and labour-market regulation. Research on international graduates in Australia demonstrates that **visa policies, post-study work rights, and employer sponsorship systems strongly shape graduates' transition opportunities and decisions to stay or leave** (Blackmore et al., 2017; Blackmore & Rahimi, 2019). We observe in these studies how changes in migration policy create uncertainty for international graduates in fields such as accounting, engineering, and nursing, shifting attention from career development towards visa management and residency strategies. Others have shown how migration laws and organisational familiarity with international labour mobility can also influence employers' willingness to recruit international graduates (Shchegolev et al., 2016).

In healthcare and rural workforce studies, public-sector actors appear more directly involved in graduate retention through coordinated workforce planning and regional training strategies. These studies show that, for example, retention of medical graduates varies across specialties, training stages, and service regions, highlighting the importance of long-term workforce coordination across the education journey (Barber et al., 2024). Other studies show that investment in rural training capacity can improve local and regional retention (Kitchener, 2021). In the Thai context, rural doctor retention was strengthened through coordinated collaboration between ministries, universities, and healthcare institutions (Arora et al., 2017). Other studies further suggest that **retention improves when graduates are embedded early into local professional and community networks through publicly supported regional placements and training pathways** (Johnson et al., 2020; McGrail et al., 2018). Collectively, these studies suggest that **the public sector is the backdrop of the ecosystem that shapes facilitate or constrain conditions for graduate employability in the region of study.**

Figure 1 below provides an integrated framework of the literature discussed.

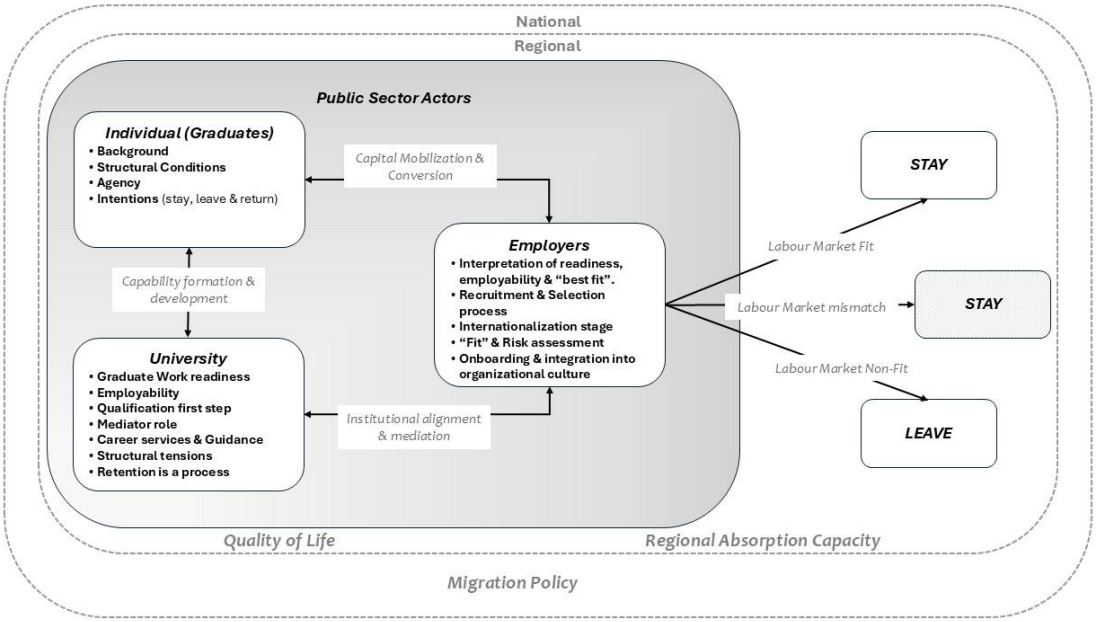


Figure 1: Integrative model of findings (source: authors)

4.3.Mechanisms

In this study, we identify three mechanisms through which graduate transition, labour-market fit and regional retention are produced in the career ecosystem. By mechanism, we refer to the process through which interaction between actors' shapes whether graduates become work-ready, are recognised as employable, and are eventually retained in or lost from the region. The three mechanisms are: (1) professional socialization, which captures how interaction between graduates and universities shapes graduates' work readiness and sense of employability; (2) capital mobilisation and conversion, which captures the signalling and conversion process of graduate to transition into employment; and (3) (dis)institutional alignment, captures how universities, employers coordinate—or fail to coordinate—education, labour-market needs. These mechanisms are analytically distinct, but they interact in practice.

1. *Professional socialisation* refers to the process through which students become familiar with professional norms, workplace expectations, disciplinary identities, and labour-market practices from the day they become students until they graduate. Across the reviewed literature, universities were positioned as important sites of professional socialisation due to the important role they play in exposing students to disciplinary knowledge, workplace expectations, professional norms, and labour-market practices (Fachelli & Fernández-Toboso, 2021; Weiss et al., 2014), placements and regional/rural training pathways (Eley & Baker, 2006; Hafferty & Goldberg, 1986; McGrail et al., 2018), career guidance and institutional support (Jimenez Vivas & Menendez Alvarez-Hevia, 2017; Pavlin, 2014), and interaction with employers and professional communities (Edgar et al., 2013; Winterhager & Krücken, 2015). Studies of international graduates further show that professional socialisation also involves learning implicit workplace norms, communication practices, recruitment expectations and local as well as global understanding of employability (Blackmore et al., 2017; Soltani & Tomlinson, 2024; Tang, 2023). This socialisation occurs through multiple

university-based and university-mediated experiences, including internships and work experience. This mechanism refers to the process through which graduates are being professionally socialized by university into professional norms, workplace expectations, disciplinary identities, and labour-market practices. This work takes place in the classroom and through different university tasks such as groupwork but also rough placements, internships, collaborative learning, career guidance, and exposure to professional communities, students become more familiar with what counts as legitimate professional behaviour. At the same time, this mechanism can also produce dis-embeddedness when the forms of professional identity and labour-market orientation developed through university prepare graduates for wider national or international labour markets rather than the local region.

The literature also highlights that professional socialisation is strongly shaped by geographical and institutional context. Rural and healthcare studies repeatedly show that **professional identities and retention intentions are shaped through prolonged exposure to local communities and regional practice environments**. Hafferty and Goldberg (1986) found that decentralised training pathways increased the likelihood that healthcare graduates would remain in underserved regions because students became socially and professionally embedded within those communities. Similar findings appear in studies of rural medical and dental education, where local placements, mentoring, and regional training pathways strengthened graduates' attachment to rural areas and increased long-term retention (Barber et al., 2024; Eley & Baker, 2006; Johnson et al., 2020; McGrail et al., 2018). These studies suggest that professional socialisation is not only occupational but also spatial, as graduates become embedded into particular regional labour markets, professional networks, and community relationships.

Research on international graduates further extends this mechanism by demonstrating that professional socialisation also involves learning implicit cultural and linguistic expectations within host-country labour markets. Soltani and Tomlinson (2024) argue that international students develop "employable selves" through language socialisation, workplace interaction, and exposure to professional norms. Others show that international graduates often need to learn how to navigate informal recruitment expectations, communication styles, networking practices, and organisational cultures that are rarely explicitly taught within formal curricula (Lin, 2025; Tang, 2023). Through internships, volunteering, extra-curricular participation, and employer engagement, graduates gradually learn how to position themselves as locally employable candidates.

Collectively, these studies suggest that professional socialisation within career ecosystems occurs primarily through the interaction between graduates and universities, where students gradually learn how to understand and perform employability within specific professional and regional contexts.

2. While capability formation concerns the development of resources, *capital mobilisation and conversion* refers to how graduates enact and translate resources into labour-market opportunities and career outcomes and how employers perceive and interpret these signals. Only when these signals are recognised by potential employers can the graduate transition into the labour market. More specifically, this mechanism shows how employers interpret readiness, what they regard as credible experience and "good fit". Thus, in our literature review we argue that employability and work readiness are not limited to 'things' that individuals can possess and have, but rather a process of co-construction. Many of the studies draw on Bourdieu's work and argue

that graduates' transition depends on a collection of employability capitals—human, social, cultural, identity, psychological, and agentic capital. For example, social capital is very important resource to land the first job but after entering the labour market, cultural and psychological capital may become more salient to better understand the unwritten rules, expectations and build cultural capital (Tang, 2023). In all stages, individuals need to build their agentic capital, that is to strategic mobilisation of different capitals depending on context to capitalise on opportunities and overcome constraints (Dai & Pham, 2024; Pham et al., 2024). Dai and Pham (2024) add that this process depends on agentic capital, that is, the strategic capacity to combine and deploy different capitals in ways that allow graduates to capitalise on opportunities and respond to constraints. From this perspective, these studies help to explain why apparently similar graduates do not generate similar outcomes: their trajectories depend not only on qualifications, but on how they interpret, present, and strategically use the capitals available to them (Cox et al., 2013; Dai & Pham, 2024; Pham et al., 2024; Tang, 2023). Here, we find that graduate employability becomes a performative act to signal and communicate their work readiness. While some studies show how certain students focus on attaining "good grades", others use this phase in their lives to build different capital (Ahlin, Andersson, & Thulin, 2018; Cox, Al Daoud, & Rudd, 2013; Greenbank, Hepworth, & Mercer, 2009; Naseem, 2019). The literature consistently shows the **degrees alone are not sufficient but acts more as initial entry signal for the recruitment process, especially in competitive and unfamiliar markets** (Pham et al., 2024). For example, studies on international graduates show that even when qualifications and technical skills are recognized, additional forms of capabilities such as local work experience, language proficiency and professional networks—become decisive in shaping outcomes (Lin, 2025; Tang, 2023). While many of the studies frame international graduates, especially those from the Global South, as a deficit and disadvantaged group, Tang (2023) highlights how this group can leverage their ethnic capital, and proactively build their human capital through internships, extra activities and certification, the social capital is built by having meaningful and career relevant relationships that can serve as referrals and mentorships, cultural and psychological capital are built through experiences, interaction and reflection. While these studies show that embeddedness in more advantaged families and strategic friendship offer certain individuals "double advantage", students and graduates who lack certain capitals may be able to use the opportunity during their time at the university and beyond in building their capital (Haltia et al., 2023; Naseem, 2019; Tang, 2023) but also how they construct and communicate the skills (Cox, Al Daoud, & Rudd, 2013).

3. The *(dis)institutional alignment and mediation mechanism* refers to the degree of alignment between universities and employers directly but also how other institutions can contribute to the misalignment between these two actors.

   The literature identifies structural tensions for universities between market competition and regional-development expectations (Addessi et al., 2025; Conzelmann et al., 2025). **Universities are increasingly expected to contribute to the local labour market, development, graduate retention, entrepreneurship and regional innovations systems, while simultaneously competing nationally and globally for students, ranking, funding and prestige** (Comunian, Gilmore, & Jacobi, 2015; Winterhager & Krücken, 2015). This tension becomes an issue especially for universities that are placed within peripheral or disadvantaged regions—that is lower income and productivity levels, weaker labour market and job remuneration. Addessi et al. (2025) show that universities in such regions may strategically offer programmes that are less aligned with the local economy in order to remain attractive to prospective students

and compete within broader higher education markets. At the same time, studies warn that **universities alone cannot compensate for weak regional economies**. These studies caution about universities becoming "oases in a desert" when local market and economic infrastructures are unable to absorb graduates (Fini et al., 2022, p. 985). Research on graduate mobility further shows that graduates are often drawn toward regions with stronger labour markets, better career opportunities, and higher absorptive capacity (Grimes et al., 2023; Iammarino & Marinelli, 2015; Muñoz-Fernández et al., 2023).

Related but differently, some studies have focused on the **potential mismatch and skills gap between university and employer expectations** (Jackson, Lower, & Rudman, 2016; Pavlin, 2014). These studies found that universities focus on knowledge and technical competencies, while employers look for more soft skills, including communication, critical thinking, teamwork and leadership (Jackson et al., 2016). Others have warned against an oversupply of graduates in a market that is not able to absorb them, which leads to unstable careers (Comunian, Gilmore, & Jacobi, 2015; Ege & Erdil, 2023; Muñoz-Fernández et al., 2023). Ege and Erdil (2023) further argue that such mismatch is dependent on labour market conditions, where high unemployment at entry will increase the mismatch while economic growth contribute to reduced mismatch. At the same time, studies show that **outward mobility from the region may be triggered by limited local internships, postgraduate opportunities, weak wages and constrained career progression** (Barber et al., 2024; Burch et al., 2011; Eley & Baker, 2006; Muñoz-Fernández et al., 2023). One of the important aspects for improving graduate retention in the region is through increased collaboration between university and local partners in the local recruitment, receptive local firms and broader economic opportunities (Dotti et al., 2013; Eley & Baker, 2006). These studies contribute to a better understanding by moving beyond graduate capabilities, employability and the mediating role of the university to shed light on the region's capacity in absorbing the graduates including quality of local firms, availability of relevant jobs, wage levels, professional progression and the openness of intuitions and employers to graduate talent (Addessi et al., 2025; Dotti et al., 2013; Fini et al., 2022).

However, when there is good alignment between university and employers, universities do not just play an important role in facilitating students' knowledge and skills acquisition, but also play a key mediating role between education and employment (Cameron, Farivar, & Coffey, 2019; Coffey, Farivar, & Cameron, 2021; Redline & Rosenbaum, 2010). The mediating role becomes **efficient when universities provide structured placements, career services, active employer engagement and curriculum design that is responsive to workplace realities** (Cameron et al., 2019; Coffey et al., 2021; Redline & Rosenbaum, 2010; Resele, Libkovska, & Balode, 2023). Studies show that graduates with labour-market relevant work experience transition more quickly into employment, whereas informal student work may delay transition (Teichert et al., 2024). Importantly, **institutional internships and placement were found to play an important role** in less reliance on students' own social capital, reducing the production of pre-existing social inequalities (Redline & Rosenbaum, 2010). However, this equalising effect depends heavily on the visibility, accessibility and quality of institutional support structures, including career services and placement coordination, as well as students' opportunities to engage with placement staff and receive ongoing labour-market guidance (Cameron et al.,

2019; Coffey et al., 2021; Jimenez Vivas & Menendez Alvarez-Hevia, 2017; Redline & Rosenbaum, 2010). Cameron et al. (2019) and Redline and Rosenbaum (2010) stress the **importance of interventions across the student lifecycle with employability skills embedded in the curriculum and supported through alumni networks and employer links**.

5. Conclusions for project STAY's research questions

5.1. Why do international students stay in the region after their studies, or not?

Research suggests that **graduates tend to be willing to stay when they experience a combined fit between career opportunity, employer recognition, social belonging, and future life prospects. Staying is not explained by one factor alone: Graduates are more likely to stay when the region offers relevant jobs, internships, employer contacts, career progression, community ties, and a sense that their skills are recognised locally.** Rural and healthcare studies show that retention is stronger when students are embedded early through local placements, regional training pathways, professional networks, and community exposure (Barber et al., 2024; Hafferty & Goldberg, 1986; Johnson et al., 2020; Kitchener, 2021; McGrail et al., 2018).

Graduates are more likely to leave when local labour markets are weak, when wages and career progression are limited, when postgraduate or specialised training is located elsewhere, or when graduates perceive stronger opportunities in other regions. This is shown in studies on Southern Italy, Calabria, Germany, the Netherlands, and New Zealand (Grimes et al., 2023; Iammarino & Marinelli, 2015; Muñoz-Fernández et al., 2023; Teichert et al., 2024; Venhorst & Cörvers, 2018).

For international students specifically, staying also depends on migration policy, visa conditions, employer sponsorship, language expectations, local work experience, and whether employers see them as "fitting" to the organisation (Blackmore et al., 2017; Blackmore & Rahimi, 2019; Lin, 2025; Shchegolev et al., 2016).

5.2. What characterises their decision-making process?

Prior research suggests that **the decision-making process is gradual, comparative, and conditional rather than a single decision made at graduation. Students compare several aspects at once: local job opportunities, alternative regions, home-country prospects, visa possibilities, family expectations, professional identity, lifestyle, belonging, and career progression**. Lin (2025), Tang (2023), Tran and Bui (2021), and Pham et al. (2024) show that international graduates actively interpret opportunities across host and home contexts and adjust their strategies over time.

The process can be understood in three interlinked stages:

1. *Imagining possible futures during study*
   Students begin forming ideas about whether they can see themselves working locally, returning home, moving elsewhere, or using the degree internationally (Oosterbeek & Webbink, 2011; Soltani & Tomlinson, 2024).

2. *Testing labour-market possibilities*
   Through internships, placements, part-time work, employer contact, and career services, students assess whether the local labour market is accessible to them (Cameron et al., 2019; Coffey et al., 2021; Redline & Rosenbaum, 2010; Teichert et al., 2024).
3. *Enactment of perceived fitness*
   Graduates decide whether staying offers a credible future. This includes whether employers recognise their qualifications, whether they can access suitable work, whether they feel socially and professionally included, and whether the region offers long-term development (Blackmore & Rahimi, 2019; Johnson et al., 2020; McGrail et al., 2018; Grimes et al., 2023).

To summarise, the decision is not simply "Do I like the region?" but rather: "Can I build a viable professional and personal future here?".

5.3. What obstacles and unmet desires do students experience?

The literature identifies several recurring obstacles. First, **students may struggle to access relevant local work experience, internships, and professional networks**. This is particularly important because degrees alone are rarely enough; local experience, networks, and knowledge of recruitment norms strongly shape employment outcomes (Tang, 2023; Tran & Bui, 2021; Teichert et al., 2024; Weiss et al., 2014). Second, **international graduates often face employer-side barriers**. Employers may value their qualifications but still exclude them because of visa status, language, lack of local experience, perceived cultural difference, or assumptions about "best fit" (Blackmore et al., 2017; Blackmore & Rahimi, 2019; Shchegolev et al., 2016). Third, **graduates may experience mismatch between their aspirations and the local labour market:** They may want qualified work, career progression, meaningful employment, or professional recognition, but find that available jobs are limited, poorly matched, or below their qualification level (Ege & Erdil, 2023; Iammarino & Marinelli, 2015; Muñoz-Fernández et al., 2023). Fourth, **unmet desires are not only economic:** Students often want **belonging, recognition, community, security, and a sense of future**. Rural and healthcare studies show that isolation, weak mentoring, partner/family constraints, limited professional support, and lack of community integration can push graduates away even when jobs exist (Higginbottom, 2011; Johnson et al., 2020; Kitchener, 2021; Wright et al., 2012).

Thus, from extant research we can conclude that g**raduate retention depends on whether students can move from being educated in the region to becoming professionally recognised, socially embedded, and future-oriented within the region**. **Students stay when universities, employers, and regional actors help them translate education into credible local career pathways.** They leave when their qualifications become more valuable elsewhere than in the region where they studied.

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