حـــوار أبوظبـــي بيـن الـــدول الآسيويـــة المرسلـــة و المستقبلـــة للعمالـــة
Abu Dhabi Dialogue among the Asian Labor-Sending and Receiving Countries

Integrating development objectives into Skills Mobility Partnerships

Jason Gagnon
Migration and skills OECD Development Centre

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Abstract

As innovation, demographic and technological change take firm grip of global economic foundations, the future of employment remains on fluid ground. At the heart of such change are the skills and the accumulated knowledge brought by individual workers, necessary to keep a healthy economic momentum, and ultimately sustain dignified and productive livelihoods. But in many parts of the world, the needed skills – many of which are new - are scarce, and employers and local investors are increasingly seeking them abroad – many through skills mobility schemes (SMSs), a broad definition that encompasses regular, orderly, and safe labour channels for countries in need of specific skills. This paper comparatively reviews 56 international Skills Mobility Schemes (SMSs), focusing on their components, the partnerships they are built on, and ultimately, on their link to socio-economic planning and lasting impact in the country of origin.

Foreword

The future of work has become a catch-all term reflecting how the management of the current context of poly-crises and multiple transitions will impact livelihoods. Inequality, lack of trust in government, failures in global co-operation, greener economies, a sped-up technological leap, all of these are ingredients to the insecurity felt and perceived with respect to the ability not only to create the conditions that lead to productive and dignified lives, but also generate sustainable development paths. How can we smooth the current speed bumps in employment, such that transition is fair and inclusive?

By supporting policy decisions through empirical evidence and analysis, the OECD Development Centre has carved a role in analysis and dialogue on better understanding the consequences for the future of work. The Development Centre specifically supports its members by disentangling how the future of work will impact low- and middle-income countries, and in this paper looks at the future of work through the lens of human mobility. It asks how such mobility can support more sustainable development paths in migrant countries of origin, through pre-existing migration programmes.

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Executive Summary

The future of work is in flux, mired in a mix of technological innovation, demographic change and green and digital socioeconomic transitions. It is in flux because such transitions imply a change in the demand and supply for specific skills, which are in a state of constant evolution to address new economic and social realities. Such transitions also mean that the shelf-life of certain skills is reduced, and certain occupations become obsolete quicker, while the demand for others can emerge quickly (OECD, 2022[1]). The world's increasing economic and political integration has added another vector to the mix, such that employers in certain occupations and sectors facing labour shortages, are increasingly looking outward to fill them (Hooper, 2023[2]).

The cost of not addressing skills mobility will ultimately lead to lost opportunity and a step back in an otherwise positive development arc. One reason is the acceleration of different kinds of transitions, across all parts of the world. A demographic transition is perhaps most striking by contrasting trends in Africa, where the size of the active population is growing, with that of Europe, where the size of the active population is shrinking (Figure 1.1). But the world is also gripped by technological and green transitions, both of which are accelerating while also deeply affecting socioeconomic systems. Production systems have been turned on their heads through the proliferation of renewable energy, for instance.

Countries have invested in education and upskilling to address labour market challenges. Per capita government expenditure on education has increased worldwide in the last decade, particularly in low-income countries (LIC) and upper middle-income countries (UMIC) (UNESCO/World Bank, 2023. However, TVET enrolment remains very low in most world regions,

particularly in Africa, the Middle East, South Asia, and Latin America (World Bank, 2018. Furthermore, TVET systems in many low- and middle-income countries are ill-equipped to address labour market needs due to insufficient funding, teachers who are lack the necessary pedagogical skills and inadequate support to students in the school-to-work transition (Levin et al., 2023. In OECD countries, job vacancies remain high following the COVID-19 pandemic, despite low levels of unemployment (OECD, 2022. More and better education is insufficient to address these labour market gaps. More workers with the right skills are needed.

The potential of digital industries is being hampered by the lack of skills in demand by the private sector in GCC countries. Three quarters of the surveyed workforce stressed that digital skills are a top priority for their careers in the next five years, more than the global figure of 57% (PwC, 2023[26]). [JG1] Computer science and information technology degrees are among the top five sought after academic qualifications across the Middle East, with business management, engineering, and ICT in the GCC countries (Bayt.com and YouGov, 2023[33]). However, only 40% of students follow high-demand disciplines in Saudi Arabia (Misk Academy, 2020[27]). The top skills of the Gulf workforce are often less relevant and specific to the hard technical needs of the private sector, especially for emerging technologies like big data and cloud computing. Employers look for concrete technical skills like statistical analyses and data mining, algorithm design, programming languages, cybersecurity, and other industry-specific software (Bohsali et al., 2017[45]). Much is due to the limited academic and professional environment for digital skills and lack of interest, while the low quality of education is an issue in some countries like Saudi Arabia (Bohsali et al., 2017[33]; Rivera, Azam and Ajwad, 2022[34]). At least in the UAE, 77% of IT decision-makers view this shortage as a threat to their business (Equinix, 2022[34]). This shortage may be holding back the digital sector in the GCC that already experiences fewer jobs than comparable countries, mostly filled with expatriates (Bohsali et al., 2017[33]). Skills are urgently needed considering that data analytics, cloud computing, and AI technology are priorities for Omani engineering companies in the upcoming years (IET, 2023[31]). About a quarter of senior decision-makers believe that labour and skill shortages will continue to exist in the UAE (IET, 2022[15]).

Skills shortages are not limited to high-income countries. The tech skills gap already affects four in five African organisations in the previous years (Sound, 2023[18]). Many African markets compete for talent in the internet economy and beyond. About 65 percent of recruited employees in African companies were required to have at least a basic level of digital skills (IFC, 2019[14]). Across skill-level, demand exceeded supply, as four in five African organisations reported to be affected negatively by a lack of tech skills in 2022 (Sound, 2023[18]).

But local training and education is not enough – international mobility has become essential in addressing skills needs. One reason is that not all skills are available within a country or even a region. And carrying-out reform in education and training systems is a medium-term solution, as skills produced through such means would not be available for years. In

many cases, skills needs are time sensitive. Secondly, mobility and exchange across countries and regions leads to accumulated learnings itself, as cultures and socioeconomic systems have their own specific way of working and engaging in socioeconomic systems. Third, the cost of labour, and the aspirations and preferences of workers may shift within a country. Importing labour may be necessary to fill certain shortages in certain sectors.

To meet this challenge, Skills Mobility Schemes (SMSs) have been developed between countries. That is, labour migration programmes which involve a skills development aspect that helps address labour market demand in the country of destination. The inclusion of a skills development component differentiates skills mobility schemes from traditional foreign worker programmes, in which mobility pathways were created without much focus on specific skills. The mobility aspect of SMSs can include a variety of objectives. The most common is reducing labour shortages in the country of destination. Tied with this, SMSs can also aim to reduce labour shortages in the country of origin, regularise circular migration pathways and improve cooperation between countries along popular migration corridors.

Skills Mobility Schemes (SMSs) have 3 essential components:

1. That there be work-specific skills development offered to participants by the scheme.
2. That there be one or multiple skills or sectors targeted in the scheme.
3. That there be partnerships and cooperation in the creation of the scheme, including government involvement.

Questions abound on skills mobility schemes, particularly as countries aim to develop news ones, expand them and scale them up. This paper reviews 56 skills mobility schemes from around the world, deconstructs their different components and the partnerships they require, and ultimately asks whether they are fulfilling greater objectives related to development.

The SMSs reviewed have two overarching objectives in common:

1. Addressing labour market shortages in the country of destination
2. Creating pathways for safe and regular labour migration.

SMSs typically target specific sectors, such as healthcare, information and communications technology (ICT), business and entrepreneurship, hospitality and construction sectors. Skills mobility schemes require the collaboration of various actors to be successful. Most skills mobility schemes have successfully addressed labour market shortages.

Skills mobility schemes (SMSs) are complex programmes made up of a wide array of institutions and stakeholders. Skills mobility schemes operate within pre-existing pathways for regular migration. Bilateral Labour Agreements (BLAs) can be a very useful tool to establish skills mobility schemes. Many skills mobility schemes follow a circular migration approach. Skills mobility schemes prioritize labour and skills assessments in countries of destination over those in countries of origin. Scheme authorities must cooperate to ensure skills recognition processes are developed in both countries of origin and destination. Moreover, credential recognition systems must be adapted to partner country contexts. Sector-specific skills mobility schemes can create international partnerships across sectoral lines.

Skills mobility schemes require suitable data collection and evaluation. Data collection and analysis are central to building a business case for skills mobility schemes. Some skills mobility schemes have adopted a "triple win" or "quadruple win", which aims to benefit countries of origin and destination, the private sector as well as participants. A dual track system may play a vital role in a "quadruple win" scheme. Pre-departure and post-arrival orientations are very common, utilised in over three quarters of the mobility schemes. Despite the circular nature of many SMSs, return and reintegration efforts are only a component of 56% of the schemes in our database. Schemes have a role to play in helping participants achieve their long-term goals.

Political and institutional buy-in is essential to successfully meet the objectives of SMSs. There must be a clearly defined agreement between the country of origin and country of destination governments or other relevant authorities, outlining the skills mobility scheme. Skills mobility schemes as tools to address labour market gaps hinge on the ability of education and employment institutions to collaborate on the skills matching process.

The public sector must prioritise its partnership with private sector employers as they know what workers they need. Data cooperation between countries and between public and private sectors may require capacity building and fostering of trust between all stakeholders involved. Skills mobility schemes ensure mutual benefits and incentives for all stakeholders. There is a fundamental need for capacity to implement and run, as well as ensuring a territorial and local dimension to such partnerships.

There are many gaps in the implementation of the principles of Skills Mobility Partnerships (SMPs) and Global Skill Partnerships (GSPs). Development in the country of origin remains insufficiently addressed in skills mobility programmes. Political and institutional buy-in as well as partnership among all relevant stakeholders are key for a scheme's success.

Building public-private partnerships remains challenging for many skills mobility schemes. Being flexible and building trust between stakeholders are key to creating successful SMSs. Consistent monitoring and evaluation

(M&E) are essential. Using these frameworks of monitoring and evaluation, a measure of success must be determined for skills mobility schemes. Building upon frameworks for evaluation and measures of success, SMSs must build a business case for themselves.

Credential recognition and migration systems must be adapted to skills mobility schemes. Skills mobility schemes have a role to play in adapting migration systems to future skills needs. Capacity building of institutions, migration governance and data management has a positive impact on the scheme's outcomes as well as on development in the country of origin. Finally, SMSs have adopted a “quadruple win” approach to address fears of “brain drain” in countries of origin.

There is insufficient knowledge on bilateral labour agreements (BLAs) worldwide. Moreover, migration systems need to transition into being more suitable for countries’ demographic needs. Scalability and sustainability remain out of reach for most skills mobility schemes. Equal partnership between countries of origin and destination remains a challenge. Collection, analysis and sharing of the appropriate data. There is insufficient inclusion of country-of-origin development objectives and strategies.

Policy recommendations to Abu Dhabi Dialogue Members include:

1. Skills mobility partnerships must be connected to broader development goals, not only in host countries, but also countries of origin;
2. To do so, capacity development in the country of origin must become a greater feature of skills mobility partnerships;
3. In practice, this means connecting skills mobility partnerships with national, sectoral and local development plans as well as donor and partner country strategies in the country of origin.

1 Why has addressing skills mobility become urgent?

The future of work is in flux, mired in a mix of technological innovation, demographic change and green and digital socioeconomic transitions. It is in flux because such transitions imply a change in the demand and supply for specific skills, which are in a state of constant evolution to address new economic and social realities. Such transitions also mean that the shelf-life of certain skills is reduced, and certain occupations become obsolete quicker, while the demand for others can emerge quickly (OECD, 2022[1]). The world's increasing economic and political integration has added another vector to the mix, such that employers in certain occupations and sectors facing labour shortages, are increasingly looking outward to fill them (Hooper, 2023[2]).

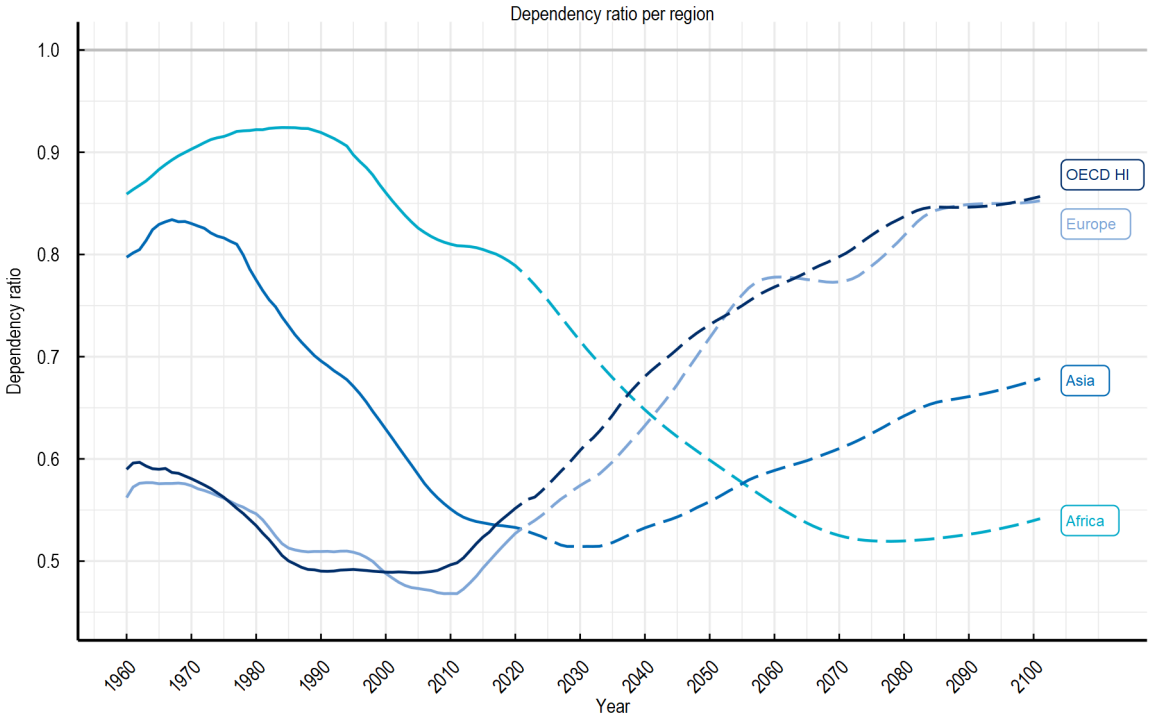
The cost of not addressing skills mobility will ultimately lead to lost opportunity and a step back in an otherwise positive development arc. One reason is the acceleration of different kinds of transitions, across all parts of the world. A demographic transition is perhaps most striking by contrasting trends in Africa, where the size of the active population is growing, with that of Europe, where the size of the active population is shrinking (Figure 1.1). But the world is also gripped by technological and green transitions, both of which are accelerating while also deeply affecting socioeconomic systems. Production systems have been turned on their heads through the proliferation of renewable energy, for instance.

Digital and green transitions are driving growth. Electric car sales reached a record high of more than 10 million in 2022 for instance, a tenfold increase over five years (IEA, 2023[3]). The compound annual growth rate (CAGR) between 2012 and 2022 in renewable energy sources such as solar (29%) and wind power (15%) has been exponential, not linear (RMI, 2023[4]). The global market for key mass-manufactured clean energy technologies will be worth USD 650 billion a year by 2030 (IEA, 2023[3]). These sectors and areas of investment can be opportunities to create economic and social value, while creating employment in countries. Embracing the positive aspects of such transitions can lead to positive outcomes. When the challenges of transitions are embedded into the future strategical orientation of countries, they can shift to opportunities, targeting production systems, job creation, trade links and ultimately better lives.

Skills supply and demand are in flux in OECD countries, generating shortages and surpluses. Evidence suggests that there are shortages in content skills (e.g. reading comprehension, writing, speaking and active listening), process skills (e.g. critical thinking and active learning) and complex problem solving and social skills (e.g. instructing, social perceptiveness) in OECD member countries (OECD, 2017. Evidence of shortages have also been documented in computers and electronics, education and training, mathematics and science fields (OECD, 2017). Compared to 2012 levels, training, education and medical knowledge continue to be in large shortage. On the other hand, in certain skills like digital and cognitive skills, shortages exists but the gap has decreased since 2012 (OECD, 2022. At the other end of the spectrum, skills related to business processes, resource management and communication and are complementary skills to automation, are now in surplus across OECD countries. Since 2010, social skills, law and public safety knowledge have shifted from being in shortage in OECD countries to being in surplus (OECD, 2022.

There is a fast-growing demand for digital skills worldwide. Digital skills are the capacity to use technology to accomplish required tasks. Basic digital skills include searching the web, writing emails, and managing word processors, while advanced digital skills may encompass graphic design and data analysis (ILO, n.d. Across OECD countries, the demand for advanced data analysis skills, programming skills, and social media skills has grown at a faster rate than for the average skill in these labour markets (OECD, 2022.

Figure 1.1. Population dependency ratios are rising in high income countries, while they are falling in Africa



Note: The dependency ratio assesses the non-working age population (0-14, 65+) relative to the working age population (15-64). Dashed lines are OECD HI includes high-income OECD countries. Regions follow UNDESA, excluding Africa, which is based on Africa's Development Dynamics 2023.

Source: Author's calculation based on UNDESA 2022 Revision of World Population Prospects

What skills?

While it is central to the policy discussion on the future of work, the term 'skill' itself has broadened and has become more nuanced. The term skill can refer to the ability to carry out the tasks and duties of a given job and be determined by the types of tasks and duties to be performed. It can also be summarised by level of education and prior experience. But modern approaches to the discussion on skills nuance their meaning much more. Skills can be categorised, for instance, as being hard or soft. Hard skills are the technical capacities that are demanded by a specific occupation, while soft skills are inter-personal skills, such as teamwork, presentation and communication abilities, and intra-personal skills, such as self-motivation, self-discipline, and enthusiasm (Gagnon and Gagnon, 2021. Skills can also be defined as being transversal, and applied across occupations and sectors, including critical and innovative thinking. Skills for green jobs, an umbrella term related to the knowledge, abilities, values, and attitudes needed to live in, develop and support a sustainable and resource-efficient society, are an example. Such skills are transversal competences that are necessary to perform green jobs. Skills are also not limited to those of the highest, most difficult to acquire. They also

comprise technical or vocational skills, many of which tend to be of the highest demand (The World Bank/UNESCO/ILO, 2023.

Green skills lack a unified definition, but there are ways to help identify needed labour and skills. The main challenge in identifying green skills is the lack of shared definitions and approaches (OECD, 2023[2]). Studies may define green industries and then label skills and jobs in demand as green. This limits studies to a few key industries while neglecting enabling industries, such as construction. Another approach defines jobs as green, of which some increase in demand, emerge during the transition, or undergo a skill change (Dierdorff et al., 2011[4]). Many skills anticipation mapping exercises focus on occupations, by identifying green and green-adjacent occupations before identifying the skills that are involved (OECD, 2023[2]).

Focusing on skills can help understand the complexity of the green transition within jobs, but such approaches are limited by the availability of data. Few studies explicitly classify skills as green. Another approach is to identify skills that are used more intensively in occupations according to specific green vs. non-green tasks. Using such an approach, a study identified 14 tasks across four groups (Table 1), with most skills identified with engineering and technical skills and operation management, rather than monitoring and science (Vona et al. (2018[5]). Such an approach to identifying green skills helps identify skills that are both in demand and transferable, while also considering occupations that may not have inherently green tasks but relevant green skillsets, such as auditors (Tyros, Andrews and de Serres, 2023[6]). For instance, landscaping and city planning skills can support sustainable urbanization and therefore associate green skills (Sern, Zaime and Foong, 2018[7]).

Table 1. Green skills and groups

Skill Group	Engineering and technical skills	Operation management	Monitoring	Science
Definition	*Whole spectrum of the technology life cycle, including design, development, and installation.*	*Organization of green activities and managing the integration of phases of the product cycle.*	*Legal, administrative, and technical activities necessary to comply with regulatory standards.*	*Innovation and technological development in a more general way than engineering.*
Tasks	Engineering and technology	Systems analysis	Law and Government	Physics
	Design	Systems evaluation	Evaluating Information to Determine Compliance	Biology
	Building and construction	Updating and Using Relevant Knowledge		
	Mechanical	Provide Consultation and Advice to Others		
	Drafting, Laying Put, and Specifying Technical Devices, Parts, and Equipment			
	Estimating the Quantifiable Characteristics of Products, Events, or Information			

Source: Adapted from Vona et al. (2018)

The increasing automation and digitalisation of economies driven by information and communication technologies (ICT) has reshaped what skills are needed across occupations (OECD, 2022[3]). Digital skills and technologies spread beyond manufacturing

and mechanical sectors to the broad service and health care industries. A strong base of fundamental competencies such as digital literacy (computer, smart phones, tablets, internet and other new day-to-day technologies) and mathematics – and particularly STEM fields - are crucial to gaining more specialised skills later.

The workforce of the 21st century will need to boost soft skills. Soft skills will be increasingly required to support both green and digital transitions but also the growth of the service sector across many countries. There is a wide range of skills required for the green transition, for instance, ranging from those needed specifically for green jobs as well as transformational and life skills, combining hard industry skills with soft skills (Kwauk and Casey (2021[16]). Soft skills describe intangible intra- and inter-personal capabilities, including socio-emotional competencies necessary for the social environment of the workplace and personal development (Robles, 2012[8]; Kechagias, 2011[9]). They are more than people skills and include personal and career attributes. A mix of technical and cognitive skills is required by digital jobs (OECD, 2022[3]). With the speed of technological innovation, a digital workforce must be adaptable, collaborative, able to communicate, think critically, solve problems, and embody awareness and self-direction (van Laar et al., 2017[10]). Similarly, many of the green skills identified require soft skills, such as leadership, communication, or people management skills. This is why the most important workforce skills identified globally are soft skills, and many employers specifically search for soft skills in candidates (IFC, 2019[10]; LinkedIn, 2019[11]).

What is the current global need for skills?

Skills supply and demand are in flux in OECD countries, generating shortages and surpluses. Evidence suggests that there are shortages in content skills (e.g. reading comprehension, writing, speaking and active listening), process skills (e.g. critical thinking and active learning) and complex problem solving and social skills (e.g. instructing, social perceptiveness) in OECD member countries (OECD, 2017. Evidence of shortages have also been documented in computers and electronics, education and training, mathematics and science fields (OECD, 2017). Compared to 2012 levels, training, education and medical knowledge continue to be in large shortage. On the other hand, in certain skills like digital and cognitive skills, shortages exists but the gap has decreased since 2012 (OECD, 2022. At the other end of the spectrum, skills related to business processes, resource management and communication and are complementary skills to automation, are now in surplus across OECD countries. Since 2010, social skills, law and public safety knowledge have shifted from being in shortage in OECD countries to being in surplus (OECD, 2022.

There is a fast-growing demand for digital skills worldwide. Digital skills are the capacity to use technology to accomplish required tasks. Basic digital skills include searching the web, writing emails, and managing word processors, while advanced digital skills may encompass graphic design and data analysis (ILO, n.d. Across OECD countries, the demand for advanced data analysis skills, programming skills, and social media skills has grown at a faster rate than for the average skill in these labour markets (OECD, 2022.

Looking into the future, the skills that will be most in demand are transversal skills that can be used across occupations. Analytical thinking and creative thinking are predicted to continue being the two most important skills for workers in the near future. The skills growing most in importance are cognitive skills, followed by creative thinking and technology literacy

(WEF, 2023. The fast-paced automation of work requires workers to adopt these skills to manage the digital and automated components of their job.

Following the COVID-19 pandemic, occupations in the manufacturing, construction and transportation sectors are facing acute labour shortages. Across OECD countries, the manufacturing industry had the highest job vacancy rate by the end of 2021, with the construction sector also suffering from a large job vacancy rate. These shortages have increased significantly since the COVID-19 pandemic . It is predicted that the European construction sector will need 2 million more workers by 2030 (Mella Werna, 2023. Urban regions in many countries, including the United States of America, New Zealand and India, are facing shortages of bus drivers. This is related to the difficult work conditions and low pay of this kind of occupation (ILO, 2021.

In the EU, the occupations suffering the highest shortages are in the building sector, followed by the metal and machinery industry, health professionals, ICT professionals, and transportation occupations (WEF, 2023. Occupations in many of these sectors will be heavily impacted by the green transition. This may mean that skills and knowledge regarding sustainability and the greening of these sectors may become more highly demanded. There is a global shortage of ICT workers, but this is particularly the case in EU countries where the labour availability in the ICT sector hasn't reached the level demanded by the digital transition (Causa et al., 2022.

For many years there has been a shortage of health professionals, but this gap has been decreasing. Globally, there was a shortage of 18 million public health workers in 2013, which decreased to 15 million in 2020 and is predicted to shrink to 10 million workers by 2030. In the health and care sector, 15% of workers are international migrants (WHO, 2023).

There is insufficient integration of young people in the labour markets of many low- and middle-income countries. While OECD unemployment rates are at their lowest since 2021, the unemployment rates of many low- and middle-income countries are higher than before the pandemic. Southern Asia, Northern Africa and Eastern Europe continue to suffer with a youth employment deficit five to ten percent larger than 2019 levels (WEF, 2023.

Globally, labour market frictions have a particularly negative impact on highly skilled youth. In the African continent, labour market mismatches increase with level of education. 35% of those with tertiary degrees are over-skilled compared to 30% of those with secondary education and 11% of those with primary education (AfDB, 2020. Furthermore, there is a lack of jobs for young Africans with tertiary education . This is a global trend, with countries in Eastern Europe, the Middle East, sub-Saharan Africa and South and Southeast Asia representing high levels of over-skilling and overeducation (AfDB, 2020. Globally, youth also face higher rates of labour informality than adults, making them particularly vulnerable to income insecurity and poverty (ILO, 2020).

In most regions of the world, businesses have a negative outlook on the future of talent availability in their global region. In East Asia and the Pacific, Europe, Latin America, North America, South Asia and the Western Balkans, there are more businesses that believe talent availability will worsen until 2027 (WEF, 2023).

Difficulties in filling labour market gaps internally. In 2022, the EU experienced its lowest unemployment rate of 6.2%, and its highest employment rate among the 20-to-64 age group, at 74.6%. Despite this, the EU labour market continues to experience labour shortages. In the same year, the EU job vacancy rate was at a record high, reaching 2.9% (ESDE, 2023). These predicted demographic trends and labour market frictions point toward the need to look for skilled workers beyond national borders.

Demand in skills is outstripping supply, leading to shortages

Digital and green transitions require highly educated workers (ILO, 2022[12]). Industries supporting such transitions such as construction and manufacturing already face shortages, including carpenters, plumbers, and electricians. With a skills gap expected to grow to seven million in 2030, the gap is especially acute for solar, wind, and biofuel jobs (BCG, 2023[12]). In OECD countries, demand for jobs with green tasks is rising faster than overall labour demand (OECD, 2023[13]). Vacancies are especially found in manufacturing, professional, scientific, and technical activites, and wholesale and retail. However, almost 60% of organisations surveyed expect that skill gaps limit the ability of businesses to transform (WEF, 2023[14]). Analytical thinking, creativity, and technological literacy were considered across industries as increasingly important. Due to the pandemic's impact on fundamental literacy and numeracy, fewer than half of the world's young population are expected to achieve a comprehensive set of skills (ILO, 2022[15]; The Education Commission and UNICEF, 2022[17]).

Economies of GCC countries need designing, planning, and skills to manage the green transition. In Gulf Cooperation Council (GCC) countries, green skills in demand can be primarily found in higher-level occupations and operations management positions. More than half of workers surveyed argue that green skills are important to the future of their career (PwC, 2023[26]). While engineering and technical skills are becoming more important across professions, employment in analytical, planning, and supervisory roles are experiencing great demand (PwC, 2023[26]; Misk Academy, 2020[27]). Engineering degrees are the second most sought after qualification (Bayt.com and YouGov, 2023[28]). Product and web designer, automation professionals, and supply chain experts are roles in need in the UAE (LinkedIn News Middle East, 2023[28]; Abbas, 2023[29]). The future workforce needs hard business skills like Lean Six Sigma and CRM, next to language and communication skills in English and Arabic (IET, 2022[30]; IET, 2023[31]; Misk Academy, 2020[27]). Despite the need for these skills, employers in Oman face difficulties hiring national professionals and technicians, many because of a lack of skills (ILO, 2022[32]). Around half of middle eastern CEOs surveyed argued that labour and skills shortages disrupt their profitability in the next ten years (PwC, 2023[14]). Almost three quarters of them plan to upskill their workforce to confront industry challenges.

The potential of digital industries is being hampered by the lack of skills in demand by the private sector in GCC countries. Three quarters of the surveyed workforce stressed that digital skills are a top priority for their careers in the next five years, more than the global figure of 57% (PwC, 2023[26]). [JG1] Computer science and information technology degrees are among the top five sought after academic qualifications across the Middle East, with business management, engineering, and ICT in the GCC countries (Bayt.com and YouGov, 2023[33]). However, only 40% of students follow high-demand disciplines in Saudi Arabia (Misk Academy, 2020[27]). The top skills of the Gulf workforce are often less relevant and specific to the hard technical needs of the private sector, especially for emerging technologies like big data and cloud computing. Employers look for concrete technical skills like statistical analyses and data mining, algorithm design, programming languages, cybersecurity, and other industry-specific

software (Bohsali et al., 2017[45]). Much is due to the limited academic and professional environment for digital skills and lack of interest, while the low quality of education is an issue in some countries like Saudi Arabia (Bohsali et al., 2017[33]; Rivera, Azam and Ajwad, 2022[34]). At least in the UAE, 77% of IT decision-makers view this shortage as a threat to their business (Equinix, 2022[34]). This shortage may be holding back the digital sector in the GCC that already experiences fewer jobs than comparable countries, mostly filled with expatriates (Bohsali et al., 2017[33]). Skills are urgently needed considering that data analytics, cloud computing, and AI technology are priorities for Omani engineering companies in the upcoming years (IET, 2023[31]). About a quarter of senior decision-makers believe that labour and skill shortages will continue to exist in the UAE (IET, 2022[15]).

The future workforce of Gulf countries must master soft skills to retain their relevance to the private sector. Many of the top skills identified as essential for a future workforce are soft skills. Some research indicates that the soft skills gap is more significant than the digital skills gap in Saudi Arabia and the UAE (Chaaya, Abou Hamad and Beyrouthy, 2019[43]). Abilities like problem-solving, leadership, communication, and creativity are mentioned by employers and decision-makers as priorities, often ranking higher than specific technical or engineering skills (IET, 2022[30]; IET, 2023[31]; British Council, 2018[40]). Communication skills in both English and Arabic, the ability to work in teams and under pressure, and to lead people are highly sought after in the MENA region (Bayt.com and YouGov, 2023[41]). Yet, employers struggle with finding candidates with adequate soft skills. In the UAE and Oman, about 40% senior engineering decision-makers lament a lack of soft skills among applicants (IET, 2022[30]; IET, 2023[31]). Behavioural skills like accuracy and punctuality and soft skills were hard to find among nationals, mostly due to the short supply of skills, at least in Oman (ILO, 2022[32]). The lack may orginate from an education system in the MENA region that emphasises rote memorisation and a public sector that does not demand soft skills (Devarajan, 2016[42]). In some countries, fewer firms struggle with finding the needed skills among foreign workers (ILO, 2022[32]).

Skills shortages are not limited to high-income countries. The tech skills gap already affects four in five African organisations in the previous years (Sound, 2023[18]). Many African markets compete for talent in the internet economy and beyond. About 65 percent of recruited employees in African companies were required to have at least a basic level of digital skills (IFC, 2019[14]). Across skill-level, demand exceeded supply, as four in five African organisations reported to be affected negatively by a lack of tech skills in 2022 (Sound, 2023[18]).

Migration as a global solution

Countries have invested in education and upskilling to address labour market challenges. Per capita government expenditure on education has increased worldwide in the last decade, particularly in low-income countries (LIC) and upper middle-income countries (UMIC) (UNESCO/World Bank, 2023. However, TVET enrolment remains very low in most world regions, particularly in Africa, the Middle East, South Asia, and Latin America (World Bank, 2018. Furthermore, TVET systems in many low- and middle-income countries are ill-equipped to address labour market needs due to insufficient funding, teachers who are lack the necessary pedagogical skills and inadequate support to students in the school-to-work transition (Levin et al., 2023. In OECD countries, job vacancies remain high following the COVID-19 pandemic, despite low levels of unemployment (OECD, 2022. More and better

education is insufficient to address these labour market gaps. More workers with the right skills are needed.

Incentivising female labour force participation can also be a tool to solve these challenges. Investment in the education of girls and women provides 10% returns to human capital and economic growth, higher than the returns on boys and men (UNESCO/World Bank, 2023. Higher levels of education among girls and women may mean greater participation in mid and high skill employment. While the gender gap in educational attainment has decreased substantially since the 1990s, the gap in labour force participation rates between men and women aged 15 to 24 has grown in the same time period (ILO, 2018. However, overall female labour force participation rates have remained stagnant during the past three decades. More cultural and institutional policies must be adopted to bridge this gap.

But local training and education is not enough – international mobility has become essential in addressing skills needs. One reason is that not all skills are available within a country or even a region. And carrying-out reform in education and training systems is a medium-term solution, as skills produced through such means would not be available for years. In many cases, skills needs are time sensitive. Secondly, mobility and exchange across countries and regions leads to accumulated learnings itself, as cultures and socioeconomic systems have their own specific way of working and engaging in socioeconomic systems. Third, the cost of labour, and the aspirations and preferences of workers may shift within a country. Importing labour may be necessary to fill certain shortages in certain sectors.

High income countries are expected to continue facing a decrease in their working-age population in the coming decades. The European Union's (EU) working-age population (20-to-64-year-olds) has been declining since its peak in 2009 and is predicted to decrease by another 29 million people by 2050. In most EU countries these demographic changes will have between a 0.2% and 9.1% negative impact on GDP (ESDE, 2023. This extends to other non-European OECD countries. For example, Japan has long been facing a decline in its working-age population (15-to-64-year-olds) which could further lose another 20 million people by 2050 (OECD, 2018).

Migration has long been viewed as a solution to job shortages. Many foreign worker schemes were set up during and following the Second World War, including the Bracero Program between Mexico and the United States as well as the German *Gastarbeiterprogramm* with Southern European and North African countries. Therefore, migration has, for decades, been viewed as solution to worker shortages. Accompanying this mass migration of workers are fears of brain drain. This is because emigration rates from low- to high-income countries are higher among those who are skilled (Wasti, 2018. However, labour migration can be circular in nature, where workers return to their countries of origin with more income and human capital, and diasporas also have a role to play in increasing the resources available to communities in their countries of origin.

The stock of international migrants has grown at an exponential pace in the past three decades. The current international migrant stock is more than 280 million people, an increase of more than 127 million people since 1990 (Figure 1). Migrants have also increased as a percentage of the world's population, from 2.9% in 1990 to 3.6% in 2020. In 2019, there were

169 million migrant workers, which made up 62% of the international migrant stock (IOM, 2021).

Migrants are more educated than ever. Global education levels have increased, including in low- and middle-income countries. World literacy and school enrolment rates have drastically increased in recent decades (Roser Ortiz-Ospina, 2016. Migrants are more likely to have higher education levels than non-migrants. Those with post-secondary education are more likely to plan to migrate than stay in the country of origin. In addition, high-skilled migrants have the added incentive of higher wage differentials if they choose to migrate to a higher income country compared to low-skilled migrants (OECD, 2017.

Countries may have to look internationally to address their labour needs in the green transition. If the green transition is to be achieved, 25 million jobs could be created and only 7 million lost globally. Of the workers who lose their jobs, 5 million would be able to continue their occupation in a different industry in the same country. Therefore, training and reskilling will be required to meet the needs of the 20 million new jobs created, overall (ILO, 2019. OECD countries don't have enough workers to fill these labour gaps and will have to look beyond national borders to address these. Some have already begun doing this as is the case of Germany who signed a memorandum of understanding with India in early 2023 to address its need for workers in the green transition (Huckstep, Dempster Kenny, 2023.

Technology is accelerating information and reducing the cost of international migration. Access to the internet has a direct correlation with increased desire and preparation to emigrate. The effect of the internet on desire is particularly strong among low- and lower-middle income countries (Grubanov-Boskovic et al., 2021. Moreover, decreased costs of air transport facilitate the possibilities of international migration.

But there continue to be obstacles toward integration of migrants and addressing labour market shortages. Given the aforementioned demographic trends and labour market situations, it is essential that labour migration governance address the right needs for skills. There is insufficient inclusion of labour market demands in migration governance policy making. In addition to this, formal and informal obstacles to employment, including inadequate skill and qualification frameworks, lack of information on the labour market, legal restrictions and discrimination, prevent migrant workers from filling those identified labour market gaps (ILO, 2018.

Governments looking to fill labour shortages through skilled migration need to prioritise efficient and responsive credential recognition systems. Across the board, credential recognition systems are not up to date with the national labour market needs nor are they sufficiently efficient to be a useful tool to address these. The credential recognition process may take multiple years, delaying migrants' access to skilled work, with some even choosing to never complete the recognition process (Hawthorne, 2013. In most EU countries, the recognition process is highly fragmented which creates more obstacles for migrants to achieve skills recognition. Context-specific formal, informal, and non-formal learning must be included in these systems to ensure that the totality of migrants' skills and experiences are valued. However, this is insufficiently done (IOM, 2013.

Capacity and knowledge on migration governance is insufficient. In line with the first objective of the Global Compact on Migration (GCM), there needs to be better data collection

efforts. According to the IOM, only 33% of countries disaggregate migration data and only 18% disaggregate labour data. Only 6% of African countries disaggregate migration data compared to 32% of Asia-Pacific countries, 52% of countries in the Americas and 80% of European countries. Regarding disaggregated labour data, only 9% of Asia-Pacific countries confirm they do this, compared to 20% of countries in both Africa and the Americas and 25% of countries in Europe (IOM, 2022). Therefore, all world regions have space to improve.

Governments need to further engage with tools available to increase their country's attractivity to skilled migrants. Many tools have been developed that would greatly benefit governments in choosing the most appropriate migration policies. For example, the OECD's *Indicators for Talent Attractiveness* can help governments in attracting high-skill migrants. Furthermore, entrepreneurship and start-up visas have become popular ways to attract foreign investment and innovation through talented migrants. The European Union (EU) revised its "Blue Card" in 2021 to facilitate entry to highly skilled workers. Germany and Lithuania are among the countries that have capitalised on this development to increase migration pathways for skilled migrants in targeted sectors (The Federal Government of Germany, n.d (OECD, 2022.

When addressing national and international labour shortages, it is important that governments minimise "brain drain". "Brain drain" occurs when the emigration of high-skilled workers causes a human capital loss for the country of origin. This phenomenon can be counteracted by creating pathways for circular migration. This would foster "brain circulation" as migrants bring the human capital gained during migration back to the country of origin. Crucially, there must be systems which recognise returning migrants' human capital gained to adequately reintegrate them. In parallel, there must be investment in education and training in the country of origin to ensure that labour market needs are met (OECD, 2017.

What novelty do skills mobility partnerships bring?

Skills Mobility Partnerships (SMPs) and Global Skills Partnerships (GSPs) are solutions to these labour migration governance challenges. The International Organisation for Migration (IOM) established the 8 principles which govern the Skills Mobility Partnerships, and the Centre for Global Development (CGDEV) conceptualised the Global Skills Partnership. These partnerships are more robust than typical foreign worker programmes. They share many common features such as creating mobility pathways, addressing labour and skills needs, capacity building, local development and cooperation between countries involved. Both models also advocate for a multi-stakeholder approach including a variety of organisations from the public and private sectors, benefiting countries of origin, destination and migrants themselves. The EU Commission has prioritised this by creating the EU Talent Partnerships which follow the GSP model (Di Salvo, 2022.

SMPs and GSPs differ greatly from traditional migration schemes, which focus solely on the labour market of the country of destination. Most common are foreign worker programmes which are established by the country of destination. These open migration pathways for workers from other countries with the skills and professional experience in occupations that lack labour in the country of destination. They don't usually offer skills

development for participating individuals and don't directly add to the development of the country of origin.

Global Skill Partnerships (GSPs) aim to create migration pathways for mid-skill professions. More labour migration pathways need to be created for the necessary occupations and skill levels. In the EU, over 50% of the occupation shortage is in high-skilled employment and only around 10% of the shortage lies in low-skilled jobs (OECD, 2022. Despite just under 40% of the EU occupational shortage being among middle-skilled occupations, there are many seasonal worker programmes for low-skilled jobs but very few for middle-skilled employment (OECD, 2022.

This paper reviews Skills Mobility Schemes (SMSs) more broadly. That is, labour migration programmes which involve a skills development aspect that helps address labour market demand in the country of destination. The inclusion of a skills development component differentiates skills mobility schemes from traditional foreign worker programmes, in which mobility pathways were created without much focus on specific skills. The mobility aspect of SMSs can include a variety of objectives. The most common is reducing labour shortages in the country of destination. Tied with this, SMSs can also aim to reduce labour shortages in the country of origin, regularise circular migration pathways and improve cooperation between countries along popular migration corridors.

When identifying Skills Mobility Schemes (SMSs), we are specifically looking for 3 components:

4. That there be work-specific skills development offered to participants by the scheme.
5. That there be one or multiple skills or sectors targeted in the scheme.
6. That there be partnerships and cooperation in the creation of the scheme, including government involvement.

Skills Mobility Schemes (SMSs) differ from much narrower Skills Mobility Partnerships (SMPs) and Global Skills Partnerships (GSPs). Both SMPs and GSPs include well-defined components for cross-country partnership, development, skills recognition, and funding of programmes. SMSs are not categorised in such detail, being defined only for their skills development and mobility elements. This opens the discussion to a wider array of schemes, their design and implementation components, challenges and lessons learned. Therefore, the full range of mobility programmes to address skills shortages can be studied regarding their impact on development in countries of origin.

This paper reviews migration schemes from around the world, deconstructs their different components and the partnerships they require, and ultimately asks whether they are fulfilling greater objectives related to development. Section 2 provides an overview from a database developed for this paper on 56 migration schemes from around the world, section 3 details each component and stakeholder involved in the creation and implementation of these schemes, section 4 analyses the challenges, lessons learned and missed opportunities in skills mobility schemes, and lastly, section 5 evaluates the current and potential development impacts that Skills Mobility Schemes (SMSs) can have on countries of origin.

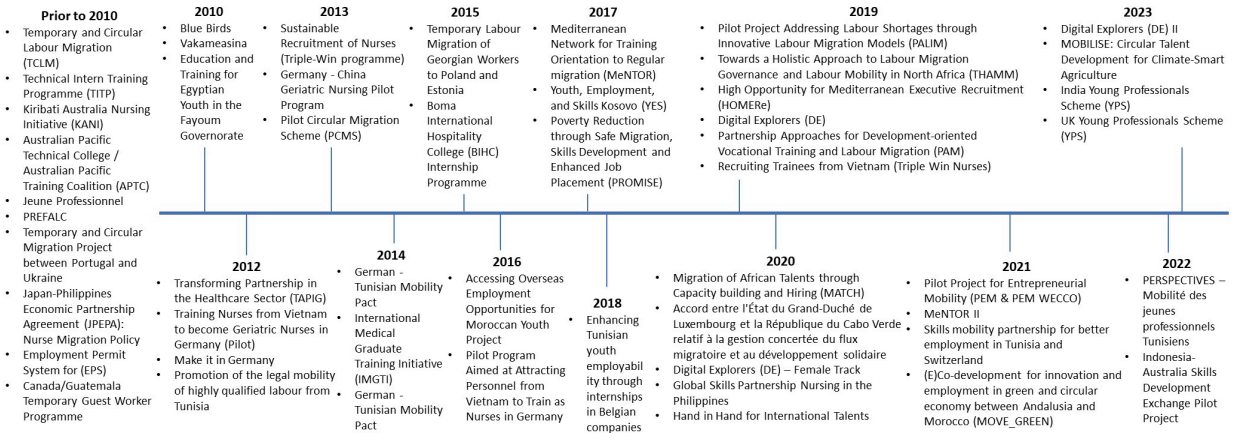
2 Overview of migration schemes

from around the world

This paper is based on an empirical analysis of broadly defined skills mobility schemes. To build a database of SMSs, internet searches, interviews with experts and document reviews were conducted, for schemes that existed between 2010 and 2023.

The resulting database consists of 56 schemes operating between 2010 and 2023. Out of the 56 SMSs, 13 schemes operate within the same continent and 43 schemes operating inter-regionally. Most schemes occur between Europe and Africa, specifically North Africa, as well as with Asia. There is also a growing number of schemes occurring in Oceania and the Pacific.

Figure 1: Skills Mobility Schemes over time, by start date



Skills mobility schemes are wide reaching, taking place in 82 countries across six continents. The countries of destination that participate in most SMSs are Germany (16), Belgium (6) and Italy (5). The most popular origin countries across the database are Tunisia (13), Morocco (9), India (7), Viet Nam (7), Nigeria (5), and the Philippines (5). Therefore, it is in Europe, Africa, and Asia that SMSs are most present. Beyond these three continents, SMSs have also been used for many decades in Oceania and continue to be a tool for migration governance in the region.

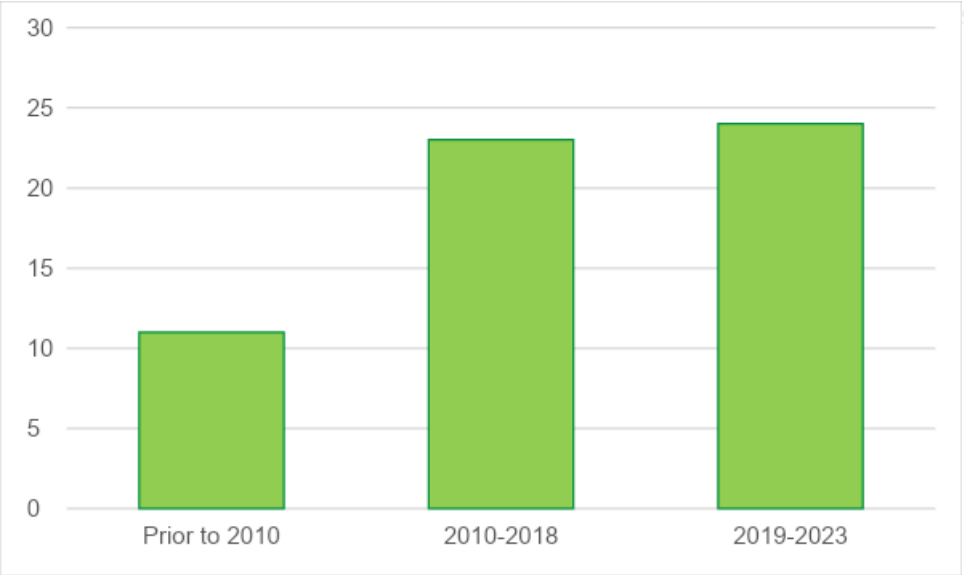
SMSs are most commonly interregional, representing 43 of the 56 schemes, while regional schemes only account for the remaining 13. Among the interregional schemes, the destination countries are typically in Europe, while countries in Africa and Asia make up most of the countries of origin. However, not all SMSs follow this pattern. For example, the Indonesia-Australia Skills Development Exchange Pilot Project which creates a two-way labour migration corridor between Australia and Indonesia for relevant professionals.

Figure 2: Skills Mobility Schemes by region of origin

Figure 3: Skills Mobility Schemes by region of destination

SMSs have been growing at a fast pace in recent years. In the last five years (2019-2023), 24 schemes were created, more than the number of schemes created between 2010 and 2018 and prior to 2010. This demonstrates an increased interest in SMSs to manage labour market mismatches and shortages, as well as a tool for development and cooperation. The European Union (EU) has played a role in this fast-paced growth, with large funding for its EU Talent Partnerships. However, they are not the only ones as this is a truly international phenomenon.

Figure 4: Start period of Skills Mobility Schemes (SMSs)



Source: Authors calculations.

Schemes range greatly in budget size and number of participants. Skills mobility partnerships (SMPs) are notorious for having a relatively small participant size given their large

budgets. Budgets for SMSs in the database can be as low as a few hundred thousand euros or as large as multiple million euros. The most expensive is the *Australia Pacific Training Coalition (APTC)* scheme, which has a budget of 125 million euros for the three years of its duration. Schemes become more expensive if they include cooperation and development initiatives, such as cross-country dialogue on migration governance or improvement in education and training quality in the country of origin. Participant sizes vary from eight (*Blue Birds*) to over 400 000 (Japan's *Technical Intern Training Programme (TITP)*).

What are the main objectives of skills mobility schemes?

The SMSs reviewed have two overarching objectives in common:

3. **Addressing labour market shortages in the country of destination**
4. **Creating pathways for safe and regular labour migration.**

In the first, labour market assessments must determine which skills shortages exist in the country of destination. Adaptation of skills recognition systems and partnership with the private sector are essential for this objective. In the second, policy, legislative, institutional, and regulatory frameworks of safe and regular migration must be adapted for scheme participants to be able to successfully migrate to the country of destination. Adapting pre-migration requirements, such as savings and skills recognition, to the participants of these schemes is an essential step for participants to be able to migrate to the country of destination. For many migration schemes, development in the country of origin is not a main objective, but they may include development components, such as knowledge transfer and capacity building (EMN, 2021).

SMSs typically target certain sectors, specifically healthcare, information and communications technology (ICT), business and entrepreneurship, hospitality and construction sectors. Regional and worldwide increasing demand and decreasing supply of professionals in these sectors may be the causes of this. Within the healthcare sector, there is a substantial and growing lack of nurses in many European countries. Germany and the UK have developed multiple SMSs to address this issue (De Raeve, 2022. In addition, the popularity of the information and communications technology (ICT) sector among SMSs is due to its fast-paced growth in both countries of origin and destination. Business & entrepreneurship, hospitality and construction are other sectors that are well established in countries of destination and hold great potential in countries of origin, making skills mobility schemes the perfect tool for cooperation.

Skills mobility schemes require the collaboration of various actors to be successful. In both countries of origin and destination, governments, public agencies, and private companies may be involved. The programme creation and implementation are most often done by the development or employment agencies of the country of destination. However, in some schemes, this undertaking is more equally shared between partner countries, and in others it may even be the private sector that is in charge. Ministries and public agencies of labour, education and development may then be involved to define labour market demands and skills recognition requirements between countries. Following this, private sector partners may be integrated.

Most skills mobility schemes have successfully addressed labour market shortages. Other common outcomes include improved public knowledge on safe and regular migration, capacity development in the country of origin, and connections with the private sector. The small scale of most schemes prevents an evaluation of the real development impacts of these. However, analysing the whole of this study's database allows for a better understanding of how to integrate development in the country of origin into the scheme's structure. During the COVID-19 pandemic many mobility schemes adopted a fully virtual or, when possible, hybrid experience which halted many of the positive outcomes predicted.

3 What are the fundamental commonalities across migration schemes?

Skills mobility schemes (SMSs) are complex programmes made up of a wide array of institutions and stakeholders. As they lie at the intersection of migration and skills development for work, they must operate within national and bilateral migration legislation, and labour market demands. This requires the collaboration of a multitude of stakeholders from the national to the local level and across the fields of migration, education, and employment. In this section, we will detail the numerous components and stakeholders necessary to successfully implement these schemes.

Skills mobility schemes operate within pre-existing pathways for regular migration. SMSs rarely create new pathways for regular migration. Instead, schemes operate using the visa options in countries of destination, with scheme authorities facilitating the visa process for participants. Given this, participants are often restricted to short stays in the country of

destination, using education visas for internship programmes up to six months. In the case of bilateral labour agreements (BLAs), participants may have more freedom with the duration and type of employment in the country of destination. For scheme participants in high-skill level jobs in the European Union (EU), the EU Blue Card can be used. Germany's new Skilled Immigration Act (2023) opens more labour migration pathways that can be used by German schemes (The Federal Government of Germany, n.d.

Bilateral Labour Agreements (BLAs) can be a very useful tool to establish skills mobility schemes. BLAs establish the goals, actions and responsibilities of governments along migration corridors. Specific principles that should be, but are not always, included in BLAs are human and labour rights, recruitment, access to information, migration status, occupational safety and health, social protection, employment contract and wage protection, governance structure, qualifications and skills, savings, remittances, and lastly return and reintegration of citizens of participating countries (UNNM, 2022). The principles of BLAs fit with those of skills mobility partnerships (SMPs) as established by the IOM (IOM, n.d).

Many skills mobility schemes follow a circular migration approach. Regarding whether participants stay in the country of destination or return to the country of origin, schemes can be divided into two categories. In the first category, the scheme is designed with the intention for participants to return to their country of origin following the internship or employment experience with a strict limit on how long participants can stay in the country of destination. The second category aims to fill labour shortages in the country of destination and therefore intends to retain the scheme participants in its labour market. The second option usually follows a longer scheme timeline than the first.

Skills mobility schemes prioritize labour and skills assessments in countries of destination over those in countries of origin. Some countries of destination follow the nationally established labour market needs (e.g., Belgium), while others use national lists for occupation shortages for new EU member state nationals (e.g., France). Germany incorporates additional criteria to the assessments in its schemes, such as demographic development and the future labour market landscape. Labour market assessments of the country of origin are usually only included if there are inter-governmental cooperation or development components to the scheme (EC/EMN, 2021. 41 of the 56 (73%) schemes in the database had labour market assessments for both origin and destination countries.

Scheme authorities must cooperate to ensure skills recognition processes are developed in both countries of origin and destination. Recognition procedures can be completed prior to departure or, in some instances, while the participant is already working in the country of destination. Credential recognition must occur at both ends of the corridor so that participants' certification awarded by the country of destination's training body is recognised by the country of origin. SMSs often work toward shortening skills recognition processes, especially in sector-specific SMSs (EC/EMN, 2021. Germany's new Skilled Immigration Act (2023) includes an important component for skills recognition of two years of professional experience or a university degree obtained in partner countries, which SMSs will soon be able to use (The Federal Government of Germany, n.d.).

Moreover, credential recognition systems must be adapted to partner country contexts. Skills recognition systems must be context specific to ensure widely accessible use for skills matching of migrants. This can include addressing education system structures and levels of informality in each country. All stakeholders involved must be aware of the existence of the recognition system and must be able to trust its quality, cost effectiveness and accessibility. There must be sufficient and affordable skills recognition providers for both employers and prospective employees. In some instances, sector-specific recognition processes may be necessary (Braňka, 2016). For example, manufacturing, construction, ICT, safety and security,

financial, healthcare and education, most of which are SMS targeted sectors, often require sector-specific recognition (Braňka, 2016).

Sector-specific skills mobility schemes can create international partnerships across sectoral lines. All schemes are modelled around specific sectors or job types. These are most often chosen to address the needs of the country of destination. Scheme authorities will choose partner countries and sectors which correspond with the country of destination's labour market needs and characteristics, as well as other historical or cultural ties (MPF. ICT is the most common sector targeted but it is followed closely by healthcare, STEM, construction and manufacturing, hospitality and agriculture and food systems (Figure 5).

Figure 5: Share of Skills Mobility Schemes by Target Sector

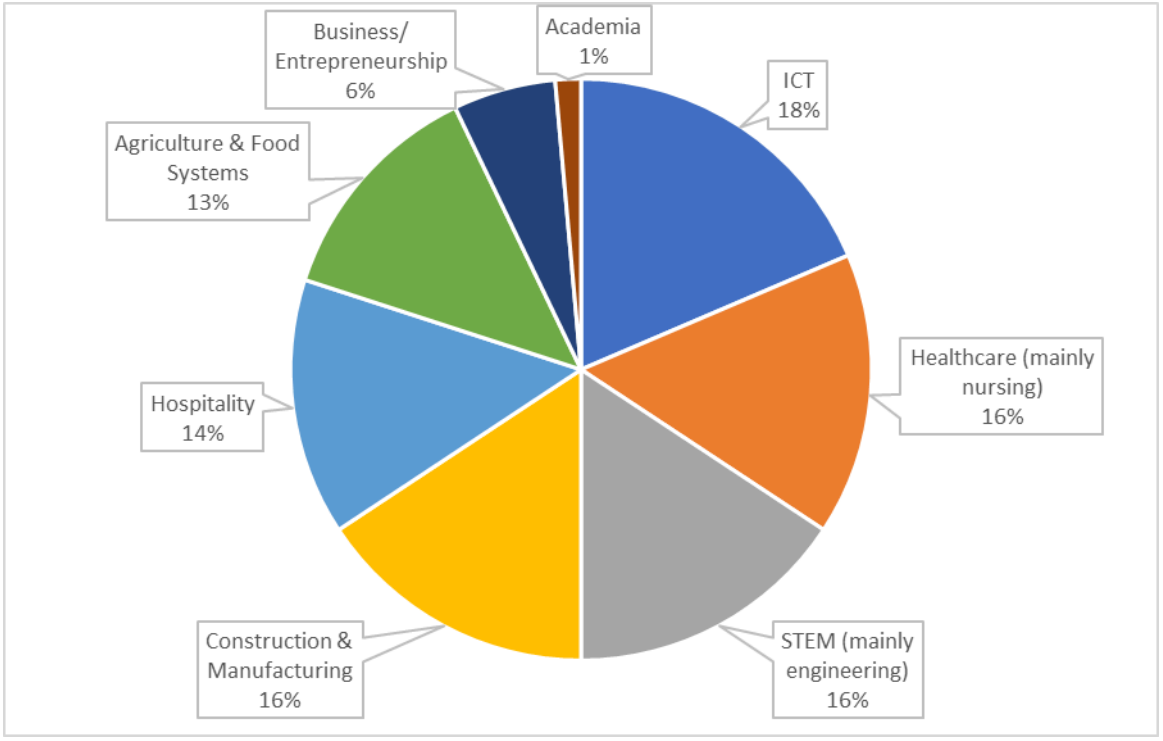
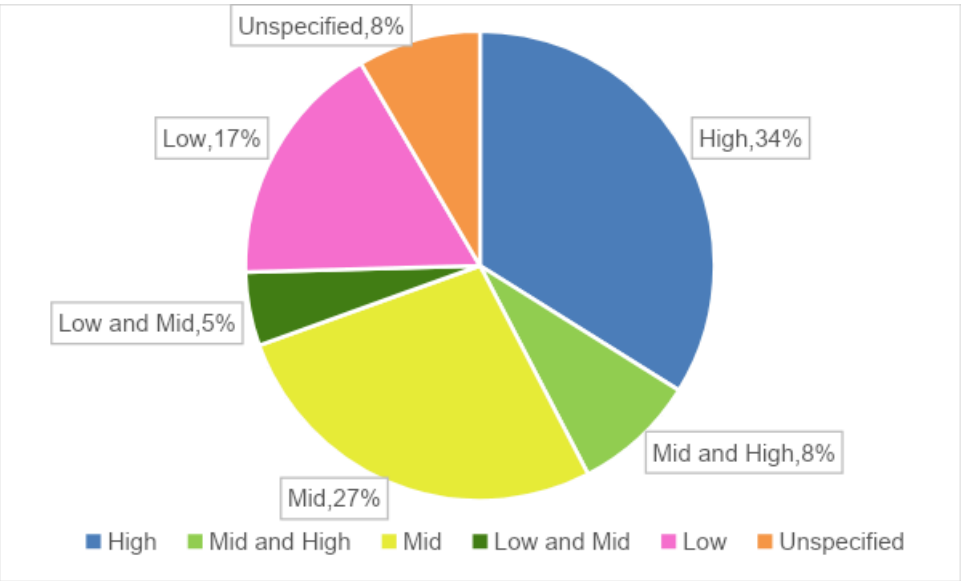


Figure 6: Share of Skills Mobility Schemes by Skill Level



Skills mobility schemes require suitable data collection and evaluation. Data access and sharing can foster social and economic development (OECD, 2019. The data harnessed and its infrastructure must be dependable, and there must be capacity to operate it effectively for shared benefits (Barbero McLaren, 2023. Given this, data sharing is yet to be used to its full potential for development worldwide (OECD, 2019. In the scheme's early stages, relevant data collected may be regarding labour markets, skills demanded, and education capacity. During the scheme, data collected can focus on participant and employer numbers, satisfaction, successes and challenges. Upon the scheme's completion, an evaluation is conducted to determine its overall success.

Data collection and analysis are central to building a business case for skills mobility schemes. Data regarding sectoral and labour market needs as well as participants' visa and moving costs, training, orientation programmes, and additional living expenses, compared to taxes paid and other economic contributions of participants can be useful to build a business case for SMSs (MPF. If the aim is to transition the SMS into a self-sufficient programme, building a business case for it is an essential step. Furthermore, this data collection and evaluation process can be used to determine the short- and long-term impacts of SMSs and their wider development outcomes.

Some skills mobility schemes have adopted a "triple win" or "quadruple win", which aims to benefit countries of origin and destination, the private sector as well as participants. Succinctly, a "quadruple win" requires that labour market needs be addressed in both countries of origin and destination, that added benefits be provided to the participating private sector companies, and that participants gain skills, professional and career development from the scheme. To build a "quadruple win", there must be cross-country and public-private partnerships from the conception of the SMS, as well as a strong feedback loop with all stakeholders, most especially with participants (EMN/OECD, 2022.

A dual track system may play a vital role in a "quadruple win" scheme. A two-track scheme divides participants in two groups: a "home track", where participants are trained for labour market needs in the country of origin, and an "away track", which includes skills specialisation for the country of destination's labour market, as well as language and cultural adaptation training (Clemens 2015. Two-track schemes can build training capacity in the country of origin and create a corridor for transfer of knowledge between partner countries. This

duality increases the supply of skills in demand in both the countries of origin and destination and fosters brain circulation between the two. However, only 5 of the 56 (9%) schemes in the database adopted a dual track system.

Pre-departure and post-arrival orientations are very common, utilised in over three quarters of the mobility schemes. Pre-departure and post-arrival orientations aim to prepare migrants for life, study or work upon arrival in the country of destination. In the case of SMSs, pre-departure orientation can either be solely cultural and linguistic exposure, or it can also involve additional occupation-specific training. In the case of additional occupation-specific skills training, a dual track system can be adopted. Therefore, participants can be trained for the specific needs of the labour markets in the countries of origin and destination. The benefits of pre-departure training in the country of origin are capacity building of education institutions and reduced costs in the same (Clemens 2015. Some schemes may also include a post-arrival orientation which builds on the training and information sessions conducted pre-departure.

Despite the circular nature of many SMSs, return and reintegration efforts are only a component of 56% of the schemes in our database. Return and reintegration is generally understudied and underfunded. However, return and reintegration policies have become more prominent in national agendas in both countries of origin and destination in recent years (OECD, 2020. The sustainable reintegration of returning migrants is essential for their personal and professional journeys. Reintegration plays a key role as to whether returning migrants find employment that matches their skill level and whether they choose to stay and share their gained human capital with their immediate communities or whether they choose to emigrate again. Support in finding employment for participants is the most common type of return and reintegration assistance offered by SMSs. Some schemes also offer stipends for a period of time following return, while participants look for a job. In the case of entrepreneurship-focused schemes, activities for business development are offered upon return.

Schemes have a role to play in helping participants achieve their long-term goals. Schemes can achieve this through employer-employee mentorship during the professional experience, which may improve employers' awareness of participants' integration needs, training and working contexts, as well as cultural sensitivities (Clemens, Dempster Gough, 2019. Skills recognition systems can be used not only to address short-term needs of individuals, such as finding a job, but also to address their long-term aspirations, which may include empowering participants with new career and learning pathways (Braňka, 2016. Lastly, communication with participants about their scheme experience, interests and goals will create an environment of trust between authorities, employers and participants, a necessity for the scheme's success (Friederici, 2022). Scheme authorities have a role to play in keeping up with participants after they have left the scheme to better understand the impact it had on them.

What are the existing areas of co-operation in the design of migration schemes?

Cross-government partnerships

Political and institutional buy-in is essential to successfully meet the objectives of SMSs. Political actors and institutions in both countries of origin and destination must want to develop a skills mobility scheme. Ease of mobility and support for migrant workers on both sides of the migration corridor are crucial. The most successful programmes will include the national governments of all countries involved, relevant public institutions and agencies, as well as local and regional governments. In situations where governments have not adapted migration systems to create regular pathways for the schemes, labour has failed to mobilize from the country of origin to the country of destination.

There must be a clearly defined agreement between the country of origin and country of destination governments or other relevant authorities, outlining the skills mobility scheme. Division of responsibilities, including programme design and implementation, cost, training provision, skills recognition, employers and employment conditions and terms, as well as implementation of Memoranda of Understanding (MoU) or other mobility agreements must be clearly established in the initial phase of the development of skills mobility schemes (Clemens 2015 (Clemens, Dempster Gough, 2019. The complexity of these schemes means that cooperation and collaboration between various public and private sector actors, as well as the migrants themselves, is key for their success. In doing so, SMSs can lay the groundwork for more well-rounded labour and migration policies in both countries of origin and destination.

Skills mobility schemes as tools to address labour market gaps hinge on the ability of education and employment institutions to collaborate on the skills matching process. Developing appropriate and successful skills recognition systems between participating countries lies at the core of this partnership. This requires buy-in from major stakeholders, such as employers' representatives, networks of career counsellors, employment services and workers' associations (Braňka, 2016. Skills recognition can be handled by many authorities, including international organisations (e.g., IOM and ILO), national labour or education ministries and agencies, and may even be supported by national development and cooperation agencies (EC/EMN, 2021. In the country of destination, relevant institutions must create skills and prior learning recognitions for participants, while institutions in the country of origin must agree upon methods for accepting the learning, training and professional experience earned by participants during migration.

The role of the private sector

The public sector must prioritise its partnership with private sector employers as they know what workers they need. Ideally, this collaboration occurs from conception to completion of the scheme. Successful skills recognition systems must include employers as key stakeholders, as it is them who know best what they need from employees (Braňka, 2016. In some schemes, private sector enterprises simply provide already published internship, traineeship, and employment opportunities to scheme authorities, who then help participants apply for these. In others, scheme authorities form partnerships with specific companies in the target sectors and develop the employment opportunities solely for scheme participants, with additional mentorship and skills development components.

Data cooperation between countries and between public and private sectors may require capacity building and fostering of trust between all stakeholders involved. Data sharing policies usually focus on public-sector data, with a minority of policies addressing private-sector data (OECD, 2019. In cross-border projects where partner countries have differing degrees of capacity to collect, process and share data, there must be agreed upon ethics to build trust in multiparty data sharing (Barbero McLaren, 2023. As schemes are developed based on prior assessments of the labour market needs of all partner countries, barriers, including insufficient resources and data sharing capacity, may inhibit the development of an evidence-based skills mobility scheme. This makes capacity building regarding data cooperation an important component of successful SMSs.

Creating dialogue across all stakeholders

Skills mobility schemes ensure mutual benefits and incentives for all stakeholders. Some SMSs centre themselves around the concept of a "quadruple win", being beneficial for countries of origin, countries of destination, migrants, and employers (EC/EMN, 2021. However,

in many instances, it is the country of destination that conceives, designs and implements the scheme, either completely on its own or holding much more responsibility than the country of origin. Including countries of origin as equal partners will ensure that they feel ownership over the scheme which, in turn, will have a positive effect on the sustainability and flexibility of the scheme long term (MPF, 2020. One way of achieving this is creating spaces for dialogue and listening to all stakeholders, including migrants and employers (MPF, 2021. The potential, capacities and interests of all stakeholders are seen as key factors for what role they will play and the direction that the scheme will follow (MPF, 2020.

There is a fundamental need for capacity to implement and run, as well as ensuring a territorial and local dimension to such partnerships. Local government, education, training, and employment institutions can be one way to ensure schemes create jobs and development at the local level (MPF, 2020. In the selection of candidates, pre-departure orientation and return and reintegration processes, local employment services and migration advisory centres play an important role in this process. The potential for local development outcomes. The *Mediterranean Network for Training Orientation to Regular migration (MENTOR) II* scheme, for example, is run by the Municipality of Milan (MPF, n.d.

4 Where are the gaps on the implementation of skills mobility partnerships?

There are many gaps in the implementation of the principles of Skills Mobility Partnerships (SMPs) and Global Skill Partnerships (GSPs). Both SMPs and GSPs advocate for a multi-stakeholder approach but only a fraction are truly co-created initiatives. Almost all programmes are designed and funded by countries of destination. Consequently, countries of origin are rarely given sufficient authority over the schemes. Mismatch of the legal and institutional frameworks between countries of origin and destination is an additional obstacle to equal partnership over these schemes. Addressing the demands of labour markets in both countries of origin and destination remains a challenge, principally because skills are inadequately defined and matched (Chirita and Stefanescu, 2020.

Development in the country of origin remains insufficiently addressed in skills mobility programmes. Currently, these schemes are not sustainable or scalable. They are very expensive per capita and due to the complicated nature of most migration systems; it is hard to manage more than a few dozen participants. So far, there has been insufficient use of business cases to advocate for mutual benefits for all stakeholders involved. Moreover, the schemes suffer from a lack of monitoring and evaluation and therefore an unclear measure of success (Chirita and Stefanescu, 2020. While capacity building and local development are aims of both SMPs and GSPs, the small scale and insufficient ownership by the country of origin in most of these schemes, mean development in these remains insufficiently included in the scheme design and studied following the scheme's closure. Fears of "brain drain" in countries of origin mean development must be further prioritised in skills mobility programmes.

Political and institutional buy-in as well as partnership among all relevant stakeholders are key for a scheme's success. Lack of stakeholder involvement, specifically public institutions and employers has been cited as one of the main reasons why SMSs have not been scaled up. Successful SMSs must prioritise stakeholder participation and dialogue and address the needs of employers as well as participants' aspirations and career plans (EMN/OECD, 2022. This can be done by creating open spaces for dialogue and having an advisory board with representatives from all stakeholders that is regularly consulted before, during and following the scheme's duration (Stefanescu, 2020.

Building public-private partnerships remains challenging for many skills mobility schemes. Public-private cooperation is an essential component of SMSs. Employers know what skills and workers they need, and therefore collaborating with them means the necessary skills are targeted in SMSs. While cooperation between academic or training institutions and private companies has already improved, this remains one of the biggest challenges for many SMSs (MPF, 2022 (IOM, 2022; Khartoum Process, 2022). Understanding the private sector's motivations and mindset when participating in skills mobility schemes is key to harnessing their long-term participation and support. Most schemes have not been scaled up or become self-funded due to insufficient partnership with the private sector (Stefanescu, 2020.

Being flexible and building trust between stakeholders are key to creating successful SMSs. Being able to adapt to time constraints, challenges in the migration process and even global events, such as the COVID-19 pandemic, is key to ensuring the scheme meets its goals (Stefanescu, 2020. Therefore, a strong line of communication between stakeholders throughout the duration of the scheme must be created. When this doesn't happen, as was the case with the Digital Explorers' participating talents and companies who expressed changing and unmet expectations during the course of the scheme, levels of trust degrade in relation to programme organisers (Friederici, 2022).

Consistent monitoring and evaluation (M&E) are essential. Evidence-based analysis and reflections of previous schemes have already determined the structure of newer schemes. The key challenge is that analysis of data collected, and reports produced thereafter can take a long time. As many schemes have follow-up programmes in the year immediately after their completion, evidence-based evaluation and lessons learned cannot be applied to the immediate follow-up. Spaces for dialogue to share challenges and lessons learned between programme authorities and governments can be useful in addressing this issue (Stefanescu, 2020.

Using these frameworks of monitoring and evaluation, a measure of success must be

determined for skills mobility schemes. For example, some schemes may want to achieve maximum numbers of participants, while others may want to focus on forging new mobility pathways for participants and private-sector partners. The *Digital Explorers* scheme had originally aimed for 50 participants but achieved a maximum of 30 participants in the first two tracks. However, they have been very successful in creating migration pathways between Lithuania and Nigeria and fostering a culture of openness between Lithuanian enterprises and the Explorers (Friederici, 2022).

Building upon frameworks for evaluation and measures of success, SMSs must build a business case for themselves. A business case plays an essential role in harnessing political and institutional backing of skills mobility schemes. However, insufficient schemes have made openly available business plans. The *Digital Explorers* scheme has published a Value for Money report where they argue that through the taxes paid in Lithuania and the FDI in Nigeria, the scheme has already paid for itself (Ivanovas et al., XX).

Credential recognition and migration systems must be adapted to skills mobility schemes. Many schemes experienced delays and even failure in the migration process of participants. In the case of the Australia Pacific Training Coalition, previously the Australian Pacific Technical College (APTC), only 5% of participants migrated to Australia in the first two phases of the scheme. This is because Australia did not adjust visa requirements for APTC graduates, such as recognising their credentials from scheme-sponsored training. Participants, like all other prospective migrants, had to pass a skills assessment recognized by Trades Recognition Australia (TRA) to move to and work in Australia, costing them between A$600-800 which, which in addition to the cost of the flight to Australia may be too expensive for many APTC participants (Clemens 2015 (Chand, Clemens Dempster, 2021. APTC authorities are currently addressing these issues in the scheme's third phase (CGDEV, n.d (DFAT, 2021.

Skills mobility schemes have a role to play in adapting migration systems to future skills needs. More research is needed to understand how much SMSs impact national migration systems and openness to regular migration pathways. In the case of successful schemes, they have incentivised governments increases to pathways for regular migration.

Capacity building of institutions, migration governance and data management has a positive impact on the scheme's outcomes as well as on development in the country of origin. Capacity building can include the creation or enhancement of training institutions as well as improvement of migration governance in the country of origin. For example, *Towards a Holistic Approach to Labour Migration Governance and Labour Mobility in North Africa (THAMM)* has explicitly stated that it aims to improve migration-related data management and governance in the collaboration countries of origin (CGDEV, 2021. Employing the services of training organisations in the country of origin may also be more cost efficient as salaries may be lower than in the country of destination. The *Australian Pacific Training Coalition (APTC)* provided training in the countries of origin, but employed Australian training staff which increased the costs of the scheme and missed an opportunity to provide job opportunities for Pacific Islanders.

Finally, SMSs have adopted a “quadruple win” approach to address fears of “brain drain” in countries of origin. A "quadruple win" approach aims to benefit not only countries of destination, but also countries of origin, employers, and participants. A "two-track system" may often be a component of this approach as it can train participants in the “home track” for the

needs of the labour market in the country of origin and potentially even match qualification standards in the country of origin with those of the country of destination. For example, the APTC responded to Pacific sending countries' "brain drain" fears by including a "two-track" system in phase three of the scheme (2018-2022) (CGDEV, n.d. Furthermore, German-led SMSs commonly follow the two-track model, making it an integral part of their Triple Win programmes, with examples including nursing mobility schemes with the Philippines and Tunisia.

What are missed opportunities, and the knowledge gaps in skills mobility partnerships?

There is insufficient knowledge on bilateral labour agreements (BLAs) worldwide. Countries are not required to share BLAs publicly and there is no one resource that collects information on all the existing BLAs (Segatti, 2015. In recent years, increased attention has been paid to this issue (Chilton and Woda, 2022. However, more needs to be done to systematically keep track of BLAs and memoranda of understanding (MoUs) relating to credential recognition and migration between countries. Currently, there is a big gap in knowledge regarding pathways for migration and therefore, what is possible for skills mobility schemes.

Moreover, migration systems need to transition into being more suitable for countries' demographic needs. Skills mobility schemes are most often operating within previously established visa programmes or bilateral labour agreements (BLAs). This restricts them to the type and duration of skills mobility offered to participants. SMSs should be used to widen the regular pathways for labour migrants, with skills development as a key component of mobility. Some countries have already begun this transition as is the case with Germany's New Skilled Immigration Act (FEG) which eases access to legal pathways for labour migrants with the skills and competences demanded by the German labour market (The Federal Government of Germany, n.d. Another good example is the *Digital Explorers (DE)* scheme, which has led to increased legal pathways for Nigerian migrants with digital skills demanded in Lithuania, and even a temporary consulate set up in Abuja (MPF, 2022. However, there remain few legal pathways for low-skill migrants who could fill labour gaps in many countries, notably in the EU (EMN/JRC/DG HOME, 2020.

Scalability and sustainability remain out of reach for most skills mobility schemes. Most SMSs are heavily financed by the governments of countries of destination. Examples of skills mobility schemes with private-sector funding remain rare. Given the schemes' high cost per capita, there needs to be more movement to reduce the costs and find other ways of financing them. Governments and public institutions have a role to play by reducing the costs for migrants and increasing partnerships with the private-sector and employers to tailor schemes to their needs. Business cases can be a great tool to address this issue but are rarely conducted by scheme authorities. One of the exceptions is the *Digital Explorers (DE)* scheme (XX).

Equal partnership between countries of origin and destination remains a challenge. Most SMSs are run and funded by authorities in the country of destination. Given that entities in the country of destination design, implement and evaluate most schemes, it is questionable how

much authority the country of origin has over these. For example, the Migration Partnerships Facility (MPF) allocates funds for the EU Talent Partnerships from the European Commission's DG Home and conducts monitoring and evaluation of the schemes (MPF, n.d. Improving equal partnerships between countries is essential for the sharing of benefits and for the potential impact of these schemes on the development of countries of origin.

Collection, analysis and sharing of the appropriate data. Collection, analysis and sharing of data remains a challenge that has been inadequately addressed by many scheme authorities. Some schemes have been deemed to have insufficient granular data on the specific skills required, as is the case with the *APTC* (CGDEV, n.d. Furthermore, many of the ongoing schemes have insufficient public data, making it difficult to assess the scheme while it is ongoing and delaying the evaluation process to only once the programme is completed (CGDEV, n.d.

There is insufficient inclusion of country-of-origin development objectives and strategies. Not all SMSs specifically aim to address development in the country of origin. However, development has been increasingly adopted as a central issue in SMSs and by tailoring these to country-of-origin development strategies, long term success in other objectives may be much more likely. However, this remains an issue that is not sufficiently dealt with by scheme authorities. This will be further elaborated in the next section.

5 Linking skills mobility partnerships with development in country of origin

A major shortcoming of skills mobility partnerships is the establishment of a strong business case, in which both destination and origin country benefit. Most migration schemes are primary focused on the socioeconomic needs of the country of destination. But to make skills mobility partnerships truly scalable, and financially viable, a win-win case must be built on the development of the country of origin. This section will focus on a fundamental element to building such a business case, which is the development benefits in the country of origin. Building stronger development-oriented programmes ensures development in the region can be sustainable, benefits all parties, and provides an impetus for donor development co-operation partners to create synergies with their own existing and future initiatives in such countries.

What are the fundamental links between migration and development?

Targeted emigration can release pressure in labour markets but may also have negative consequences for productivity in countries of origin. Emigration can release pressure in overly saturated labour markets. The reduced labour supply can improve wage levels and reduce unemployment for those who have skills that substitute emigrant workers' but can worsen wages for those whose skills are complimentary to the emigrant population. Successful emigration can push those who stay behind to improve their skills, especially in professions where there are legal pathways for migration. However, high rates of emigration among highly skilled workers can plummet skill stocks and productivity, and therefore have negative consequences on development in countries of origin (OECD, 2017.

Remittances are a very important source of foreign funds for many developing countries. For low- and middle-income countries, remittances represent the largest source of foreign funds, exceeding foreign direct investment (FDI) and official development assistance (ODA) (World Bank/ KNOMAD, 2023. They can ease credit constraints for many households, allowing them to invest in human capital or in their business. Moreover, in male-dominated emigrating populations, remittances can represent a source of economic independence for women-led households left behind. The positive impacts of remittances on investment in countries of origin will depend on whether there are policies in place to reduce the costs of sending remittances and policies that allow access to formal financial markets OECD, 2017.

Diasporic engagement can be an influential tool for development in countries of origin, including through trade and humanitarian aid. Diasporas represent important bridges between countries of origin and destination. They can increase trade and investment between their countries of origin and destination. They can also engage in investment in countries of origin through "nostalgia trade", which refers to trade in goods and tourism services specific to their countries of origin (IOM, n.d. Diasporas are also among the first to send aid in emergency situations in their countries of origin. During the COVID-19 pandemic and during other moments of crisis, such as natural disasters, diasporas are key players in the field of humanitarian aid. Their familial and cultural links offer them the knowledge of where their remittances will be most useful in helping communities stay afloat during times of crisis. However, this remains understudied (Shabaka, 2021.

Reintegration of return migrants can be an important tool for improving skill stocks but remains underutilized. Return migrants can bring human and financial capital gained while abroad. They are more likely than non-migrants to own businesses and to be self-employed upon return. This has the potential of increasing economic diversification. However, return migrants may be forced to choose the path of self-employment because of difficulties in re-entering the labour market. Policies that recognize the gained human capital of return migrants can improve job matching, enrich skill sets and increase the potential for development in local communities. However, this remains an underutilized tool for development in countries of origin (OECD, 2017.

How can mobility partnerships integrate developmental objectives?

Many schemes address targeted emigration areas in the country of origin, as long as these match with labour market shortages in the country of destination. Examples of this are:

Remittances and financial literacy components would be highly beneficial to ensuring mobility schemes address development concerns in the country of origin. However, reducing remittance costs, identifying areas for remittance investment in the country of origin or improving financial literacy are very rarely included in the design of skills mobility schemes. Instead, the added benefit of remittances is considered abstractly in the design of mobility schemes. It is not fully investigated, creating a missed opportunity for development in the country of origin. A scheme that includes remittances as a central component to its programme is the Recognised Seasonal Employer (RSE) programme in New Zealand. The RSE aims to reduce remittances costs and develop pension schemes in Samoa and Tonga with scheme participants. In addition, the Australia Pacific Training Coalition (APTC) scheme added financial literacy training for participants, in its third phase (GSP).

Similarly to remittances, diasporic engagement is not sufficiently included in mobility schemes. Diasporic engagement is touted as one way that mobility schemes will achieve development in the country of origin. However, mobility schemes rarely include diasporas as stakeholders in the design and implementation of such schemes. The Enabel scheme *PEM WECCO*, which works to improve the entrepreneurship of small businesses in Senegal, aims to include the entrepreneurial Senegalese diaspora in Belgium in this knowledge sharing partnership. The *MATCH* programme involves a diaspora commission in the origin country and the German *Skills Partnership for Mobility in Kosovo* included diaspora associations as stakeholders in the country of destination (EC/EMN, 2021.

Return and reintegration is often included as a component of skills mobility schemes. This is especially the case with more recent mobility schemes. This is a positive trend as return and reintegration assistance plays an important role in ensuring that the human capital gained through mobility schemes is adequately integrated into the country of origin's society and economy, benefitting both participants and society at large.

Including education and training institutions and professionals from the country of origin. Training in the country of origin or creating a dual-track system offer capacity building benefits.

Integrating diaspora in skills mobility schemes is insufficiently done. Diasporas play a very important role as bridges between countries of origin and destination, transferring knowledge, skills and investment between the two. They can engage as entrepreneurs and employers in countries of destination, aiding in the integration process for new migrants (ECDPM, 2021. Only three schemes have included diaspora as stakeholders. *PEM WECCO*, *YES Kosovo*, *PERSPECTIVES – Mobilité des jeunes professionnels Tunisiens*, and *MATCH* identify the diaspora stakeholders.

CGDEV classifies GIZ's 3 approaches "within 2 development categories: "Preventing Harm" and "Building Institutions". The first has development benefits (e.g. through remittances and innovation transfer) but **does not actively and directly seek to spur development in the**

country of origin in the short term (e.g. by establishing new institutions). The second does just that, building lasting structures and institutions that not only prevent harm, but also lead to maximum benefit for the country of origin. The *Skilled Migration* and *Destination Training* approaches fall in the "Preventing Harm" category. (...) The *Origin Training* approach, on the other hand, falls in the "Building Institutions" category" (CGDEV, 2019).

National development and sectoral plans need to be better integrated into skills mobility schemes. Insufficient schemes address the development and sectoral goals of countries of origin. Examples of schemes that do this well are PALIM, which using Morocco's national strategy for inclusive digitalisation, PEM WECCO, which addresses Senegal's 6 priority sectors (agriculture, food systems, aquaculture, digital, healthcare and tourism), and the *Accessing Overseas Employment Opportunities for Moroccan Youth Project* which directly responds to Morocco's Strategic Action Plan of the Ministry of Employment (2014-16) and their National Strategy for Employment (2015–25) (GSP; Enabel; World Bank, 2015).

There also exist academic programmes that have not been included in the SMSs database, but they may also address labour market needs in the countries of origin. Examples are the Young Generations as Change Agents (YGCA) between Spain and Morocco and the Programme Canadienne de Bourse de la Francophonie (PCBF) between Canada and francophone African countries (MPF, 2022. The YGCA offers Moroccan graduates the opportunity to complete a 1-year Master's degree in Spain in previously chosen fields by the Moroccan government. The programme requires that participants return to Morocco following the completion of their studies. Here, labour and education institutions must work together in the development and implementation of these programmes.

Recommendations:

- Skills mobility partnerships must be connected to broader development goals, not only in host countries, but also countries of origin;
- To do so, capacity development in the country of origin must become a greater feature of skills mobility partnerships
- In practice, this means connecting skills mobility partnerships with national, sectoral and local development plans as well as donor and partner country strategies in the country of origin.

References

EC (2023), "Talent Partnerships", Migration and Home Affairs, European Commission, https://home-affairs.ec.europa.eu/policies/migration-and-asylum/legal-migration-and-integration/talent-partnerships_en (accessed 13 April 2023).

De Raeve, Paul (2022), "The registered nurse shortage in Europe is a 'ticking time bomb'", Health Europa, published 10 November 2022, https://www.healtheuropa.com/the-registered-nurse-shortage-in-europe-is-a-ticking-time-bomb/119272/, (accessed 15 March 2023).

Di Salvo, M. (2022), "Talent Partnerships and Future Skills Needs", EuroMeSCo Policy Report, European Institute of the Mediterranean (IEMed), published March 2022, https://www.euromesco.net/wp-content/uploads/2022/03/Policy_Report_Talent-Partnerships_public_web-final..pdf.

EMN (2021), "AD HOC QUERY ON 2021, 44AHQ for EMN inform on Skills mobility partnerships", European Migration Network, https://home-affairs.ec.europa.eu/system/files/2021-10/202144_ahq_for_emn_inform_on_skills_mobility_partnerships.pdf, (accessed 15 March 2023).

IOM (), "Skills Mobility Parternships (SMPs): Towards a global approach to skills development and labour mobility", International Organisation for Migration, https://eea.iom.int/sites/g/files/tmzbdl666/files/documents/Skills-Mobility-Partnerships-Infosheet.pdf, (accessed 15 March 2023).

CGDEV (2023), "Global Skills Partnership Nursing in the Philippines", https://gsp.cgdev.org/legalpathway/global-skills-partnership-nursing-in-the-philippines/, (accessed 15 March 2023).

Samik Adhikari, Michael Clemens, Helen Dempster and Nkechi Linda Ekeator (2021). "A Global Skill Partnership in Nursing between Nigeria and the UK". Center for Global Development (CGDEV). https://www.cgdev.org/publication/global-skill-partnership-nursing-between-nigeria-and-uk

Barbero, M. and McLaren, J. (2023), "Effective and Ethical Data Sharing at Scale", Global Partnership for Sustainable Development Data, https://www.data4sdgs.org/effective-and-ethical-data-sharing-scale, (accessed 5 April 2023).

Braňka, J. (2016a), "Strengthening skills recognition systems: recommendations for key stakeholders", International Labour Office, Skills and Employability Branch, Geneva: ILO, 2016, ISBN: 9789221307884 (web pdf), https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_541698.pdf, (accessed 6 April 2023).

Braňka, J. (2016b), "Understanding the potential impact of skills recognition systems on labour markets: research report", International Labour Office, Skills and Employability Branch, Geneva: ILO, 2016, ISBN: 9789221313540 (web pdf), https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_532417.pdf, (accessed 6 April 2023).

CGDEV (2021), "Towards a Holistic Approach to Labour Migration Governance and Labour Mobility in North Africa (THAMM)", Global Skills Partnership, Center for Global Development (CGDEV), published online July 2021, https://gsp.cgdev.org/wp-content/uploads/2021/07/CGD-Legal-Pathways-Database_THAMM.pdf (accessed 3 April 2023).

Chand, S., Clemens, M. A., and Dempster, H. (2021), "A Pacific Skills Visa: Improving Opportunities for Skilled Migration throughout the Pacific Region," IZA Policy Papers 183, Institute of Labor Economics (IZA), https://www.iza.org/en/publications/pp/183/a-pacific-skills-visa-improving-opportunities-for-skilled-migration-throughout-the-pacific-region, (accessed 10 March 2023).

EMN (2021), "AD HOC QUERY ON 2021, 44AHQ for EMN inform on Skills mobility partnerships", European Migration Network, https://home-affairs.ec.europa.eu/system/files/2021-10/202144_ahq_for_emn_inform_on_skills_mobility_partnerships.pdf, (accessed 10 March 2023).

Friederici, N. (2022), "Digital Explorers: Breaking new ground for talent exchange between Lithuania, Nigeria, and the world", published March 2022 (accessed 15 June 2023).

IOM (2022), "The State of Play of Skills Mobility Partnerships between Africa and Europe," IOM, JLMP, August 2022, https://ethiopia.iom.int/sites/g/files/tmzbdl996/files/documents/The%20State%20of%20Play%20of%20Skills%20Mobility%20Partnerships%20between%20Africa%20and%20Europe.pdf, (accessed 10 March 2023).

Michael A. Clemens, Colum Graham & Stephen Howes (2015). "Skill Development and Regional Mobility: Lessons from the Australia-Pacific Technical College," The Journal of Development Studies, 51:11, 1502-1517, DOI: 10.1080/00220388.2015.1028537

MPF (2022), “The EU’s First Generation Pilot Projects on Labour Migration: Main Achievements and Next Steps”, Migration Partnership Facility, News, published online 15 June 2022, https://www.migrationpartnershipfacility.eu/news/the-eu-s-first-generation-pilot-projects-on-labour-migration-main-achievements-and-next-steps, (accessed 14 March 2023).

MPF (2021), “Digital Explorers Interview: Insights from the participants”, Migration Partnership Facility, News, published online 10 May 2021, https://www.migrationpartnershipfacility.eu/news/digital-explorers-interview-insights-from-the-participants, (accessed 13 March 2023).

MPF (2020), "Putting the Talent Partnerships in Motion", Migration Partnership Facility, published 16 November 2020. https://www.migrationpartnershipfacility.eu/news/putting-the-talent-partnerships-in-motion (accessed 14 April 2023)

OECD (2019), Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies, OECD Publishing, Paris, https://doi.org/10.1787/276aaca8-en, (accessed 5 April 2023).

UNNM (2022), "Guidance on Bilateral Labour Migration Agreements", United Nations Network on Migration, published February 2022, https://migrationnetwork.un.org/sites/g/files/tmzbdl416/files/resources_files/blma_guidance_final.pdf, (accessed 11 April 2023).

Friederici, N. (2022), "Digital Explorers: Breaking new ground for talent exchange between Lithuania, Nigeria, and the world", Digital Explorers, published March 2022 (accessed 19 June 2023).

Stefanescu, D. (2020), "Partnerships for mobility at the Crossroads: Lessons Learnt from 18 Months of Implementation of EU Pilot Projects on Legal Migration", International Centre for Migration and Policy Development (ICMPD) and Migration Partnership Facility (MPF), published 2020, https://www.migrationpartnershipfacility.eu/storage/files/mpf-policy-brief-pilot-projects-1020.pdf, (accessed 3 April 2023).

CGDEV (2021), "Australia Pacific Training Coalition (APTC)", Global Skill Partnerships, Centre for Global Development, published online 7 July 2021, https://gsp.cgdev.org/2021/07/07/australia-pacific-training-coalition-aptc-2/#:~:text=Phase%20three%20includes%20an%20increased,reliant%20on%20Australian%20aid%20funds, (accessed 15 March 2023).

CGDEV (2023a), "Australia Pacific Training Coalition (APTC)", Centre for Global Development, Global Skill Partnerships, https://gsp.cgdev.org/2021/07/07/australia-pacific-training-coalition-aptc-2/, (accessed 15 March 2023).

CGDEV (2023b), "Canada Home Child Care Pilot and Home Support Worker Pilot", Centre for Global Development, Global Skill Partnerships, https://gsp.cgdev.org/legalpathway/canada-home-child-care-pilot-and-home-support-worker-pilot/, (accessed 15 March 2023).

DFAT (2021), "Australia Pacific Training Coalition Stage 3 (APTC3): Strategic Review ", March 2021
https://www.dfat.gov.au/sites/default/files/apct-3-strategic-review-executive-summary.pdf (accessed 18 April 2023).
ECDPM (2021), "Implementation of The Talent Partnerships: What Potential Role For The Diaspora?", EUDiF & MPF case study, Brussels: ICMPD, https://diasporafordevelopment.eu/wp-content/uploads/2021/09/Case-Study-Talent-Partnerships_Long-Version_EN-22.pdf , (accessed 15 March 2023).
Ivanovas, V., Dudinskij, E., Jocys, M., Barcevicius, E., Ivanausakas, L., Kaminskis, K., Svedkauskas, M., Dmukauskaite, E. (XX), "Multifaceted Impact: Digital Explorers' Value for Money Assessment", Digital Explorers, https://drive.google.com/file/d/1ebuX0--xCER7LhJKcn6i4MNSS5jFZxmN/view, (accessed 19 June 2023).
Clemens, M.A. (2015) "Global Skill Partnerships: A Proposal for Technical Training in a Mobile World," IZA Journal of Labor Policy 4, no. 2 (2015): 12, https://izajolp.springeropen.com/articles/10.1186/s40173-014-0028-z.

OECD (2020), *Sustainable Reintegration of Returning Migrants: A Better Homecoming*, OECD Publishing, Paris, https://doi.org/10.1787/5fee55b3-en.

Annex 1: Database of Skills Mobility Schemes active from 2010-2023

	Name of Scheme	Main objective	Countries of Origin	Countries of Destination	Year started and ended
1	Pilot Project Addressing Labour Shortages through Innovative Labour Migration Models (PALIM)	Address labour market needs of the Flemish region and organise regular migration by consolidating the skills of young ICT graduates in Morocco.	Morocco	Belgium	2019 - 2021
2	Towards a Holistic Approach to Labour Migration Governance and Labour Mobility in North Africa (THAMM)	Strengthen mobility schemes by improving the concerted management of migration flows and the recognition of skills between participating countries.	Egypt, Morocco, Tunisia	Belgium, Germany, France	2019 - 2023
3	Pilot Project for Entrepreneurial Mobility (PEM WECCO)	Strengthen the public-private partnership to create business ties between Belgian companies and Senegalese entrepreneurs and encourage regular and circular migration.	Senegal	Belgium	2021 - 2024

4	Pilot Project for Entrepreneurial Mobility (PEM)	Strengthen the public-private partnership to create business ties between Belgian companies and Ivorian entrepreneurs and encourage regular and circular migration.	Ivory Coast	Belgium	2022 - 2026
5	Migration of African Talents through Capacity building and Hiring (MATCH)	Promote existing migration pathways to upscale young migrants' skills and increase their employability while addressing EU labour market shortages.	Nigeria, Senegal	Belgium, Italy, Luxembourg, The Netherlands	2020 - 2023
6	Enhancing Tunisian youth employability through internships in Belgian companies	Increase the employability and entrepreneurship of young Tunisian graduates to tackle the high unemployment rate and irregular immigration.	Tunisia	Belgium	2018 - 2019
7	High Opportunity for Mediterranean Executive Recruitment (HOMERe)	Promoting legal channels for temporary migration by offering internship opportunities to young graduates from nine Mediterranean countries to strengthen their skills.	Egypt, Morocco, Tunisia, Algeria, France, Greece, Italy, Lebanon, Spain	Mainly France, but also all participating countries	2019 - present
8	Mediterranean Network for Training Orientation to Regular migration (MENTOR)	Promote circular and temporary mobility scheme and offer opportunities to young Moroccans and Tunisians to develop professional and entrepreneurial skills.	Morocco, Tunisia	Italy	2017 - 2018
9	Mediterranean Network for Training Orientation to Regular migration (MENTOR II)	Promote circular and temporary mobility scheme and offer opportunities to young Moroccans and Tunisians to develop professional and entrepreneurial skills.	Morocco, Tunisia	Italy	2021 - 2024

10	Accord entre l'État du Grand-Duché de Luxembourg et la République du Cabo Verde relatif à la gestion concertée du flux migratoire et au développement solidaire	Create legal channels for temporary migration to combat irregular migration and provide young Cape Verdean graduates with the opportunity to acquire new skills and work experience.	Cape Verde	Luxembourg	Since 2020
11	PERSPECTIVES – Mobilité des jeunes professionnels Tunisiens	Promote circular migration and facilitate investments and know-how transfer between the Tunisian diaspora and the Tunisian SME.	Tunisia	Switzerland	2022 - 2026
12	Skills mobility partnership for better employment in Tunisia and Switzerland	Address labour shortages in Switzerland while promoting the safe migration and development of new skills for young Tunisians.	Tunisia	Switzerland	2021 - 2023
13	Digital Explorers (DE)	Provide Nigerian ICT specialists with career advancement opportunities while addressing the talent shortage in the Lithuanian ICT sector.	Nigeria	Lithuania	2019 - 2021
14	Digital Explorers (DE) – Female Track	Address labour shortage in the Lithuanian ICT sector and provide Nigerian women ICT specialists with career advancement opportunities to help bridge the global gender gap in technology.	Nigeria	Lithuania	2020 - 2021
15	Digital Explorers (DE) II	Provide African ICT specialists with career advancement opportunities while.	Nigeria, Kenya, Armenia	Lithuania, Estonia, Latvia	2023 - 2026
16	Digital Explorers - Iraq Edition	Address labour shortage in the Lithuanian ICT sector and provide Iraqi ICT specialists with career advancement opportunities.	Iraq	Lithuania	2023 - 2025

17	MOBILISE		Tunisia, Egypt, Ethiopia	The Netherlands	2023 - 2027
18	Partnership Approaches for Development-oriented Vocational Training and Labour Migration (PAM)	Addressing the labour shortage in Germany through vocational training and migration of jobseekers by transferring skills, knowledge and financial resources.	Ecuador, Viet Nam, Kosovo, Nigeria	Germany	2019 - 2023
19	Transforming Partnership in the Healthcare Sector (TAPIG)	Promote legal immigration of young Tunisian graduates through vocational training to address the nursing shortage in Germany.	Tunisia	Germany	2012 - 2013
20	Training Nurses from Vietnam to become Geriatric Nurses in Germany	Promote legal immigration of young Vietnamese nursing graduates through vocational training to address the labour shortage in the geriatric care sector in Germany.	Viet Nam	Germany	2012 - 2016
21	Pilot Program Aimed at Attracting Personnel from Vietnam to Train as Nurses in Germany	Promote legal immigration of young Vietnamese nursing graduates through vocational training to address the labour shortage in the geriatric care sector in Germany.	Viet Nam	Germany	2016 - 2019
22	Triple-Win programme	Facilitate the integration of qualified nurses from countries with high labour surpluses countries to address significant labour shortages in the German nursing sector.	Philippines, Bosnia and Herzegovina, Tunisia, El Salvador, Viet Nam, Indonesia	Germany	2013 - present

23	Germany - China Geriatric Nursing Pilot Program	Facilitate the integration of qualified Chinese nurses to address significant labour shortages in the German nursing sector.	China	Germany	2013 - 2014
24	Global Skills Partnership Nursing in the Philippines	Facilitating the integration of qualified Filipino nurses to address significant labour shortages in the German nursing sector.	The Philippines	Germany	2020 - 2022
25	Hand in Hand for International Talents	Establish robust knowledge transfer structures to support regular and safe migration of skilled workers and address the shortage of skilled labour in Germany.	Brazil, India, Viet Nam	Germany	2020 - 2023
26	Part of Pilot Circular Migration Scheme (PCMS)	Address labour shortages in the German health sector by establishing strong knowledge transfer structures to improve the skills and employability of Georgian workers.	Georgia	Germany	2013 - 2016
27	Youth, Employment, and Skills Kosovo (YES)	Improve the skills of young Kosovars to meet the requirements of the German market and enhance their employability.	Kosovo	Germany	2017 - 2019
28	Accessing Overseas Employment Opportunities for Moroccan Youth Project	Facilitate the integration of young Moroccans to address labour shortages in the German tourism and construction sector.	Morocco	Germany	2015 - 2025
29	Promotion of the legal mobility of highly qualified labour from Tunisia	Facilitate integration of qualified Tunisians to address labour shortages in STEM professions in Germany	Tunisia	Germany	2012 - 2013
30	German - Tunisian Mobility Pact	Facilitate the integration of qualified Tunisians to address labour shortages in STEM professions in Germany	Tunisia	Germany	2014 - 2016

31	Triple Win nurses – Sustainable recruitment of nurses from third countries for employment in Germany	Facilitate the integration of qualified foreign nurses to address significant labour shortages in the German nursing sector.	Bosnia and Herzegovina, Philippines, Tunisia, Indonesia, Jordan, Kerala (India)	Germany	Since 2013
32	Blue Birds	Improve the skills of South African and Indonesian migrants to alleviate labour shortages in the Netherlands.	South Africa, Indonesia	The Netherlands	2010 - 2011
33	Temporary and Circular Labour Migration (TCLM)	Create legal channels for temporary migration of Colombians affected by recurrent natural disasters to regulate migration flows and meet Catalonia's demand for seasonal workers.	Colombia	Spain	2007 - 2012
34	(E)Co-development for innovation and employment in green and circular economy between Andalusia and Morocco (MOVE_GREEN)	Improve the professional skills of young Moroccans and strengthen the public-private partnership in the green economy sector.	Morocco	Spain	2021 - 2024
35	Women As Financially Independent Rural Actors (WAFIRA)	Strengthen Moroccan institutions to support women's entrepreneurial activity and sustainable socio-economic integration into their communities of origin.	Morocco	Spain	2021 - 2024
36	International Medical Graduate Training Initiative (IMGTI)	Strengthen the medical education and training of international medical graduates and, in the long term, improve health services in their home countries.	Sudan, Pakistan	Ireland	2014 - present
37	Atypical Working Scheme	Promote legal channels for temporary migration and provide employment opportunities for skilled foreign workers to address skills shortages in Ireland.	Non – EEA Nationals	Ireland	2016 – present

38	DIGI Talents	Promote legal channels for temporary migration to enable Moldovans and Ukrainians to build up their social capital and develop new skills while addressing labour shortages in Slovakia.	Moldova, Ukraine	Slovakia	2021 - 2024
39	Poverty Reduction through Safe Migration, Skills Development and Enhanced Job Placement (PROMISE)	Improve employment opportunities and living conditions for Cambodian, Laotian and Burmese migrants in Thailand by enhancing their skills and protection, thereby reducing poverty in the communities of origin.	Cambodia, Lao PDR, Myanmar	Thailand	2017 - 2021
40	Poverty Reduction through Safe Migration, Skills Development and Enhanced Job Placement Phase II (PROMISE II)	Improve employment opportunities and living conditions for Cambodian, Laotian and Burmese migrants in Thailand by enhancing their skills and protection, thereby reducing poverty in the communities of origin.	Cambodia, Lao PDR, Myanmar	Thailand	2021 - 2025
41	Technical Intern Training Programme (TITP)	Promote cooperation between states by providing employment opportunities for workers from developing countries and transferring skills, technology, and knowledge.	Bangladesh, Cambodia, China, India, Indonesia, Laos, Pakistan, Peru, The Philippines, Myanmar, Mongolia, Nepal, Sri Lanka	Japan	1993 - present
42	Kiribati Australia Nursing Initiative (KANI)	Promote skills development for young Kiribatians and address youth unemployment by providing training and employment in the nursing sector in Australia.	Kiribati	Australia	2006 - 2014

43	Australia Pacific Technical College (APTC)	Create legal channels for temporary migration and provide Pacific Islanders with skills training to enhance their employability overseas.	Pacific Island States	Australia	Since 2010
44	Jeune professionnel	Create legal channels for temporary migration to improve the employability of young foreign graduates by enabling them to acquire new professional, language and cultural skills and work experience.	Algeria, Argentina, Benin, Canada, Cape Verde, Congo Brazzaville, The United States (Through the French-American Chamber of Commerce – FACC), Gabon, Georgia, India, Morocco, Mauritius, Montenegro, New Zealand (agriculture only), Russia, Senegal, Serbia, Tunisia	France	Since 1983
45	PREFALC	Promote a circular mobility scheme to contribute, through exchange and training, to the development of academic training and institutional cooperation between higher education institutions.	Latin America, The Caribbean	France	Since 2003
46	India Young Professionals Scheme (YPS)	Create a circular migration programme that supports the mobility of qualified Indian ICT graduates and promotes knowledge transfer structures to address the IT skills shortage in the UK.	India	United Kingdom	Since 2023

47	Boma International Hospitality College (BIHC)	Promote vocational training to meet the current needs of the African tourism industry and provide students with international training and work experience to develop their professional skills.	Sub-Saharan Africa	Kenya	Since 2015
48	Temporary and Circular Migration Project between Portugal and Ukraine	Promote legal immigration by integrating Ukrainian migrants into Portuguese companies to establish a migration rotation for seasonal jobs.	Ukraine	Portugal	2008 - 2012
49	Japan-Philippines Economic Partnership Agreement (JPEPA)	Under the bilateral health immigration scheme, facilitate the exchange and integration of qualified Filipino nurses and other health workers to address labour shortages in the Japanese healthcare sector.	The Philippines	Japan	Since 2009
50	Indonesia-Japan Economic Partnership Agreement (IJEPA)	Under the bilateral health immigration scheme, facilitate the exchange and integration of qualified Indonesian nurses and other health workers to address labour shortages in the Japanese healthcare sector.	Indonesia	Japan	Since 2008
51	Japan-Vietnam Economic Partnership Agreement (JVEPA)	Under the bilateral health immigration scheme, facilitate the exchange and integration of qualified Vietnamese nurses and other health workers to address labour shortages in the Japanese healthcare sector.	Viet Nam	Japan	Since 2009
52	Employment Permit System for (EPS)	Adequately address the structural labour and skills shortages in specific sectors of the Korean economy while improving the integration and employability of foreign workers.	Bangladesh, Cambodia, China, Indonesia, The Kyrgyz Republic, Laos, Mongolia, Myanmar, Nepal, Pakistan, The Philippines,	South Korea	Since 2004

			Sri Lanka, Thailand, Timor-Leste, Vietnam, Uzbekistan		
53	Indonesia-Australia Skills Development Exchange Pilot Project	Create mutual exchange opportunities for qualified Australians and Indonesians to undertake short-term vocational training to encourage skills development and increase economic integration between Indonesia and Australia.	Indonesia	Australia	2022 - 2025
54	Vakameasina	Provide professional opportunities for seasonal workers and ensure that they can access additional training to strengthen social remittances.	Pacific Island countries	New Zealand	Since 2010
55	Memorandum of understanding between the UK and the Philippines on healthcare cooperation	Create knowledge exchange channels to facilitate the integration of qualified Filipino nurses and other healthcare workers to address labour shortages in the UK healthcare sector.	The Philippines	United Kingdom	Since 2003
56	Memorandum of understanding between the UK and Sri Lanka on healthcare cooperation	Create knowledge exchange channels to facilitate the integration of qualified Sri Lankan nurses and other healthcare workers to address labour shortages in the UK healthcare sector.	Sri Lanka	United Kingdom	2022 - 2026
57	Memorandum of understanding between the UK and Nepal on the recruitment of healthcare workers	Create knowledge exchange channels to facilitate the integration of qualified Nepalese nurses and other healthcare workers to address labour shortages in the UK healthcare sector.	Nepal	United Kingdom	2022 - 2027
58	UK and India collaboration on healthcare workforce framework agreement	Create knowledge exchange channels to facilitate the integration of qualified Indian nurses and other healthcare workers to address labour shortages in the UK healthcare sector.	India	United Kingdom	Since 2022

59	Bilateral agreement between the UK and Kenya on healthcare workforce collaboration	Create knowledge transfer channels to facilitate the integration of qualified Kenyan nurses and other healthcare workers to address labour shortages in the UK healthcare sector.	Kenya	United Kingdom	Since 2020
60	The Porsche Training and Recruitment Center Asia (PTRCA)	Investing in the skills development of young Filipinos trained as Porsche-certified mechatronics technicians who will be deployed at Porsche centres in the Asia-Pacific region and the Middle East.	The Philippines	Porsche Centres in the Asia Pacific and Middle East region	Since 2008
61	Education and Training for Egyptian Youth in the Fayoum Governate		Egypt	Italy	2010-2019