Research report

The International Talent Journey Unfolded

Enhancing and hindering factors of employability for international students at HEI's in four European countries

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Colophon

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Content

1 Introduction

Major educational reforms since the Bologna process (started in 1999) have expanded the European higher education systems. There have seen significant reforms in degree structures and quality assurance systems (such as the ECTS). These were made to increase the mobility of students, higher education staff, and researchers within the European Union (EU). The European Higher Education Area (EHEA) was established in 2010 to further facilitate this mobility and to make higher education in Europe more competitive in the global market (Eurostat, 2023).

Over the past decade, Europe has therefore seen an increased number of international students in tertiary education (1.46 million in 2020; 42.2 percent of these students were studying for a bachelor's degree), including universities of applied sciences, whose purpose it is to serve the local regions and provide them with an educated labour force (Eurostat, 2023). Attracting international students has been a policy priority in almost half of the member states, increasing the availability of degree programmes in English at Higher Education Institutes (HEIs) (European Commission, 2019). The subsequent retention of international graduates is considered important for economic growth, innovation, and knowledge creation in the host country (European Commission, 2019).

Although there are national policies in place to retain international students, and many of them wish to remain in their host country, few actually do (Kamm & Chaloff, 2022). Exact numbers are hard to give, since only for one third of the EU countries stay rates can be found, but empirical results indicate that for the EU, aggregate stay rates for stayers from all non-EU source countries lie within a range of 16.4 and 29.1 percent (Weisser, 2016). Stay rates are typically very low among students from other industrialised countries, and higher for international students from less developed or politically less stable countries (Weisser, 2016). Low stay rate is a great loss for the labour market of the host countries, as many are suffering from severe labour market shortages.

Most international students choose to study abroad to increase their employability (Jacobone & Moro, 2015; Keogh & Russel-Roberts, 2009). Employability can be described as a set of achievements – skills, understandings and personal attributes – that makes a person more likely to gain employment and be successful in their chosen occupation, which benefits themselves, the workforce, the community, and the economy. When a person is employable one can gain initial employment, maintain employment, and obtaining new employment in the future (Yorke, 2004).

Although international mobility increases the general employability of the international student, it is not easy for international students to secure local employment. International graduates seem to face significant more challenges when entering the local labour market in their host country, compared to their local peers with the same academic qualifications. To support international students in the employability and to retain them for the local labour market, the topic of employability of students has gotten more attention in the degree

programme of HEIs, with the aim to repair transition problems between higher education and the labour market.

However, many of the challenges faced by international graduates are beyond the scope of the HEIs. While companies have experienced (and still do) an increasing need for qualified workers, international degree students and graduates struggle to find their way into local companies despite the outspoken need. In particular small and medium-sized enterprises (SMEs), representing 99 percent of all businesses in the EU, do not always have the knowledge, skills and resources to recruit, train and retain international talent (Mihelic, 2020). Finally, national and regional policies and regulations of governments and third-sector organizations can hinder or enable the attraction and retention of international students for the local labour market. Thus, international students' employability and stay rates pose a multifaceted challenge in which multiple stakeholders and perspectives are involved.

In 2021 UCN (Denmark), Arcada (Finland), FH Münster (Germany), SEND (Italy) and Fontys (the Netherlands) joined forces and started the INTERLOCALITY project. The project was co-funded by EU under Erasmus+ KA2 partnership for cooperation 2022-2025. The objective of the INTERLOCALITY project was to contribute to the increase of local employability among international higher education degree students within the fields of engineering and business administration by developing a monitoring tool, interventions in the international 'talent journey' of the student and training modules for employers and staff of HEI and third-sector organizations.

The project mainly focused on international students in universities of applied sciences (UAS). UAS have a more direct link to the labour market through their applied research and teaching approaches, in comparison to research universities. UAS are tasked with equipping their students for a complex society that requires employees to possess a wide range of skills and capacities. This means that employability should be a priority to these UAS. The term UAS encompasses specific types of higher education institutions in different countries (such as the Fachhochschule in Germany, Austria and Switzerland, the Hogeschool in The Netherlands, the Haute École in France, or the Scuola Universitaria Professionale in Italy). In pursuit of comparability in higher education and international exchange through students, equivalent terms for educational institutions and degrees were established in Europe, with UAS delivering internationally acknowledged (professional) bachelor's and master's degrees (see European Higher Education Area). In comparison to regular universities, work placements and internships in (inter)national companies often form an integral part of UAS' degree programs.

Aim report

To get an understanding of the needs, experiences and opportunities of the international students at UAS, local employers, HEI staff and third-sector organizations regarding the retention of international students we conducted a qualitative study. The following research question was put central:

What are the enabling and hindering factors regarding the employability of international UAS graduates in Europe?

Regarding the enabling and hindering factors we make a distinction between macro (i.e. national), organizational (i.e. HEI and employers), and individual (i.e. international student) level factors of influence. The strength of this study is that we include the perspectives on these factors of multiple stakeholders: international students, employers, HEI staff and staff of third-sector organizations.

Structure

Chapter 2 starts with describing the context of the attraction and retention of international students in the four countries involved in the project: Denmark, Finland, Germany and the Netherlands. In this chapter we mainly identify hindering and enabling factors on a macro, national level.

In chapter 3 we zoom in on the concept of employability and explain how the concept is defined in the literature. We describe our employability process model, which is the conceptual basis for the presentation of the empirical findings in chapter 5.

Chapter 4 explains the data gathering in the qualitative, interview study. A total of 101 respondents of the four stakeholder groups from four countries - Denmark, Finland, Germany and the Netherlands – were involved in the project.

In chapter 5 the findings are presented. We use the perspectives of the four stakeholder groups to describe the journey of the international student in coming to their host country and studying and entering the local labour market.

In chapter 6 we present some concluding remarks regarding the hindering and enabling factors and offer some recommendations for further improvement of the employability of international students.

2 The International Student Journey in Denmark, Finland, Germany and the Netherlands. A comparative literature review

Introduction

International students' low stay rates pose a multifaceted challenge from economic perspectives. Firstly, the lack of retention results in a diminished return on investment for the substantial costs incurred in educating international students (Kamm & Chaloff, 2022). These costs encompass not only the education itself, but also resources allocated to supporting the diverse needs of an international student body, including language assistance, cultural integration programs, or career support services. Secondly, the low retention of international students exacerbates existing shortages on the local labour market (Kamm & Chaloff, 2022). International students acquire specialised knowledge during their studies, particularly in fields like technology and engineering. The departure of these skilled individuals deprives the local labour market of much-needed expertise, hindering innovation, and impeding the region's capacity to address evolving industry demands. So, a low retention rate implies that the region fails to capitalize its investment in educating international students, thereby undermining the economic benefits expected.

That is why there is a struggle in politics to find a compromise between the need to increase skilled immigration, for long-term social and economic sustainability, and short-term calls to reduce overall immigration in the light of nationalism and populism (Altbach & De Wit, 2023). Some European countries, confronted with the challenge of a low retention rate of international students, have responded by putting a halt to recruiting international students, while some other countries have implemented policy changes aimed at fostering a more welcoming and supportive environment for these individuals. Leveraging the full potential of international students and graduates could partly address the shortages on the local labour market.

Although EU-level policies like the Students and Researchers Directive (DIRECTIVE (EU) 2016/801) aim at attracting and retaining international students in the region, there are both significant similarities and differences between the member countries (European Commission, 2019). Therefore, we focus on a comparative in-depth study between four EU countries: Denmark, Finland, Germany, and the Netherlands. The four focus countries are all non-Anglophone and situated in the North of Europe but differ significantly. Germany and the Netherlands have long been popular destination countries for international students, while Denmark and especially Finland have not. Finland and Germany have national policies for significantly increasing the number of international students to address labour shortages, while Denmark and the Netherlands have recently imposed national restrictions on international student recruitment. The countries of origin of the international students also vary significantly between the four host countries.

Aim and structure chapter

The objective of this chapter is to describe the macro context of the attraction and retention of international students in the four countries involved in the project and to identify the enabling and hindering factors in the policies and activities of national governments and local HEIs.

In this chapter we make a distinction between the attraction of international students on the one hand and their intention to stay and stay rate on the other hand. For each country we describe the current situation regarding attraction and stay rates and we address the policies and activities of national governments and HEIs that may affect these matters.

Attraction of International Students in Denmark, Finland, Germany, and the Netherlands

The four focus countries in this literature review seem to be of interest for international students because of their high quality of living, safety, world-class universities with high quality education, a steady growth in the number of degree programmes in English, and good career prospects, with shortages on the local labour markets. Statistics from Danish Statistikbanken, Finnish StatFin, Statista and The Netherlands Association of Universities of Applied Sciences indicate the percentages in Table 1. When we look at the presence of international students in the four focus countries, we see large differences in the share of international students. Below we will discuss these differences and whether this is related to national policies.

Table 1 Number of international students in focus countries

	Denmark	Finland	Germany	The Netherlands
Number of international students (bachelor's and master's degree)	28,305 (in 2022)	22,792 (in 2021)	440,564 (in 2021)	115,068 (in 2021)
Percentage of international students on general student population	13% (in 2022)	7% (in 2021)	11% (in 2021)	23% (in 2021)
Number of international students at UAS	7,984 (in 2022)	54,411 (in 2022)	107,128 (in 2021)	34,901 (in 2021)
Percentage of international students on general UAS student population	11% (in 2022)	32% (in 2022)	10% (in 2021)	7% (in 2021)

Denmark

Denmark was once an attractive study destination, as international students paid no tuition fees, and many EU/EEA students received Danish state educational grants (SU) if they worked 10–12 hours per week for 10 weeks to qualify as migrant workers. The number of English-

taught students grew from 7,500 in 2004 to around 22,100 in 2016 (Myklebust, 2018). By 2017, 11 percent of tertiary students in Denmark were international, with 83 percent from Europe, compared to 42 percent in other European countries (OECD, 2019).

In 2018, the Danish government cut admissions to English-language programs by 27.8 percent (1,200 study places) due to concerns that many international students left Denmark after graduation, making state investment in their education costly (Danes Worldwide, 2022). In 2021, further reductions were made, and an A-level qualification in Danish was introduced as an entry requirement. Only 650 English-language study places were exempted (Danish Ministry of Higher Education and Science, 2021). The cuts primarily affected UAS bachelor programs, where 72 percent of students study in English, but only 21 percent stay in Denmark for work (Rehdol, 2021). These measures significantly reduced international student numbers.

However, in late 2023, the Danish government made a shift. Following complaints from employers about a shortage of highly educated professionals, the minister of Education introduced reforms allowing universities to offer 1,100 new English-taught master's places annually until 2029, increasing to 2,500 per year afterward (Packer, 2023). The new policy focuses on attracting international students to fields with the greatest labor shortages.

Finland

Finland has become increasingly popular among international students. In 2017, only 9,601 international students (7% of the student population) were pursuing a bachelor's degree at a university of applied sciences (UAS) (*ammattikorkeakoulu* or *yrkeshögskolan*) (Finnish National Agency for Education, 2018). However, numbers have risen significantly since 2022. By October 2022, over 7,000 new students from outside the EU had been granted residence permits, a 45% increase from the same period in 2021 (Finnish Immigration Service, 2022). In 2023, international applications for higher education programs doubled, with nearly 62,000 applicants—over 50,000 from outside the EU/EEA (Clausnitzer, 2023). The top countries of origin include Russia, China, Bangladesh, India, and Vietnam (Erudera, 2022; Clausnitzer, 2023). Business, administration, and law are the most popular UAS fields (Finnish National Agency for Education, 2018).

A major factor behind this surge is a 2022 political reform that simplified the relocation process for international students. Previously, residence permits were issued for two-year intervals, but now they remain valid for the entire degree program. Graduates can also apply for a two-year job-seeker permit, making it easier to transition into the Finnish job market (Eurydice, 2023). This reform sends a clear message that international students are welcome to stay and work in Finland (Finnish Immigration Service, 2022).

Additionally, Finland has actively promoted itself as a study destination. A key initiative is the International UAS Exam, introduced in 2022, which streamlines applications by allowing candidates to take a single digital entrance exam, valid for multiple programs. This has simplified the admission process and contributed to the rise in international student applications (Eurydice, 2023).

Germany

Germany is a top destination for international students: it ranks in the top five countries in the world by the number of international students (Erudera, 2024). International student numbers in the country have experienced approximately a 30.9 percent increase in a matter of five years, from 2014 to 2019, and an increase of 37 percent from 2014 to 2022 (The Economic Times, 2023). This is due to the government approval of tuition-free education in Germany in 2014. According to a study, another reason why the number of international students in Germany is increasing is the growth in the number of programs in English, in addition to the mixed method of teaching of in-person and online learning (Erudera, 2024). Germany's robust economy, strong job market further and good reputation in the field of engineering contribute to its attractiveness for international students (ICEF Monitor, 2023).

The total number of international students studying in 2022 in Germany was 440,564, accounting for eleven percent of all students. 107,128 international students were studying at a UAS (*Hochfachschule*), of which a total of 64,300 were pursuing a bachelor's degree, and 36,740 a master's degree (Erudera, 2024). Most international students at German universities are from China, India, Syria, Russia, Austria, Turkey, Iran, Italy, France, Cameron, Egypt, and Pakistan (DAAD & DZHW, 2023). The most preferred study field at UAS is Engineering, followed by Law, Economics and Social Sciences (DAAD & DZHW, 2023).

The Netherlands

The number of international students in Dutch higher education has grown faster than the number of Dutch students over the past 15 years. In 2021, around 115,000 foreign students studied in the Netherlands—3.5 times more than in 2005 (ICEF Monitor, 2023). This growth is driven by the availability of English-taught programs; the Netherlands offers the widest range of such programs in Europe (NOS op 3, 2016). Most universities and universities of applied sciences (UAS) have embraced internationalization to prepare students for an intercultural society and global job market (Nuffic, 2019).

In the 2021-2022 academic year, 23 percent of all students were international, including 40 percent of first-year students (over 42,000). About 75 percent came from the EU, mainly Germany and Italy, though the number of German students has declined. Outside the EU, India and China were the main sending countries. Since 2017/2018, more international students have enrolled in bachelor's programs than master's. Most study at research universities, while only seven percent of UAS students come from abroad. Less than 10 percent of UAS programs are fully in English. Popular fields among international UAS students include law, administration, business, arts, and languages (CBS, 2022).

The rising number of international students has sparked political debate due to high dropout rates (17 percent in the first year), increased workload for staff, reduced access for Dutch students to some programs, and a severe housing shortage. In 2022, universities advised foreign students to secure housing before coming (Eertink, 2022). In early 2023, the Dutch Minister of Education proposed measures to manage student influx, including mandatory

Dutch language courses and limits on English-taught program spots (Dutch government, 2023).

Intentions to Stay, Stay Rates and Influencing Factors

As the number of international students, the retention rates in the four focus countries vary significantly (see Table 2). And when the international students are asked about their intentions to stay in these host countries, the numbers for intended retention are different from the actual retention rates (see Table 2). There are multiple factors influencing the intentions to stay and the actual stay rate in the host country after graduation. These enabling and hindering factors are discussed per focus country.

Table 2 Intention to stay and stay rates

	Denmark	Finland	Germany	The Netherlands
Intention to stay to work	64% (in 2020)	52% (in 2021)	61% (in 2022)	57% (in 2022)
Stay rate	21% after two years (in 2021)	66% after three years (in 2021)	48% after five years / 38% after ten years (in 2022)	50% after one year/ 25% after five years (in 2021)

Denmark

Denmark has successfully attracted international students and aims to retain them after graduation to address labor shortages. To support this, the Danish government offers a post-graduation work permit, allowing non-EU students to seek employment for six months, with extensions up to three years (Danish Immigration Service, 2023). Many international students intend to stay: the International Survey 2020 found that 43% want to live in Denmark, 64% plan to work there, and only 3% intend to return home (Macaraig, 2020).

Several factors contribute to high retention rates. Denmark's strong work-life balance, competitive salaries, and professional development opportunities attract international graduates (Danish Ministry of Higher Education and Science, 2019). Industry-academia collaborations, internships, and research programs further enhance employability (Danish Ministry of Immigration and Integration, 2015). Personal factors also influence the decision to stay, such as having a Danish partner, older age, non-Nordic origin, prior work experience in Denmark, and a background in technical or health studies (Danish Ministry of Immigration and Integration, 2015). Highly educated internationals in Denmark often work in large companies, as small and medium-sized enterprises (SMEs) tend to employ fewer foreigners (Oxford Research, 2020).

Despite these advantages, actual retention rates remain low. Only one in five UAS graduates from English-taught programs still work in Denmark two years after graduation (Ministry of Higher Education and Science, 2021). Statistics Denmark (2018) found that 26% of

international students leave within three months of graduation, and 38% within 21 months (Myklebust, 2018). The biggest challenge is the language barrier—while many programs are in English, Danish fluency is often required in the job market. Limited job opportunities, competition from domestic graduates, lack of access to company materials in English, and unfamiliarity with Danish work culture also hinder employment prospects (Christensen & Gulieva, 2017).

Social integration is another challenge. Many internationals struggle to build local networks (Ministry of Higher Education and Science, 2019). Denmark ranks as the worst country for making local friends, with 66% of internationals finding it difficult. Additionally, 40% consider Danes unfriendly toward foreigners, and 38% do not feel at home in Danish culture (Von Plato & Zeeck, 2022).

Nevertheless, many graduates would return under better circumstances. A survey by the Danish Ministry of Immigration and Integration (2015) found that 88% of those who left Denmark would come back if offered a relevant job. This underscores the need for better job opportunities aligned with international graduates' qualifications.

Finland

Finland has recently focused on improving international graduates' stay rates. Policies now extend residence permits for job-seeking graduates up to two years, simplify work permits, and promote entrepreneurship (Finnish Immigration Service, no date). About two-thirds of international graduates remain in Finland three years after graduation (Mathies & Karhunen, 2021). Strong academia-industry ties provide students with real-world projects and networking opportunities. Policies promoting societal openness, economic growth, job creation, and labour market inclusiveness positively impact their decision to stay. Other influential factors include exposure to Finnish working life during studies, faculty support, networking opportunities, and social benefits like childcare (Juusola et al., 2021). To further improve retention, Finland launched the Talent Boost program to align labour market needs with international graduates' skills (Finnish Ministry of Labour and Economy, 2020).

The Finnish education system's strong reputation and career opportunities drive international students to study in Finland (Franck, 2021). However, the Eurostudent survey (2021) found that only half of the international students intend to stay post-graduation. UAS students (52%) show slightly higher retention than research university graduates (47%), indicating differing career paths (Juusola et al., 2021).

About a third of the international students (32 percent) consider their career advancement opportunities in Finland as “weak”. Many seek job search training, Finnish company connections, and language courses. Language barriers, such as job postings in Finnish and limited free language courses, further hinder employability (Andersson et al., 2020). Students want better language integration into studies and workplace learning opportunities.

Social integration is another challenge. Nearly half of international knowledge workers and 43% of job-seeking international students struggle to build local networks and friendships (Erudera, 2023). Finland's small job market, especially outside major cities, limits employment. Employers often prefer local hires and lack the resources to evaluate international qualifications, particularly in SMEs (Andersson et al., 2020).

Several factors increase the likelihood of staying. Students who receive career support, gain work experience, and establish social connections during studies are more inclined to remain (Franck, 2021). Family ties and personal relationships also play a role. Additionally, international students from universities outside major cities show a higher tendency to stay, suggesting that regional job opportunities and support networks influence retention (Franck, 2021). Numbers of skilled internationals working in Finland were not found.

Germany

A new labour strategy was introduced by the German government in 2022, anticipating a shortage of about 240,000 skilled workers by 2026 (ICEF Monitor, 2023). Germany actively seeks to attract international students and retain them after graduation by offering a post-study work visa of up to 18 months, providing ample time for international graduates to secure employment (Kelmendi, 2024). Germany's dual education programmes, apprenticeships, and industry collaborations offer hands-on experience and connections with potential employers.

The strong German economy and demand for skilled professionals create opportunities for international graduates to find suitable employment, which should make the country attractive for staying after graduation. Many international students express a high intention to stay in Germany: about six in ten surveyed international students either "definitely" wanted to remain in Germany after studies (29 percent) or were considering it (32 percent) (ICEF Monitor, 2023). Interest in staying is higher among students from less prosperous or stable countries and much less pronounced among Western European students. The actual retention rates are lower. The German Federal Statistical Office (Destatis) reported in 2022 that more than one third of the internationals who took up studies in Germany between 2006 and 2011 stayed in Germany for a longer period. After five years, 48 percent still lived in Germany, and 38 percent after ten years. Only 54 percent of non-EU students succeeding in finding a job and thirty percent remaining unemployed even a year after graduation, according to the Expert Council of German Foundations for Integration and Migration (2017).

The complexity of life situations and the influence of transnational social ties play a significant role in migration and career strategies for international students in Germany. Social factors as personal relationships and questions of social responsibility towards family members can affect the decision to stay or leave Germany after graduation (Glorius, 2016). Factors like having a partner in Germany, German language skills, good prospects on the labour market, desire for international work experience, quality of life, educational opportunities, and having a background in STEM subjects positively impact the decision to stay (Hoffmeyer-Zlotnik & Grote, 2019). An early decision to stay, as well as active social integration through volunteering, also pave the way for international students to remain in the country.

On the other hand, dropouts (with the dropout rate for international students in bachelor's and master's degrees being significantly higher than for German students, according to the ICEF Monitor of 2023) and graduates with above-average degrees may be more likely to leave Germany (Expert Council of German Foundations for Integration and Migration, 2017). Language proficiency in German remains a significant barrier for international students seeking employment. While many degree programmes are offered in English, fluency in German is often required for a wider range of job opportunities. The competitive job market and the need for recognition of foreign qualifications also pose challenges for international graduates. Insufficient professional experience, not having a master's degree, and the non-recognition of work experience from abroad are some of the common challenges reported by international graduates (Expert Council of German Foundations for Integration and Migration, 2017). Additionally, administrative burdens associated with residence permits and nationality, poor working conditions, and the difficulty of balancing family and work obligations further impact their prospects (Kercher et al., 2018).

Interestingly, there are differences in intentions to stay between federal states, with higher rates in regions like Baden-Württemberg, Bavaria, Berlin, Hamburg, and Hesse (Hoffmeyer-Zlotnik & Grote, 2019). Statistics about highly educated internationals working in German SME were not found.

The Netherlands

The Netherlands has implemented policies to retain international talent, including the orientation year visa, which allows non-EU graduates to stay for one year to seek employment or start a business (Dutch Immigration and Naturalisation Service, 2024). This initiative helps facilitate the transition from study to work and enhances job market integration.

International student numbers have risen significantly. In the 2021/2022 academic year, over 42,000 international students enrolled in Dutch universities and UAS (CBS, 2022). More than half (57%) expressed an intention to remain in the Netherlands after their studies (Nuffic, 2021). The Dutch education system emphasizes practical skills, critical thinking, and problem-solving, making graduates well-prepared for the labor market. Collaboration between universities and industries through internships, guest lectures, and research projects further supports professional integration. Additionally, the Netherlands' entrepreneurial ecosystem offers opportunities for international students to engage in start-ups (Annual International Student Survey, 2022).

Several factors influence stay rates. Non-EEA students are more likely to remain (59%) compared to EEA students (45%) (Nuffic, 2021). Data shows that around 50% of 2019-2020 graduates were still in the Netherlands a year later, dropping to 25% after five years (Nuffic, 2021). Historically, departure rates are highest in the first year post-graduation, with half leaving. However, the longer graduates stay, the lower the likelihood of departure (Nuffic, 2020).

Graduates from fields with labor shortages tend to remain. Technical degree graduates show high retention rates (41% for research university graduates, 26% for UAS graduates), as do

those in education, healthcare, and natural sciences. Research university graduates generally stay longer than UAS graduates. Art school graduates, part of UAS, also have high stay rates (Nuffic, 2020).

Career prospects and the high standard of living positively influence retention. However, challenges such as the housing market and limited Dutch language skills negatively impact stay rates (Nuffic, 2020). Despite concerns about job opportunities, international graduates' labor participation is comparable to that of Dutch workers.

International graduates often work for globally active businesses. More than a quarter are employed by foreign-owned companies in the Netherlands. They are also more likely to work for firms with significant import/export operations (Statistics Netherlands, 2013). While international graduates are slightly less likely to work for SMEs, they are not overrepresented in multinational enterprises (Dutch Environmental Assessment Agency, 2014).

The distribution of international graduates across the Netherlands is uneven. Most work in urban agglomerations, with Amsterdam as the primary hub, followed by other Randstad cities (Statistics Netherlands, 2013). Urban preferences stem from economic density, company locations, and proximity to Schiphol Airport. This indicates that policy aimed at retaining international graduates should therefore also include spatial elements in its strategy.

Conclusion

The aim of the chapter was to describe the macro context of the attraction and retention of international students in the four countries involved in the project and to identify the enabling and hindering factors in the policies and activities of national governments and local HEIs. Based on this literature review, we can conclude that government policies play a key role, but higher education institutions and employers also contribute significantly. International students choose these countries because of their high quality of life, safety, excellent educational offerings—including many English-taught programs—and strong career prospects, driven in part by local labour market demands such as shortages. Political decisions largely determine the influx of international students, with each country having its own policies and specific challenges affecting student presence.

Retention after graduation, however, depends on a combination of professional and personal factors. Governments attempt to influence post-graduation plans by easing access to post-study visas, work permits, and housing permits. In addition, Finland has introduced the Talent Boost program to better align graduates with labour market needs. Despite these initiatives, the actual number of international graduates who remain in the host country falls short of their initial intentions. The most significant barrier is the language hurdle, which limits professional opportunities since many companies offer jobs and key documents exclusively in the local language. Moreover, limited social integration and networks outside the host country hinder the job search, while administrative burdens for non-Europeans add another layer of difficulty.

3 The employability process model

Introduction

Recent literature presents numerous models and frameworks on employability, particularly within the educational context. This diversity alone can pose challenges for HEI staff and others in deciding which approach might be most suitable for their needs. Furthermore, information on employability is somewhat contradictory: while some researchers claim that their model is universally applicable (Rufai et al., 2015), others argue that there is no one-size-fits-all model (Behle, 2020; Kenworthy et al., 2014; Kraus, 2006). Additionally, in 2012, the Higher Education Academy highlighted the need for a "central, consistent model for employability" to be developed (The Higher Education Academy, 2012). In the field of Human Resource Management there is also a large community of scholars doing research on the topic of employability, yet from the perspective of the worker and employer. The models and theories from both fields are seldomly connected. Moreover, employability models are often not focused on the specific circumstances and issues regarding the employability of international students.

The objective of this chapter is to develop a conceptual model that helps to explain the employability of international students and the factors and processes that are relevant in strengthening the employability of international students. This comprehensive model will be based on academic employability literature from both the educational science and the HR field, complemented with expertise on the specific issues international students experience in their talent journey.

The concept of employability

Employability can be defined as a set of achievements – skills, understandings and personal attributes – that makes a person more likely to gain employment and be successful in their chosen occupation, which benefits themselves, the workforce, the community, and the economy. When a person is employable one can gain initial employment, maintain employment, and obtaining new employment in the future (Yorke, 2004).

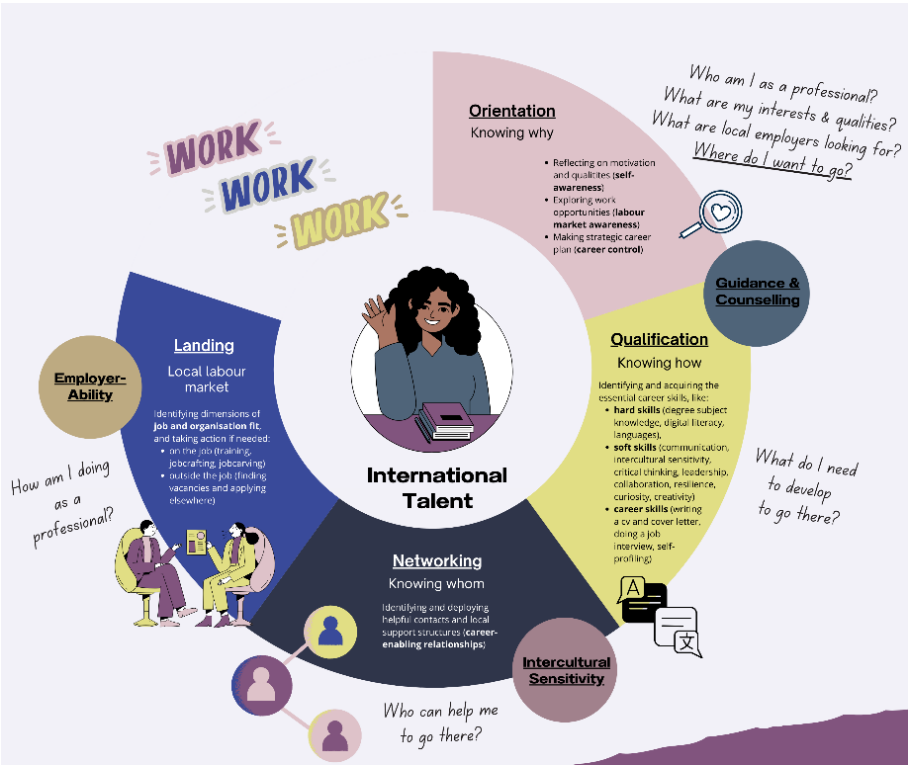
Employability is the result of a complex integration of personal factors and structural or contextual factors, as well as their interactions over time, all of which affect the outcome. In this context, personal factors are tied to the person (age, gender, cultural background, competences, etc.), whereas structural or contextual factors can play a role at the level of the job, the organisation, or the society (availability of jobs, etc.) (Van der Heijde & Van der Heijden, 2006). We integrated these factors of employability into one comprehensive overview.

In the INTERLOCALITY project we approach the strengthening of the employability of international students as a process, as different steps or stages in the talent journey of international students can be identified: from the orientation to a study abroad, to starting the educational program and doing internships to graduating and entering of the local labour

market. We also have adopted an inclusive approach of talent, which means that we assume that all students and employees have valuable qualities and talents that can be productively applied within the educational or work context. The aim is to create the best fit and opportunity for students and employees to use their talents, to bring out the best in everyone, allowing everyone to realize their full professional potential (Meyers, 2016).

Individual characteristics and competencies determine professional opportunities on the local labour market. De Fillippi and Arthur (1994) and Inkson and Arthur (2001) use the term 'career capital'. We distinguish three dimensions of this career capital: orientation, qualification, and networking. Related to those dimensions Akkermans, Brenninkmeijer, Huibers and Blonk (2012) identified six career competences: reflection on motivation, reflection on qualities, networking, self-profiling, work exploration, and career control. As figure 1 shows, we turned the dimensions of career capital into phases corresponding to different steps international students undertake to develop and strengthen their employability. We also included a fourth phase: landing. In this phase the international student or alumnus is working in a (side)job or internship, and a good fit with the job or organization is crucial. This fourth phase completes the process and creates a circular employability journey. After all, both people and jobs change, therefore the process can start all over again in the case of wanting to find a better fitting job.

Figure 1. Circular Employability Chart - Visualization of the International Talent Journey (based on the employability process model)



Orientation phase: Where do I want to go?

In the orientation phase, motivational characteristics are central. De Fillippi and Arthur (1994) and Inkson and Arthur (2001) speak of *knowing-why*. They mainly refer to the reflection on oneself: on the interests and motivation that people give to their careers, and the fit with the unique qualities and talents the person has. Knowing-why involves themes of individual motivation, the construction of personal meaning and identification (who am I as a professional?). As such, this self-awareness through self-reflection (Kuijpers, 2000) or reflection on motivation (Akkermans et al., 2012) incorporates traditional career development concerns about individual uniqueness, reflected in constructs such as personality, aptitudes, values and interests (what are my interest and qualities?) (Kuijpers, 2000). Knowing-why further incorporates attitudes to family, lifestyle, and other non-work factors that affect career choice, adaptability and commitment. These career expectations or preferences can influence a person's labour market opportunities (Parker & Arthur, 2004).

It is also important to reflect on the outside world. We therefore also consider labour market awareness through work exploration (Akkermans et al, 2012) as an important career competency of knowing-why. By labour market knowledge we mean knowledge about career options, possible employers, available jobs, the skills demanded by employers for those jobs, and the channels to look for jobs (what are local employers looking for?). Information acquisition can take place on the different levels: information about work on the labour market, in a specific organisation or on work activities. It handles content and development of work (Meijers & Wijers, 1997; Reynaert & Spijkerman, 1995). So, work exploration is the competency to explore the labour market and specific work environment for suitable work (activities) and mobility prospect, in accordance with the capacities and motivation of a person (Kuijpers, 2000). This is especially important for international students and alumni since they are less informed about the local labour market in their host country by default than their local peers.

In addition, also career control (Akkermans et al., 2012) is part of the orientation phase. Career control is the competency to plan and act upon one's own learning and working process (Kuijpers, 2000). Taking into consideration self-awareness and labour market awareness, it becomes possible to formulate a strategic career plan (where do I want to go?). This career planning is often valued as being essential; setting long and short-term goals, determine activities to achieve one's goals and evaluate the results (Reynaert & Spijkerman, 1995). Besides career planning, control of the learning process is of importance for career control (Onstenk, 1998). Activities of learning process control are for example: define and analyse learning questions, evaluate and obtain appropriate training and development activities. Thirdly control of one's work process seems to influence career development. This indicates activities that affect the content of work in a way that work makes a better fit with one's capacities and motivation. Part of control of the work process is the balance of work and private life (De Fillippi & Arthur, 1996; Meijers, 1995).

Qualification phase: What do I need to develop to go there?

In the qualification phase, the ability or knowing-how is central (De Fillippi & Arthur, 1994; Inkson & Arthur, 2001). Knowing-how reflects an individual's repertoire of job-related skills and expertise. These may include formal qualifications and training, hard skills like digital literacy and proficiency in languages, as well as informal and tacit knowledge that emerges from education and work experience (soft skills). Soft skills are attributes that are difficult to both master and measure, such as the capacity to communicate, problem solving, teamwork skills, leadership skills, time-management skills, critical thinking, curiosity, creativity and resilience (Succi & Canovi, 2020). Especially important for international students and alumni is the soft skill intercultural sensitivity, defined as a deeper understanding and appreciation of cross-cultural differences, such as differences in communication, reaction, performance, interaction and teamwork, but also beliefs, values, attitudes, perceptions and expectations (Mahoney & Schamber, 2004). Through reflection on qualities, defined as reflecting on strengths, shortcomings, and skills regarding one's personal career (Akkermans, et al., 2012), it becomes clear which skills still need to be developed to increase employability (what do I need to develop to get my ideal job?).

Thijssen (2001) distinguishes three types of competencies: professional competencies, which are necessary to deal with critical problems within a given professional domain, learning competencies, which are important to quickly acquire new labour qualifications, and career competencies. These career competencies, also known as self-profiling (Akkermans et al., 2012), are important for acquiring an adequate employment position. They can be defined as presenting and communicating personal knowledge, abilities and skills to the internal and external labour market. One should be able to make clear to relevant others what one wants careerwise and what one is able to fulfil (Kuijpers, 2000). This can take the form of writing a CV and cover letter but also presenting oneself during a job interview or networking event or using LinkedIn and other social media for professional purposes.

Networking phase: Who can help me to go there?

In the networking phase, the individual's social capital is central (Bourdieu, 1985). Social capital is crucial for the development of labour market knowledge. De Fillippi and Arthur (1994) and Inkson and Arthur (2001) therefore attach great importance to this knowing-whom. Granovetter (1988) emphasizes that employers obtain an important part of their information about prospective employees from people who know the candidates. Knowing-whom involves a person's work relationships and includes all professional connections that can support his or her career, like (former)employers or colleagues. Knowing-whom also incorporates broader contacts with family, friends, fellow-alumni, and professional and social acquaintances (who can help me get my ideal job?). Any of these contacts can enhance a career by providing support, transmitting reputation or affording access to information (Parker & Arthur, 2004). So, networking can be defined as the awareness of the presence and professional value of an individual network, and the ability to expand this network for career-related purposes (Akkermans et al., 2012). This phase of identifying and deploying career-enabling relationships

is especially important for international students and alumni since they have less social capital in their host country by default.

Landing phase: How am I doing as a professional?

The employability process culminates in the fourth phase, the landing, meaning: finding a fitting job on the local labour market. In this phase, it is important to reflect on the fit of the job and the organisation a person works in, as every person brings in their own personality, motivation, values, attitudes, and set of skills to work (how am I doing as a professional?). The person-organisation fit refers to the degree to which a person's personality, values, goals, and other characteristics match those of the organisation (Kristof, 1996). Person-job fit is the degree to which a person's knowledge, skills, abilities, and other characteristics match the job demands (Kristof-Brown et al., 2005). A bad fit between the person and the job or organisation may result in dissatisfaction and an intention to leave. On the other hand, when people fit into their job and organisation, they tend to be more satisfied with their jobs, more committed to their employers, are more influential in their organisation, and remain longer in the organisation (Anderson, et. al., 2008; Kristof-Brown, et. al., 2005). So, person-job fit and person-organisation fit are positively related to job satisfaction and commitment.

If the fit is not optimal, one can take action on the job (by applying job crafting, job carving or additional training) or outside the job (finding vacancies and applying elsewhere for a better fitting job and organisation). In the latter case, the employability process starts again, by orientating oneself on the labour market, identifying the qualifications and skills needed for a new job, and identifying and deploying social capital to get a new job.

4 Methodology

Introduction

This report is focused on the context of international students studying at a UAS in a program on engineering and business administration. By 'international students', we mean people who have left their country of origin and moved to another country for the purpose of study. The country of origin may be the country where the student has completed their upper secondary education, or the country in which the student has resided prior to moving for studies abroad. We choose to focus on degree-mobile students at UAS and their graduates at SMEs, as they are under-represented: most previous research focuses mainly on international students and graduates from traditional research universities, as well as on multinational enterprises (MNEs). The reason for our focus on SMEs is that they make up the largest part of the European labour market (99 percent). The motive for our focus on degree-mobile students instead of credit-mobile students (also known as temporary or exchange students) is the long-term stay of the first group in the host country, with in some cases an initial intention to stay for work after graduation, even though credit mobility is the prevalent form of international student mobility in Europe (European Commission, 2023).

Participants

A purposive sample of stakeholders from every country (see table 3) was chosen, because these data sources would be likely to produce, rich, relevant and illuminating understandings (Kuzel, 1999). In addition, this form of sampling responds to the idea that students, UAS, employers and third-sector organizations dedicated to the employability of internationals all benefit from participating in initiatives concerned with employability (Cox & King, 2006). In total 49 male and 52 female interviewees participated in this research. Student and third-sector organization participants were evenly gender balanced, but of the local employers, 19 were male and 18 females, and of the UAS employees, 5 were male and 9 females. The aim was to evenly compose the stakeholder groups for every participating country, but those approached to participate did not always respond positively. This explains the slight diversity in number of respondents within each stakeholder group.

The international students were in their final year of their bachelor's degree in engineering or international business or recently graduated (one alumnus per country). Employers were HR managers or directors from private enterprises in the Engineering or International Business sector near the UAS. The UAS employees were involved in the employability of international students (head of International Office, career counsellor, lecturers). Participants from the third-sector organizations were also involved in the employability of internationals in the region of the UAS (on behalf of a municipality, economic development agency, employment agency).

A limitation of the research is that respondents participated voluntarily. The primary motivation cited by individuals for participating in the study was their interest in the topic. Consequently, selecting participants based on this criterion could have resulted in a greater level of

enthusiasm for the topic or potentially higher dissatisfaction with the current situation compared to a neutral sample where participation was mandatory. Also, considering the sample size and four-country focus, this report cannot claim the responses can be generalized to all international students worldwide.

Table 3 Overview of interviewees

	Denmark	Finland	Germany	The Netherlands
International students & alumni	8	10	10	10
Employers	7	13	9	8
UAS staff	3	4	4	3
Third-sector staff	3	3	3	3

Procedure

To recruit respondents, e-mails were sent to relevant employees of the four participating UAS, to international students via their UAS (and more specifically via the International Office, their lecturers or other UAS employees), to local employers based on the existing network of the UAS or via the local chamber of commerce, and to local third-sector organizations based on the existing network of the UAS. All participants received information sheets and consent forms prior to their participation. The research committee of one of the involved UAS approved the ethical strategy for the study, emphasizing confidentiality, voluntary participation, avoidance of harm to participants, and informing them of their right to withdraw from the study at any point.

Data were gathered from participants through one-hour semi-structured interviews conducted via MSTeams, using open-ended questions (Strauss & Corbin, 1994). Conducting interviews allowed the researchers to delve into participants' perspectives and experiences (Patton, 2002), utilizing an interview guide to ensure key areas of inquiry were covered while allowing flexibility to explore, clarify, or probe as necessary (Patton, 2002). After a short introduction of the INTERLOCALITY project the interviews with the students and alumni were focused on identifying their experiences regarding hindering and enabling factors while coming to the host country, the start and continuation of the educational program and entering the local labour market. With employers we focused on the hiring process of international students and the interaction with HEIs and support offered by third-sector organizations. The interviews with staff of HEI and third-sector organizations aimed to discuss the employability of international students and the support offered to students and employers. Open-ended questions were chosen to minimize researcher influence and encourage unanticipated responses Foddy, 1999). During the interviews, the participants were encouraged to talk about concrete cases and incidents based on anonymity, rather than in generalities. This allowed to describe a complex social phenomenon from the perspective of the people affected (Malterud, 2011).

The interviews were transcribed by the researchers who did the interviewing and coded by the research coordinator and her team of researchers from Fontys using ATLAS.ti and a

predefined code book based on the different aspects within the interview topics list. Once the different codes within the different subfields (e.g. side-job, internship, hiring process, support received) were organized and interpreted, the differences between the subfields were examined and interpreted from the context. During the last phase of the analysis, general patterns and themes based on the theoretical framework used were distinguished by the researcher coordinator from Fontys. These patterns were compared to the existing literature on the topic.

To address the potential limitations of relying solely on one researcher's perspective for data analysis, the other researchers involved in the study were invited to review the initial research findings. This approach allowed for multiple perspectives to inform the interpretation of the data (Goulding, 2006; Leininger, 1994).

5 Findings

Introduction

The objective of this chapter is to describe the process though which international students strengthen their employability and to identify enabling and hindering factors in the employability of international students. We start with answering who is responsible for the employability of international students. Subsequently we dive into the four stages of the employability process model (see chapter 3): orientation, qualification, networking and landing. Each section presents the perspectives and experiences of international students, HEI staff, employers and staff of third-sector organizations separately, and wraps up with a short overview of the lessons learned . We focus on the general findings, and only present country specific information when they indicate substantial differences from the general pattern.

Employability: Responsibility and making employability happen

Although employability is an individual characteristic, developing and strengthening employability is a shared responsibility. In the interviews we posed the question who is in the lead to take charge?

◆ **International students** predominantly place the responsibility for their employability on their Higher Education Institutions (HEIs), specifically University of Applied Sciences (UAS). The evidence from the interviews across Denmark, Finland, and the Netherlands reveals a consistent expectation that institutions should actively facilitate both internship and job placements through direct industry connections. International students anticipate comprehensive support from their institutions, including assistance with developing essential employment-related competencies such as local language proficiency and job application skills. For example, by providing language courses or by providing guidance on the local work culture. They particularly emphasize the institution's role in establishing professional networks, viewing this as a crucial yet under addressed aspect of employability support. Rather than assuming personal responsibility for these aspects of their career development, international students express frustration when institutions fail to provide what they consider adequate employment assistance for example in finding a suitable internship, suggesting a significant dependence on institutional support for their transition into the labour market.

> ***"I would like more direct support. So, like the UAS being in contact with companies and getting you in touch with people that work at places that have vacancies. Yeah, I think that would be the easiest way for international students to get a job."***
>
> *International student*

◆ **Universities of Applied Sciences** perceive a significant disconnect between international students' expectations and the realities of local employment markets, particularly regarding personal initiative and cultural norms. The perspective from UAS staff indicates that international students often underestimate the level of personal responsibility required in the job search process, exemplified for example by their frustration with German practices such as extensive advance planning, numerous applications, and the importance of academic performance. While UAS staff acknowledge the unique challenges faced by international students in integrating into local labour markets, their support mechanisms appear to be inadequately structured and professionally unequipped at an institutional level. The interviews reveal that assistance often relies on individual staff members' voluntary efforts, undertaken without formal recognition or resources from management, suggesting a systemic gap between the identified needs of international students and the institutional capacity or willingness to address these needs comprehensively.

> ***"And then their language skills are not so good, their grades are not so good. But in Germany grades are very important. So you don't get an internship if you have bad grades."***
>
> *UAS staff member*

◆ **Employers** advocate for a balanced approach to international graduate employability, emphasizing a shared responsibility between educational institutions and students while placing particular emphasis on student initiative. The employer perspective highlights specific challenges in integrating international students into the workplace, including language barriers that affect both English and local language communication. More significantly, employers identify a critical need for international students to demonstrate sustained proactive engagement in workplace integration, noting that initial enthusiasm often wanes, leading to isolation. This viewpoint suggests that while institutional support is valuable, employers consider persistent personal initiative from international students as fundamental to their successful employment outcomes.

> ***"First of all, not all international students speak English well. And of course, most do not speak Danish. It would be better to speak Danish, because we also have a lot of very experienced people in the company who are a bit older and they don't speak English, so that could be an issue"***
>
> *Employer*

> ***"A more tight collaboration with the UAS; I don't think we want that. It depends on the amount of time and energy that we have to put into it. Because most of the times in the past that we went to some kind of career event at the UAS, the student response was really low. Maybe they don't understand the importance of such an event, so it's a waste of time for us."***
>
> *Employer*

◆ **Third-sector organisations** present a nuanced perspective on international student employability, acknowledging it as a multi-stakeholder responsibility while specifically emphasizing the crucial role of UAS. These organizations identify a significant gap in pre-graduation preparation, suggesting that UAS institutions should implement structured programs to better prepare international students for local labour market integration, for example by having career offices available for international students. However, the third-sector perspective also highlights a lack of proactive engagement from international students themselves, particularly regarding their sometimes naïve assumptions about language requirements and employment accessibility. The evidence suggests that while institutional support is essential, international students often underestimate the complexity of entering the local job market and fail to adequately prepare for these challenges.

> ***"They don't quite realize what difficulties they may encounter. Some of them are just like: 'Well, everybody speaks English in the Netherlands. I can find a job, no problem'."***
>
> *Third-sector staff member*

Responsibility: lessons and takeaways

- ***International students*** *expect UAS, to actively support their employability through internships, job placements, language proficiency, job application skills, and the creation of professional networks.*
- ***Universities of Applied Sciences*** *recognize the challenges international students face in navigating local employment markets, but their support is often fragmented and relies on individual staff efforts rather than structured institutional initiatives.*
- ***Employers*** *stress the importance of a balanced approach to international graduate employability, where both educational institutions and students share responsibility, with a particular focus on the need for international students to demonstrate sustained personal initiative in workplace integration.*
- ***Third-sector organizations*** *emphasize the need for UAS to provide structured programs to better prepare international students for the local job market, while noting that students often underestimate the challenges they face and fail to engage proactively in their own preparation.*

Employability through the lens of the international talent journey

Orientation phase

The talent journey of international students starts with the orientation on a study abroad. What factors make a country and HEI attractive for internationals? And do HEIs have a strategy for attracting international students? These questions were punt central in the interviews regarding the orientation phase.

◆ **International students** are attracted to their host countries due to several factors, including the extensive availability of English-language degree programs, comparatively low tuition fees (particularly when compared to the USA or UK), high educational standards, and overall quality of life. Approximately 25% of respondents indicated they chose their host country with the specific intention of working their post-graduation, with this trend being particularly prominent among Engineering students in the Netherlands, who are drawn to regions with strong industry presence. The combination of economic opportunities, educational quality, and lifestyle factors appears to form the foundation of these students' initial orientation towards their studies and future careers in their chosen host countries.

"For an engineer, this region [Eindhoven] is brilliant, because you have the Brainport industries and the High Tech Campus. So career wise, it's a brilliant place to live in. And in terms of quality of life; everything just works, and there are lots of skilled immigrants. It's a really smart region, mostly international. That's appealing."

International student

"We created a road map for internationalization and employability. But the road map is very broad, it is quite vague. It states a lot of things, but it doesn't have an action plan. I would like it to be more grounded, more explicit. I would like and explanation of what that means, what we want that to be, and put into operational plans and quality assurance."

UAS staff member

◆ **Universities of Applied Sciences** generally have established internationalization and employability strategies, though not all staff members are aware of these policies. This is specifically illustrated through the example of a Finnish UAS, where the strategy encompasses comprehensive internationalization goals, including creating globally relevant programs and establishing safe, inclusive learning environments. These institutional strategies often align with government policies, as demonstrated by Finland's Talent Boost Program, which aims to triple the number of international degree students by 2030 and retain 75% of them in employment within the country. However, despite having broad strategic visions, the implementation of these strategies appears to lack clarity and specificity. This is evidenced by a Finnish UAS employee's observation that while they have created a roadmap for internationalization and employability, it remains "very broad" and "quite vague," lacking

concrete action plans and explicit operational guidelines for implementation and measurement.

◆ **Employers** and **third-sector organizations** emphasize the need for better awareness and communication regarding international students' educational programs and their potential value to companies. This is particularly evident in the perspectives of third-sector organizations, who identify a significant gap in understanding between UAS and local stakeholders regarding the capabilities and qualifications of international graduates. Third-sector organizations provide general support services but typically do not differentiate between international and domestic students in their programs. Third-sector organizations also advocate for better preparation of international students before graduation and stress that many international students underestimate the challenges they may face, particularly regarding language requirements. These efforts seem to be more focused on the integration of international students within the local work field than it is focused on the orientation for a specific degree program. From the employers' perspective, while some collaborate with UAS through career events and job fairs, others express reluctance to invest time and resources in such activities due to perceived low student engagement.

"I think the main reason why it's difficult to support international students in their job search or search for an internship, is the awareness about the education from different institutions, but also the awareness about what internationals are able to do for companies. I think there should be a better communication from the UAS to our local stakeholders so that they are aware of that."

Third-sector staff member

"I'm not trying to convince them or to persuade them or to talk them on staying in Germany; if they want it, and if they feel at home here, and feel comfortable, they are welcome to stay here, and I give them the support they need"

Third-sector staff member

Orientation phase: Lessons and takeaways

- *For **international students** improved job opportunities are the most important motivation for undertaking their degree programs abroad.*
- *There exist multiple strategies and visions on employability within **Universities of Applied Sciences** but they often lack clarity and specificity.*
- ***Employers** and **third-sector organizations** underline the importance for a better preparation of international students before graduation, particularly regarding the language requirements. The results indicate that third-sector organizations do not seem to play an active role during the orientation phase.*

Qualification phase

In the qualification phase attention goes to developing competencies that are relevant for successfully entering the local labour market and increasing the employability of international students.

◆ **International students** emphasize the importance of developing various qualifications and competencies during their studies. The results reveal that students identify essential attributes including communication skills, planning ability, and proficiency in numeracy and information skills, recognizing these as crucial for aligning with employer needs. However, they strongly emphasize that these qualifications alone are insufficient for employment success. Students particularly highlight language proficiency as a critical barrier, with many realizing too late the importance of learning the local language. Additionally, students value practical experience gained through internships, side jobs, and extracurricular activities. This is illustrated by a Danish student's positive experience with an employability program that provided comprehensive training in cultural navigation, networking, and job application skills, including CV and application letter targeting. The results also indicate that students actively seek to develop their professional network, viewing it as crucial for their employability, with evidence suggesting that those who build connections with local students tend to secure internships more quickly than those who remain within international circles.

"The employability program; I can't stress enough how awesome it was, because it was some sort of a package. It's not only about culture, but it was about navigating the culture, how to approach different companies, stressing how networking is important in Denmark"

International student

◆ **Universities of applied sciences** staff members acknowledge several challenges in the qualification phase of international students. They identify multiple barriers that international students face, including cultural differences, inadequate language proficiency, insufficient job application skills, and difficulties in meeting local academic standards. A German UAS employee specifically highlights how international students struggle with cultural differences in job application processes, noting that students become frustrated when they learn they need to plan internship applications six to nine months in advance and that poor grades significantly impact their chances in Germany. The results reveal that while UAS staff recognize these qualification needs, the support provided varies significantly between institutions. Some

"In our culture, people are very independent. And as a school, we're not supposed to help students too much. Some internationals come from cultures where they do receive help. So there's a big clash between expectations; what our staff thinks that they should be doing and what the international students think the staff should be doing"

UAS staff member

UAS offer career support services, but these are often not specifically tailored to international students' needs. Furthermore, the assistance provided frequently depends on individual staff members' personal initiatives rather than structured institutional policies, for example in the form of a cultural clash between the local educational approach emphasizing independence and international students' expectations of more comprehensive support in developing their qualifications and skills.

◆ **Employers** appear to place less emphasis on formal qualifications and technical skills during the qualification phase, instead prioritizing generic knowledge and interpersonal competencies. As one Danish employer explicitly states, they view certificates merely as "a piece of paper" and are more interested in personal characteristics such as proactivity, engagement, and individual competencies. The qualification process often involves subjective assessments of candidates' soft skills and cultural fit, with some employers, like a Finnish company, incorporating team-based interviews to evaluate personality and alignment with company culture. However, this emphasis on soft skills and cultural fit can present significant challenges for international students, particularly due to language barriers and cultural differences. The interviews indicate that international students may face obstacles in demonstrating their qualifications due to differences in spoken languages, cultural customs, and job application methods.

> ***"Apart from the regular interview with the CEO, since we don't have an HR department, we also have a meeting with the candidate and the entire team. So that way we can get to know the person a bit more personally."***
>
> *Employer*

◆ **Third-sector organizations** appear to have mixed experiences regarding international students' qualification phase. According to the interviews, these organizations acknowledge that some international students lack awareness of the importance of developing necessary qualifications, particularly language skills. As illustrated by a Dutch third-sector staff member, some students underestimate the challenges they might face, assuming that English proficiency alone is sufficient in countries like the Netherlands, while overlooking the expectation to learn the local language. The interviews also reveal that third-sector organizations typically provide general career guidance and focus on personal factors affecting employability, but notably, they do not offer specialized services for international students or recent graduates. This is exemplified by the German federal employment agency's perspective that international students, especially those who studied in Germany, are considered sufficiently skilled and do not require differentiated support. However, these organizations recognize that some international students need personal support for issues like

> ***"I think that many students don't take it seriously. They don't quite realize what difficulties they may encounter. Some of them are just like: 'Well, everybody speaks English in the Netherlands. I can find a job, no problem'."***
>
> *Third-sector staff member*

feeling at home or loneliness, though they acknowledge this falls outside their scope of services.

Qualification phase: Lessons and takeaways

- *While qualifications and competencies are important, language proficiency, practical experience, and networking are crucial factors for **international students'** employability success.*
- ***Universities of applied sciences** recognize the challenges faced by international students, the support they offer is often inconsistent and not always tailored to students' specific needs.*
- ***Employers** prioritize soft skills, cultural fit, and personal attributes over formal qualifications, which can pose challenges for international students due to language and cultural barriers.*
- ***Third-sector organizations** recognize gaps in international students' awareness of the need for qualifications, particularly language skills, but typically lack specialized support for these students' unique challenges.*

Networking phase

In the networking phase, the individual's social capital is central, or the knowing-whom. What role does networking play in the employability of international students and what factors and support affects the networking phase?

◆ **International students** strongly emphasize the critical role of networking and social capital in their employability journey but they face significant challenges in developing these connections in their host countries. They explicitly expect their UAS to facilitate networking opportunities and professional connections. Students recognize that individual faculty members sometimes assist high-performing students through their industry contacts, such as by writing recommendations, but they desire a more structured, institutionalized approach to networking support from their UAS. The interviews reveal that international students who successfully build local connections, particularly with domestic students, tend to secure internships and jobs more quickly than those who primarily socialize within international student circles. This is exemplified by the experience of international students in Germany, where those who developed friendships with German students found employment more readily than those who remained within international social groups.

> ***"I feel like contacts are really helpful. I've seen that my international classmates who only hang out with each other, they take six months to one year to find an internship. The international students I know who hang out with German friends, I feel like they get a job faster and easier because contacts really do work"***
>
> *International student*

◆ **Universities of applied sciences** demonstrate varied approaches and challenges in facilitating networking opportunities for international students. While most UAS offer career support services, their involvement in networking activities often lacks institutional structure and relies heavily on individual staff members' personal initiatives. Some UAS employees report investing their spare time to connect international students with companies through platforms like LinkedIn and through their personal professional networks, but this extra effort often goes unrecognized by management and isn't formally integrated into their workload. Interviews held with UAS staff reveal communication challenges within UAS institutions, where existing support services and networking opportunities may be available but aren't effectively communicated to students. This is exemplified by a Danish staff member who noted significant organizational difficulties in their communication strategies, resulting in students being unaware of online support services unless staff actively promote them in classrooms. Furthermore, while UAS institutions maintain relationships with employers through various channels, there appears to be no systematic approach to leveraging these connections specifically for international students' benefit, and the effectiveness of these networking efforts is often not monitored or evaluated within the institutions' broader employability strategies

> ***"The main difficulty is that the students might not have knowledge about that this support actually existing. We have some organizational difficulties with our communication strategies. So we are struggling quite a lot with spreading the knowledge about our online support."***
>
> *UAS staff member*

◆ **Employers** demonstrate varying attitudes and practices towards networking with international students and educational institutions, revealing both opportunities and challenges in this phase. While most employers interviewed maintain some level of collaboration with UAS through career events, job fairs, company visits, guest lectures, projects, internships, and excursions, some express reluctance to deepen these networking relationships due to perceived low student engagement and resource constraints. The interviews indicate that employers often rely heavily on existing networks and recommendations from UAS staff when hiring, which can create a "hidden job market" that is particularly challenging for international students to access. This networking dynamic is explicitly acknowledged by some employers, with a Finnish employer directly stating that the friend-of-a-friend recruitment approach makes it difficult for internationals to enter the workforce. Some employers actively engage in networking relationships with UAS institutions, even receiving direct recommendations about promising students, though this practice could potentially reinforce bias in hiring. Several employers, particularly in Finland and the Netherlands, express a desire for better networking mechanisms to connect with international talent, acknowledging they need to improve their visibility beyond traditional platforms like LinkedIn.

> ***"There is a hidden job market, where a friend of a friend knows somebody for a job. That is why it very hard for internationals to get recruited."***
>
> *Employer*

◆ **Third-sector organizations** play an active intermediary role in facilitating networking between international students and employers, though their efforts are not always specifically targeted at international students. These organizations engage in multiple networking-related activities, including organizing job fairs and networking events to connect international talent with local employers. They recognize the importance of building awareness among employers about international hiring opportunities and work to establish connections between various stakeholders. However, their effectiveness is limited by several factors. First, they express a need for better cooperation with UAS and more detailed information about degree programs to effectively communicate the value of international graduates to employers. This is illustrated by a Danish respondent who emphasized the importance of understanding and communicating what international students from specific programs can offer to local companies. Second, these organizations acknowledge that they need to expand their employer networks, with one Dutch respondent noting that while they have 700 companies in their network, this needs to continuously grow to effectively support international students' careers. The interviews also reveal that while these organizations provide general networking support and career guidance, they often do not differentiate between domestic and international students in their services, potentially limiting their effectiveness in addressing the specific networking challenges faced by international students.

> ***"There isn't a lot of specific activity directed towards international students. They are welcome, they can easily use our general programs that we offer to get people into the labor market. But there is not a lot of differentiation between Germans and foreigners.***
>
> *Third-sector staff member*

Networking phase: lessons and takeaways

- **International students** recognize the importance of networking for employability and seek more structured institutional support to help them build local connections, which can significantly improve their job prospects.
- **Universities of Applied Sciences** offer career support, but their networking initiatives often lack structure and effective communication, by relying on individual staff efforts that are not always recognized or integrated into institutional strategies
- **Employers** engage in networking with UAS institutions. However, challenges such as low student engagement, reliance on personal networks, and a "hidden job market" can make it difficult for international students to access opportunities, highlighting the need for improved networking mechanisms.
- **Third-sector organizations** play an important intermediary role in connecting international students with employers, but their efforts are hindered by a need for better cooperation with UAS, more targeted employer networks, and tailored support for international students.

Landing phase

The employability process culminates in the fourth phase, the landing, meaning: finding a fitting job on the local labour market. What challenges do students face in finding a job that fits their qualities?

◆ **International students** face several challenges in the landing phase of employability when seeking employment in the host country's labour market. Non-EU international students particularly struggle with structural barriers, including complex visa processes and finding companies willing to handle the necessary paperwork, which can create reluctance to repeatedly engage in job searching. Even when successful in securing employment, some international students report unfair treatment in the workplace, where they may be viewed as easily exploitable labour. These students often face situations where they are underpaid and overworked compared to local standards, feeling pressured to accept such conditions due to perceived competition for positions. Interviews held with international students indicate that the primary challenge isn't necessarily in obtaining employment itself, but rather in finding an organization that provides fair treatment and appropriate working conditions. Additionally, international students may feel isolated within the organization because the predominant language remains unchanged. Repeatedly suggesting language modifications could quickly become tiresome and might make these students feel like they are imposing an unnecessary burden on their colleagues.

> ***"The challenging part is not the acquiring of the job itself. It is finding a job at a place where you are not seen as a means to an end. From personal experience and from talking to classmates, I can say that some companies, whether they be small or big, they tend to use internationals in a very negative way."***
>
> *International student*

> ***"I sit on the table. Everyone around me is talking in Dutch and it's like 'Hey guys could we speak in English?'... I can't always be that guy who's like 'Hey can we be in English?' It gets annoying and they shouldn't be doing it for me. They should be doing it because they want to.***
>
> *International student*

◆ **Universities of applied sciences** acknowledge the challenges international students face in the landing phase but demonstrate varying levels of engagement and support. While UAS staff members accurately recognize the barriers international students encounter - including cultural differences, lack of professional networks, language requirements, employers' unconscious bias, and administrative burdens - their response to these challenges is often inconsistent. Some staff members

> ***"There's a difference between accepting somebody and also accommodating for somebody. Do you feel like: you can join us, and as long as you play according to our rules, and you act as if you're Dutch, then it's fine. Or do we really make the effort of accepting that somebody is fundamentally different because of their background. There's a big difference between accommodating or just accepting someone."***
>
> *UAS staff member*

place responsibility on employers, noting that while companies may be internationally oriented, they often expect international students to adapt to local norms rather than creating truly inclusive workplaces. Additionally, staff members observe that international students sometimes lack understanding of local job market expectations, such as the importance of advance planning and academic performance in certain countries. Despite recognizing these issues, most UAS lack clear policies for enhancing international students' employability, with support often relying on individual staff members' personal initiatives and spare time rather than institutional frameworks. Some staff members feel unprepared or reluctant to provide extra assistance to international students, citing cultural differences in expectations of support, while others report that existing services go unutilized due to communication challenges between the institution and students.

◆ **Employers** demonstrate varied perspectives and practices during the landing phase of international students' employability. Their assessment of candidates heavily emphasizes personality and soft skills over academic qualifications, with many employers prioritizing cultural fit through team-based interviews and personal interactions. Many employers place significant responsibility on international students to drive their own integration and maintain engagement in the workplace, especially regarding language acquisition and cultural adaptation. While some employers collaborate with UAS through career events and internships, others are reluctant due to perceived low student engagement or fear of the unknown when it comes to hiring international talent. Some employers openly express reluctance to hire international students, citing concerns about administrative burdens, particularly for non-EU candidates, and lack of resources for proper onboarding support. While some organizations acknowledge the need for internal training on diversity, equity, and inclusion, others express indifference to candidate nationality, focusing solely on finding the best candidate for the role, regardless of origin. Many employers, especially in Finland and the Netherlands, indicate a need for support with bureaucratic processes and improved visibility to international talent, while others remain unconvinced of the added value of international recruitment.

> ***"The main thing is the recruiting part when hiring internationals. It is so much paperwork, and it's so expensive to get them. You need to know which rules are applicable to somebody from abroad. Then finding housing they can pay is complicated. I think there should be some solutions, some kind of support from the government."***
>
> *Employer*

◆ **Third-sector organizations** appear to play a supportive yet somewhat limited role in the landing phase of international students' employability. These organizations work on two fronts: they assist employers by providing training on recruitment and diversity management, offering legal information, advising on inclusive corporate culture, and organizing job fairs and networking events. They also support international job seekers through career guidance services. However, their services often lack specificity for international students, as exemplified by a German federal employment agency employee who indicated that international students are expected to use general programs without much differentiation from local students. The organizations recognize gaps in their effectiveness, particularly noting the need for better cooperation with UAS and improved awareness of their services among local employers. As one Dutch respondent mentioned, they need to expand their network of companies to better assist international students with their careers.

> ***"There isn't a lot of specific activity directed towards international students. They are welcome, they can easily use our general programs that we offer to get people into the labor market. But there is not a lot of differentiation between Germans and foreigners. We think that international students are so skillful, at least those who studied in Germany, they should be able to speak the language. I think there is not so much differentiation needed. And the support they may need at a personal level: that's something we couldn't offer. It's necessary, for people who don't feel at home, who feel a little bit lonely, who need some personal support, but that's not our task. It's difficult for us to offer that."***
>
> *Third-sector staff member*

Landing phase: lessons and takeaways

- **International students** may find employment, but they often face significant challenges in the form of structural barriers, visa issues, and unfair treatment in the workplace, including exploitation and poor working conditions.
- **Universities of Applied Sciences** recognize the challenges international students face in the landing phase, yet their support is often inconsistent and lacks clear institutional policies, relying heavily on individual staff efforts and personal initiatives.
- **Employers**' perspectives on hiring international students vary, with many prioritizing soft skills and cultural fit over qualifications but concerns about administrative burdens and a lack of engagement or support for international candidates persist.
- **Third-sector organizations** provide valuable support for international students in the landing phase, but their services often lack specificity and differentiation from those offered to local students, highlighting the need for better cooperation with UAS and improved employer engagement.

6 Conclusions and recommendations

Conclusions

The aim of the project was to gain insight in the enabling and hindering factors regarding the employability of international students from different levels and perspectives. We started with discussing the national, policy level, because understanding the international student journey is crucial for policymakers, universities, and other stakeholders to enhance the attractiveness and employability of international graduates. Subsequently we focused on the employability process, which helped us to identify factors on a regional, organizational and individual level.

Factors on a national policy level

The literature review in chapter 2 indicates that national policies clearly influence the country of choice of internationals to study and their intention to stay. The attraction and actual presence of international students in the four focus countries is largely influenced by government policies. Denmark, Finland, Germany, and the Netherlands attract international students due to their high quality of life, safety, top-tier education, numerous English-taught programs, and strong career prospects driven by labour market shortages. However, differences in international student presence across these countries stem mainly from political decisions.

The retention of international students after graduation in the four focus countries varies and is mainly influenced by a combination of professional and personal factors. Although many of these factors lay in the private domain, governments try to influence the decisions of international students regarding their post-graduation plans with specific policies. These policies are mainly focused on offering easy access to post-study visa, work and housing permits. Finland has also launched the Talent Boost programme, to align the labour market needs with the skills of international graduates to enhance their post-graduation employability.

The actual stay rates for international students graduated from UAS are lower than their intentions to stay. There are multiple hindering factors, but the language barrier limits the professional opportunities in the host country the most. While many degree programmes are taught in English, fluency in respectively Danish, Dutch, German or Finnish is advantageous on the local labour market, especially in certain sectors. The reluctance of companies to provide job offers in English or give access to important materials in English, and the lack of knowledge about the working culture in the host country also contribute to difficulties in finding suitable employment. Difficulty integrating into society is another hindering factor, with the social and professional network of internationals often being outside of the host country. Additionally, there are administrative burdens associated with residence permits for non-Europeans. These factors can impede the ability of international UAS graduates to find suitable employment in their host country.

When we look at the specific hindering factors for the four focus countries, we see that Denmark is the worst-rated destination for making local friends. The relatively small job market

and associated cronyism limit employment opportunities for international graduates in Finland, particularly outside major cities. The tense housing market clearly exerts a negative influence on the retention of internationals in The Netherlands. And not having a master's degree, the non-recognition of foreign qualifications and work experience pose challenges for international graduates in Germany.

Regarding the enabling factors for retention of international students after their graduation from UAS, we can conclude that personal factors weigh heavily (having a partner and friends in the host country), in addition to the chosen study programme (students graduated from disciplines with shortages on the labour market stay more often) and the country of origin (non-Europeans from countries with poor economic prospects stay more often). It is also very important to remark that international students who had a side job, volunteered or gained work experience in other ways during their studies (e.g. via an internship) are more likely to stay after graduation. Not only because of the valuable professional experience (CV building), but also because of the established social connections. Social integration paves the way for remaining in the host country.

Factors on the level of the HEI, employers and third-sector organizations

This research highlights the key factors influencing the employability of international students, focusing on the roles of employers, the University of Applied Sciences (UAS), and third-sector organizations. From the perspective of employers, international students contribute valuable diversity, multilingual abilities, and adaptability to the workplace, which align well with the needs of global and multicultural organizations. UAS institutions play a significant role in enhancing employability by offering practical, hands-on education through internships and applied learning. They further empower international students through strong career support services, such as mentorship programs and job fairs. Additionally, partnerships between UAS and industries provide seamless pathways for students to enter the workforce by leveraging professional networks and real-world exposure. Third-sector organizations also play an essential role by providing targeted programs, such as workshops, mentorship initiatives, and language courses, tailored to the specific needs of international students. These organizations address systemic barriers, such as visa restrictions and labour market discrimination, by raising awareness among policymakers and employers.

However, several hindering factors affect employability. Employers often face challenges in hiring international students due to visa restrictions, perceived cultural or communication barriers, and a lack of local work experience. On the side of UAS institutions, limited career guidance tailored specifically for international students, insufficient emphasis on local language proficiency, and restricted access to professional networking opportunities hinder employability. Furthermore, third-sector organizations face constraints due to limited funding and resources, which can reduce the scope and reach of their programs. A lack of collaboration between these organizations and employers or educational institutions may result in fragmented support services, while dependency on volunteer-led initiatives can lead to inconsistent service delivery or a lack of specialized expertise.

Factors on the individual, student level

We also identified factors at the level of the individual student that significantly influence employability. The skills, knowledge, and attitudes of international students play a crucial role in determining their success in the job market. Proficiency in transferable skills, such as communication, teamwork, and problem-solving, greatly enhances their value to potential employers. Cultural intelligence and the ability to adapt to diverse work environments are also significant assets, and students who proactively seek internships, build networks, and engage in extracurricular activities distinguish themselves from their peers. Furthermore, language proficiency, particularly in both English and the local language, serves as a critical enabler for successful job integration.

However, several hindering factors at the individual level can negatively affect employability. A lack of familiarity with local industry standards and workplace culture presents a significant challenge for international students. Overemphasis on academic credentials, without balancing this with practical experience or networking opportunities, may limit their employment prospects. Cultural barriers and difficulties in navigating informal workplace norms further hinder integration and professional success. Additionally, a passive approach to career development, including limited engagement with career services and networking opportunities, reduces the likelihood of securing meaningful employment.

Recommendations

Based on the interview findings we have the following recommendations for HEIS, employers, third-sector organizations and international students themselves.

Recommendations for International Students

- We advice international students to proactively work on improving their proficiency in the local language to enhance both their employability and social integration.
- Students should also focus on developing transferable skills such as communication, teamwork, and problem-solving, which are valuable across various industries.
- Students are advised to actively seek internships, part-time work, or volunteering opportunities during their studies. Gaining practical experience in the host country not only strengthens their résumés but also helps them build professional networks that can lead to future job opportunities.
- Cultivating cultural intelligence is crucial for international students. They should try to learn about the local workplace culture, including informal norms and expectations. Attending workshops but in particularly side jobs or being engaged in projects with local students and employers can further enhance their adaptability.
- International students are advised leverage the career services provided by their UAS. These services can help them prepare for job applications, interviews, and networking opportunities. Building relationships with peers, professors, and local professionals and using their professional network is also vital for expanding their social and professional networks.

- It is important for students to adopt a proactive approach to their career development. Setting career goals early and creating an actionable plan to achieve them can greatly improve their chances of success. Staying informed about labour market trends, industry requirements, and visa/work permit regulations is equally critical.

Recommendations for Higher Education Institutes (HEIs)

- It is very important that HEIs place a strong emphasis on local language learning by incorporating mandatory local language courses into their curricula. These courses should aim to ensure that students achieve at least conversational proficiency in the local language. Furthermore, universities should provide language-learning support tailored to professional contexts, such as workplace communication and industry-specific terminology.
- HEIs should enhance their career support services in a coordinated way by providing specialized career guidance. and mentorship programs tailored to the unique challenges faced by international students. These programs should address issues such as visa regulations and local labour market requirements.
- HEIs should host regular career fairs focused on industries with labour shortages, inviting employers who are willing to hire international talent.
- HEIs should foster strong collaborations with local industries to enhance the employability of international students. Establishing partnerships with businesses can help create internship opportunities, co-op placements, and job shadowing programs that align with real-world needs.
- HEIs should use existing alumni networks to connect current international students with professionals who have successfully navigated local industries.
- HEIs could promote social and cultural integration by organizing cultural exchange programs, networking events, and community-building activities. These initiatives can help international students establish both social and professional connections in the host country. Workshops on local workplace culture, including informal norms and expectations, could also be offered to promote social and cultural integration.
- HEIs are advised to address administrative challenges by collaborating with third-sector organisations such as government agencies to streamline residency permits and visa processes for international graduates. Providing students with resources or legal aid to navigate complex administrative procedures can further alleviate these barriers.

Recommendations for employers

- It is important that employers adopt inclusive hiring practices by recognizing the value of diversity, multilingualism, and adaptability that international graduates bring to the workplace. Onboarding programs should be implemented to ease cultural integration and address potential communication challenges. Employers should therefore raise awareness within their organizations about the long-term benefits of investing in international talent.
- To help bridge language barriers and enhance workplace integration, employers should provide language training opportunities for international employees. Additionally,

employers should develop bilingual job postings and internal materials to encourage English-speaking talent to apply.

- We highly recommend employers to be engaged in collaborative initiatives with higher education institutions by co-designing internships, projects, or industry challenges that align with the needs of the workforce. Participating in mentorship programs can help international students understand local workplace culture and expectations.
- Employers should streamline recruitment processes by advocating for simplified visa sponsorship procedures. This would reduce administrative burdens for hiring international graduates.
- Employers could expand job opportunities for international graduates beyond major cities. This can be achieved by addressing labour shortages in smaller cities or rural areas and offering flexible remote work arrangements where possible.

Recommendations for third-sector organizations

- Third-sector organizations do acknowledge that international student employability is a multi-level stakeholder responsibility. To level the playing field, it is therefore important that HEIs, employers, and third-sector organizations collaborate to advocate for policies that reduce administrative burdens, simplify visa and work permit processes, and promote the retention of international graduates.
- Public awareness campaigns might offer room to highlight the contributions of international graduates to local economies and cultures. These campaigns can help reduce stigma and foster a more inclusive society.
- Regional talent programs, such as Finland's Talent Boost initiative, are valuable interventions to align skills development with labour market needs. These programs can serve as models for other countries seeking to enhance the employability of international graduates.
- Lifelong learning opportunities should be encouraged for international graduates. By promoting continuous education and upskilling, international graduates can remain competitive in the evolving labour market.

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