▶ **Promoting fair and ethical recruitment in a digital world:**

Lessons and policy options

International Labour Organization

IOM UN MIGRATION

▶ Promoting fair and ethical recruitment in a digital world:

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Front cover photo : Marcel Crozet / ILO

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▶ Abbreviations and acronyms

AI	artificial intelligence
BoI	Bureau of Immigration [India]
CCVI	Certificate for Confirmation of Visa Issuance [Republic of Korea]
CV	curriculum vitae
ECR	Emigration Check Required [India]
EPS	Employment Permit System [Republic of Korea]
EU	European Union
EURES	European Employment Services
GFMD	Global Forum on Migration and Development
HR	human resources
HRD Korea	Human Resources Development Service of Korea
ILO	International Labour Organization
INR	Indian rupee [currency]
IOM	International Organization for Migration
ITS	Industrial Trainee Scheme [Republic of Korea]
ML	machine learning
MEA	Ministry of External Affairs [India]
MHRSD	Ministry of Human Resources and Social Development [Saudi Arabia]
MoU	memorandum of understanding
NGO	non-governmental organization
PES	Public Employment Service [Europe]
PGE	Protector General of Emigrants [India]
PoE	Protector of Emigrants [India]
PRA	private recruitment agency
SOLVIT	Solutions to Problems with Your EU Rights
UDC	Union Digital Centres
USAID	United States Agency for International Development

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▶ Executive summary

Despite the major disruption to international recruitment that the COVID-19 pandemic represents, international recruitment will resume, and in some cases has already re-started by governments and business globally, though the challenges of ensuring fair and ethical recruitment will likely exacerbate as a result of the pandemic.

The role of technology in facilitating international recruitment, already well-established in many countries, may indeed become even more critical than it was pre-pandemic. Thus, while this report was developed prior to the start of COVID-19, it is timely to review how technology can promote fair and ethical recruitment, which is the aim of this jointly commissioned ILO–IOM study.

Prior to the pandemic, countries of origin and countries of destination, as well as non-governmental stakeholders, had already tried to develop and implement a diverse range of online digital technology platforms that can – in theory – more efficiently address the complexity of recruitment than manual systems. These have been both unilateral and bilateral (between countries of origin and destination) platforms, and have often been designed to promote institutional transparency, fairness, and ethics in the recruitment and placement of migrant workers, as well as increase States' regulatory oversight and capability to effectively govern temporary labour migration. This study maps four examples of existing state-facilitated digital technology platforms that assist the recruitment, placement and/or job matching for migrant workers. In reviewing some of the promising practices and lessons learnt, the study aims to offer preliminary guidance to States developing similar online applications and platforms, while also discussing possible approaches on how to best leverage new techniques and technologies, including blockchain technology. [1]

The study involved conducting desk and limited field research between September 2018 and March 2019 in selected States that utilize innovative digital technology platforms–including the Republic of Korea (EPS), Kingdom of Saudi Arabia (Musaned), the Republic of India (eMigrate) and Europe (EURES). While the analysis is exploratory in nature, it appears to show that current and emerging state-led digital technology initiatives have displayed some promising results in promoting institutional transparency and oversight. This can subsequently lead to the reduction of migration costs and, in some cases, reduce the potential for collusion between private recruitment agencies (PRAs) and placement agencies in countries of destination. However, technology can only be of service when founded on strong political and institutional commitment and investment, particularly by States that are focused on increasing their regulatory oversight over PRAs.

Note on COVID-19, and other updates (December 2020).

This report was conceptualized, researched (including data collection) and finalized by the ILO and IOM prior to the COVID-19 pandemic (the desk and field research was completed between September 2018 and March 2019). The pandemic's impact on recruitment has been substantial and may have short- and long-term impacts on technological platforms, including those featured in this study. However, these (and other updates which occurred following the completion of the research) could not be captured in this study. For further information on how COVID-19 has impacted international recruitment practices, please see ILO, "Ensuring Fair Recruitment during the COVID-19 Pandemic", ILO Brief, June (2020). For guidance on strengthening migrant worker protection, please see IOM guidance "COVID-19: Guidance for employers and business to enhance migrant worker protection during the current health crisis" and "COVID-19: Guidance for labour recruiters to enhance migrant worker protection during the current health crisis"

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1   Blockchain technology is a digital ledger where transactions such as cryptocurrency are timestamped and recorded in a chronological and public manner (see section 3 below).

By analysing state-facilitated digital technology platforms through the use of specific working indicators – including institutional transparency, efficiency, costs, and oversight – the study arrives at the following key findings.

First, state-facilitated digital technology platforms are proliferating, diverse and have multiple functions. These include tackling labour recruitment, placement, and job matching-related issues, such as illegal and unethical recruitment, institutional inefficiency, lack of transparency, limited access to justice, and asymmetric market information. Both the Republic of Korea's EPS and Saudi Arabia's Musaned have digitized components that focus on streamlining the transnational recruitment and placement of low-skilled migrant workers into their own labour markets; while India's eMigrate platform digitizes the full emigration process of outbound Indian migrant workers requiring emigration clearance checks, offering various relevant Indian Government services electronically. Rather than considering the inbound or outbound migration of a single country, EURES is a regional digital technology platform that – among many other functionalities – directly connects jobseekers to employment opportunities across the European Union (and other select European partner States).

Second, state-facilitated digital technology platforms have demonstrated promising results in promoting fair, ethical, and transparent recruitment processes, particularly in the areas of institutional transparency, efficiency, costs, and oversight. From a transparency perspective, the establishment of online recruitment technology platforms has helped to digitally formalize the recruitment and placement of migrant workers, specifically in the cases of Musaned, eMigrate and the EPS. By transforming the recruitment procedures into a paperless, digitized process, States have sought to establish institutional transparency by making all recruitment and migration procedures, costs and complaint mechanisms more accessible. As a result, some stakeholder groups have enhanced

their overall awareness of their legal rights and responsibilities and gained improved access to existing recruitment market data and procedures. However, it remains the case that many migrant workers have limited access to the internet or have weak "digital literacy", therefore still rely on an intermediary to access key information and complete online procedures.

Some state-facilitated digital technology platforms such as Musaned and eMigrate appear to have achieved positive outcomes in improving overall efficiency of the recruitment and placement process. The Government of Saudi Arabia note that the Musaned platform for recruiting migrant domestic workers appears to have reduced the timeframe of the recruitment process from four months to approximately two to six weeks, depending on the employer's unique requirements. Similarly, India's eMigrate platform has seemingly expedited the recruitment process for outbound Indian migrant workers from three months to two weeks. The EPS and EURES systems look to have achieved similar results by eliminating unnecessary bureaucratic layers within the online recruitment processes.

Although some of the costs borne by workers in the recruitment process have been brought down, they have unfortunately not yet been entirely eliminated (see box 1). For example, after the establishment of the Republic of Korea's EPS, the complex roles of PRAs appear to have significantly shrunk, shifting more control to public institutions to manage the recruitment of migrant workers from abroad (although this is not specifically due to digitization, but rather a change of model from private recruitment intermediaries to recruitment only through the public employment services). Data suggests that recruitment costs for the EPS programme dropped from US$3,500 in 2004 to US$941 in 2014 (Park and Kim 2016), and the platform appears to have expanded migrant workers' access to labour market information, grievance mechanisms, and other employment-related information. There is some evidence of reduced cost of recruitment under the Musaned and eMigrate platforms,

although migrant workers, to a large extent, were still reportedly paying PRAs (and their subagents) for placement or "training" fees in order to guarantee employment abroad. In other words, while these digital technology platforms appear to have lowered the overall cost of labour migration, they have so far failed to eliminate the PRAs' power and capacity to shift recruitment fees and related costs to migrant workers, which can inadvertently lead to debt bondage, which is an indicator of forced labour, and other forms of labour exploitation. This suggests that more strategic state planning and intervention could be necessary to close this particular gap in the long run.

State-facilitated digital technology has supported expanded regulatory oversight, empowering some States to identify violations and impose sanctions against PRA violators, such as license suspension or revocation. In some countries of origin and countries of destination, digital technology has enabled the collection of useful labour market data, such as patterns in employers' compliance levels. This has enabled States to increase their institutional oversight over PRAs and/or employers in the recruitment and placement process. Under the EPS programme, the Government of the Republic of Korea has been able to deepen interstate engagement in the monitoring of PRAs. India's eMigrate has enabled the Indian Government and its overseas diplomatic missions to verify employers' and PRAs' recruitment practices. Musaned's digitized recruitment process supported the Government of Saudi Arabia to monitor and investigate violations by PRAs or other related placement agencies in the country.

Third, while digital technology platforms appear to have broadly enhanced the degree of transparency, efficiency, cost reduction, and oversight in the recruitment and placement process, important challenges remain, particularly in enabling workers to have direct access to the information contained in the platforms. Under Musaned and eMigrate, for example, migrant workers rarely have direct access to the digital platform, often relying on the information provided by their PRA

or its affiliated subagents. This high degree of dependency could be cause for serious concern, partly due to the potential for the asymmetric transfer of information between and among the interested actors, a condition that could enable forms of corrupt behaviour (for example, exorbitant fees charged to workers). In such a scenario, PRAs and their subagents have the ability to control the recruitment process, particularly if migrant workers lack the technical or language capacities to access or understand the digital platform, or in some cases, were forced (directly or indirectly) to disclose their log-in or tracking information.

Digitalization of labour recruitment could also potentially result in a more time-consuming process, along with extensive documentation/administrative processes, which could give rise to informal migration industry actors, such as typing centres and informal recruitment brokers. This, in turn, could influence migrant workers to rely on informal recruitment processes through social networks. Therefore, long-term government commitment and enforcement are essential in ensuring that migrant workers will be protected from any malpractices, as well as in upholding fair and ethical recruitment practices for all. Furthermore, migrant workers' education on, and engagement with the digital technology platform, as well as the quality and type of government investments required in maintaining, monitoring, and governing recruitment practices, are critical in increasing awareness and accessibility to digitized recruitment processes in the long run. In turn, the establishment of a state-led online digital technology platform may only be an initial institutional step in addressing any illegal and unethical recruitment practices by PRAs and other actors in the recruitment process. Thus, as global digital technology platforms continue to evolve, countries of origin and countries of destination need to realize that current and emerging digital technology mechanisms should not be viewed as a "one-size-fits-all" solution, but rather as part of a comprehensive institutional toolkit for enforcing and promoting fair and ethical recruitment modalities.

Apart from the selected case studies, other non-state digital technology platforms have also emerged to promote ethical, fair and transparent recruitment processes, though a deep discussion of these initiatives is outside of the scope of the research (see for example, GFMD 2020a; Farbenblum et al. 2018). Led by the Bangladesh-based BRAC Probashbandu Ltd, an NGO initiative for fair recruitment, the eMin Project (www.eminproject.com) is a pilot initiative that uses blockchain to promote ethical recruitment. The Migrant Recruitment Advisor (www.recruitmentadvisor.org), an initiative led by the International Trade Union Confederation, is a digital platform that aims to rate recruitment agencies in participating selected countries and territories, including Hong Kong SAR, China; Kenya; Malaysia; Nepal; the Philippines and Sri Lanka. In the Middle East, online job-matching initiatives led by regional private sector entities, such as Bayt.com and Gulf Talent, have been established to facilitate employment matching between migrant workers and employers. Other companies have also attempted to integrate digital technology in promoting low-cost remittance transfer (for example, www.saverasia.com). These state and non-state facilitated digital technology platforms reflect the growing digital responses to complex global labour issues, as well as the increasing institutional relevance and power of technology in eradicating illegal or unethical practices.
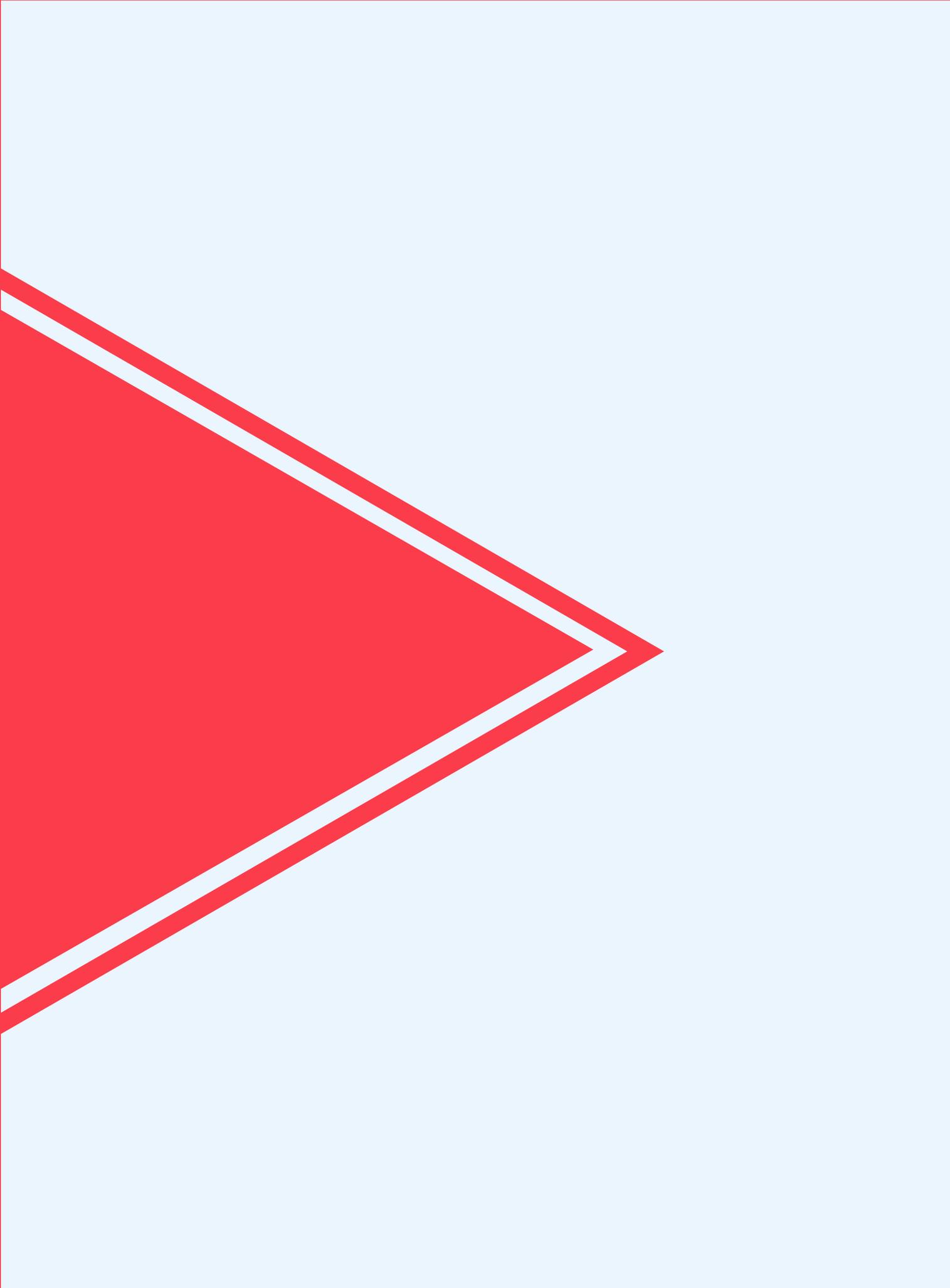
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Introduction and methodology

At the time of the publication of this study, the COVID-19 pandemic continues to have an unprecedented impact on migration across the world, as many countries have put in place restrictions on international travel, including for migrant workers. Yet, despite this major disruption to international recruitment, governments and business have resumed recruitment of workers from abroad. At the same time, the challenges of ensuring fair recruitment will likely exacerbate as a result of the pandemic. In particular, the contraction of the global labour market will mean a greater supply of migrant workers for fewer jobs, which may in turn pressure migrant workers – particularly low-wage workers – to pay high recruitment fees and related costs to "compete" for these limited opportunities (ILO 2020).

The role of technology in facilitating international recruitment, already well-established in many countries, will remain relevant, and may indeed become even more critical than it was pre-pandemic. Already, some recruitment practices have adapted to embrace online modalities (ILO 2020), [2] and the speed of adoption and innovation of new technologies in migration, to replace the health risk of face-to-face interaction during the recruitment process, will likely increase as a result of the pandemic (GFMD 2020a). [3]

In recent decades, and prior to the COVID-19 pandemic and its effects on international recruitment, temporary labour migration had consistently increased globally, inevitably generating complex challenges but also some opportunities for countries of origin and countries of destination in regulating and governing fair, ethical and transparent recruitment and placement of low-skilled migrant workers. In 2018, the ILO estimated 164 million migrant workers globally, with projected remittance contributions of over US$6.5 trillion between 2015 and 2030. The large-scale migration of international migrant workers, particularly from Asia to the Middle East, is mostly determined and facilitated by an interregional network of private recruitment agencies, which have sometimes been found to engage in illegal and unethical practices (Jureidini 2016), including the charging of recruitment fees and related costs to workers, which contravenes international labour standards and the ILO General Principles and Operational Guidelines for Fair Recruitment (box 1). The facilitation of fair and ethical recruitment is also recognized in Objective 6 of the Global Compact for Safe, Orderly and Regular Migration, adopted by 152 United Nations Member States in December 2018.

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2   For example, in Belgium, public employment services have issued recommendations on how to recruit without physical presence and enhanced their online services with online coaching sessions for jobseekers and over 300 online training opportunities (see: https://www.ilo.org/global/topics/coronavirus/country-responses/lang--en/index.htm#BE). In China, local governments have been promoting employment through online job fairs; including for internal migrant workers who are unable to travel between provinces. For further information, see https://global.chinadaily.com.cn/a/202004/02/WS5e853c68a310128217283cce.html and http://www.xinhuanet.com/english/2020-%2003/27/c_138922706.htm. In India, the Ministry of Labour and Employment is implementing its National Career Service through an online portal, including services such as job matching, career counselling, vocational guidance, information on skill development courses, apprenticeships and internships. For further information, see https://www.opengovasia.com/india-offers-online-employment-services-during-covid-19/.

3   This may include remote and distant document checking, iris and facial recognition for identity verifications and other technologies. It has been observed that "[t]he pandemic has also forced many sectors and professionals to undertake their work remotely relying on technology, thus increasing familiarity, acceptance and adoption". (GFMD 2020a, 1).

> ▶ **Box 1. Prohibition of worker-paid recruitment fees and related costs**

The ILO General Principles and Operational Guidelines for Fair Recruitment, adopted by a Tripartite Meeting of Experts in September 2016 and approved by the ILO Governing Body for publication and dissemination in November 2016, include the principle that "no recruitment fees or related costs should be charged to, or otherwise borne by, workers or jobseekers" (p. 3). Within the General Principles the term "recruitment fees and related costs" refer to "any fees or costs incurred in the recruitment process in order for workers to secure employment or placement, regardless of the manner, timing or location of their imposition or collection". This has now been supplemented by the more comprehensive Definition of Recruitment Fees and Related Costs, which was developed through a Tripartite Meeting of Experts held in November 2018, and approved by the ILO Governing Body for publication and dissemination in March 2019. The Definition is guided by international labour standards and should be read together with the General Principles and Operational Guidelines for Fair Recruitment (ILO 2019a).

Although some countries of origin and destination prohibit workers paying for their recruitment, several – including those covered in this study – allow payment of related expenses up to a specified ceiling, such as payments for medical expenses, training/orientation or obtaining a passport. According to the ILO's General Principles and Operational Guidelines for Fair Recruitment, such costs, "when initiated by an employer, labour recruiter or an agent acting on behalf of those parties; required to secure access to employment or placement; or imposed during the recruitment process" should not be borne by workers (ILO 2019a, 29). These related costs include medical costs, insurance costs, costs for skills and qualification tests, costs to verify workers' language proficiency and level of skills and qualifications, costs for training and orientation, equipment costs, travel and lodging costs, and administrative costs.

As transnational private recruitment agencies strategically facilitate and navigate the labour recruitment and placement of low-skilled migrants, countries of origin and countries of destination have been developing more innovative migration governance approaches, such as integrating online digital technology platforms to promote institutional transparency and efficiency in the recruitment process. Recent national, regional and global intergovernmental dialogues on labour migration have emphasized the transformative and developmental role of digital technology in streamlining migration, specifically the areas of labour recruitment, skills and mutual recognition, information dissemination and guidance for migrants, remittance transfers, and consular protection, among other areas. In particular, the Global Compact on Migration's Objective 12 specifically emphasizes the need to "increase transparency and accessibility of migration procedures by communicating the requirements for entry, admission, stay, work, study or other activities, and introducing technology to simplify application procedures, in order to avoid unnecessary delays and expenses for States and migrants" (para. 28(a)).

Objective 12 underlines the global importance of incorporating digital technology into States' national migration governance approaches, and this has been noted in regional and interregional migration consultative dialogues like the Colombo Process and the Abu Dhabi Dialogue. [4] Yet, despite these ongoing discourses on developing digital technology's role in migration governance, the vast majority of countries of origin and countries of destination have neither fully realized nor fully framed the long-term developmental potential of digital technology in eliminating labour exploitation in the recruitment and placement of migrant workers.

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4   The full formal name of this consultative dialogue is the Abu Dhabi Dialogue Among the Asian Labor Sending and Receiving Countries.

Fair and ethical recruitment cannot be achieved and scaled through technology alone – however, technology can and is being used to alleviate some specific identified challenges. While labour migration and recruitment of workers across borders is a complex and multi-layered process, it is also, in practice, a series of business processes that can be isolated and quantified. Technological applications can, in some contexts, improve these targeted processes and contribute to better results for workers and employers. Specifically, technology applications can enable oversight by governments of migration processes and conditions, can help to eliminate illegal or unethical recruitment processes by private recruitment agencies (PRAs), and to establish a more transparent, fair and ethical process for all. In addition, digital technology platforms may be viewed as a means for potentially replacing PRAs altogether through government-to-government, or government-to-business recruitment.

This study aims to broadly map the existing online digital technology platforms by countries of origin and countries of destination which focus on facilitating fair and transparent recruitment and/or the job matching process for migrant workers. Specifically, this involves an examination of four digital technology platforms:

1. Employment Permit System (EPS) of the Republic of Korea;

2. Musaned system in Saudi Arabia;

3. eMigrate system in India; and

4. European Employment Services (EURES) system in Europe (see table 1).

▶ **Table 1.** Selected state-facilitated digital technology platforms

Case country	Name of the digital technology platform	Description
Republic of Korea	Employment Permit System (EPS)	A website deployed by the Republic of Korea that enables various functions of recruitment for migrants of selected Asian countries of origin.
Saudi Arabia	Musaned	The online recruitment platform for recruitment of domestic workers in Saudi Arabia.
India	eMigrate	A website that digitizes the emigration process and provides related Indian Government services electronically.
Europe	The EURES European Job Mobility Portal	A website that connects jobseekers to jobs in the European region.

Source: Compiled by author

Digital technological platforms related to recruitment and placement perform four main functions: (1) coordination of recruitment; (2) information dissemination; (3) access to grievance processes; and (4) linking workers to job opportunities. As table 2 outlines, the EPS, Musaned, eMigrate and EURES each perform multiple functions to promote fair, transparent and ethical recruitment processes. For example, digital technology platforms like EPS, Musaned and eMigrate offer effective recruitment coordination between governments or PRAs, information dissemination related to rights in the labour market and responsibilities, and access to grievance processes for migrant workers. Europe's EURES directly links migrant workers to employment opportunities across the European labour market. These diverse and complex platforms also reflect the complex and multiple interests, agendas and priorities of States in tackling core issues shaping the global recruitment and placement of migrant workers.

▶ **Table 2.** Typology of digital technology platforms

Functionality of the digital technology/platform	Digital technology platforms
1. Coordination of recruitment	EPS, Musaned, eMigrate
2. Dissemination (information, services)	EURES, EPS, Musaned, eMigrate
3. Access to grievance processes	EURES, EPS, Musaned, eMigrate
4. Linkage of workers to job opportunities	EURES

Source: Compiled by author

This study intends to offer preliminary guidance to governments developing online applications and platforms that facilitate recruitment and placement of migrant workers. It also attempts to identify critical approaches on how to best leverage new techniques and technologies, including blockchain technology, particularly with a focus on labour migration to the Middle East.

The study is divided into three sections below. Section 2 of this report provides an analytical overview of government-facilitated digital technology platforms in select country case studies (the Republic of Korea, Saudi Arabia, India, and across Europe). Section 3 examines current and emerging digital technology and platforms, such as blockchain technologies, that may be relevant in developing or enhancing online digital technology platforms in order to eliminate recruitment malpractices. The last section summarizes government-specific guidance and recommendations on how the working indicators (listed below) can be further enhanced through the application of new technologies and techniques, while supporting policymakers to improve the development of their existing labour recruitment systems through digital technology.

Using working indicators – transparency, efficiency, cost, regulatory oversight, alignment with international labour standards, data protection, and accessibility – the study identifies how existing platforms could promote aspects of fair recruitment, while providing examples of emerging technologies that have potential for future use. While it is beyond the research scope and purpose to provide a longitudinal examination, the study highlights important aspects of digital technology platforms, as well as lessons learnt and promising practices, for the benefit of those governments that are seeking to establish similar digital technology platforms.

▶ 1.1. Methodology

To critically examine the diverse state-facilitated digital technology platforms that promote fair and transparent recruitment, placement, and job matching, the study has utilized and applied working indicators throughout field interviews conducted in the Republic of Korea, Saudi Arabia, India and Europe (see table 3). The study was developed by the lead researcher (based in the United States of America), supported by national researchers covering each of the four platforms reviewed (all based in-country or in the region).

Primarily, the research is centred on extensive desk review conducted by researchers, coupled with interviews with government officials who implemented, authorized, resourced, or developed the online platforms, as well as (where possible) other stakeholders, including workers, employers and PRAs. Some of these interviews were in-person or through focus group discussions, and some were conducted through online surveys developed by the national researchers. Survey questions varied in the different regions but were all guided by a central questionnaire highlighting the indicators established.

Details on specific country-level methodologies can be found in the Appendix of this report.

▶ **Table 3.** ILO/IOM's selected indicators

Indicator	Context
1. Transparency	Ensure that all parties utilizing the platform are aware of the processes, obligations and expectations.
2. Efficiency	Enable rapid access to job opportunities and quicker migration processes.
3. Costs	Guarantee that migrant workers are not charged illicit recruitment fees and/or related costs, and ensure the provision of fair and justifiable costs to employers.
4. Oversight	Facilitate labour inspection and oversight by regulatory authorities, particularly towards upholding local laws and internationally accepted labour standards.
5. Data protection	Ability to ensure the intent and ability of platforms to protect all user data and privacy.
6. Accessibility	Access to the platform by diverse populations with varying cultural, literacy and linguistic backgrounds, including outreach conducted to target users.
7. Usability	Refer to the ease of use of the platform's features by its intended users.

Source: Compiled by author

The desk research included a critical review of relevant local and international publications relating to recruitment, migration processes, and migrant workers' experiences. This enabled an evaluation of the relevance and applicability of digital technology platforms in promoting fair and ethical recruitment. These relevant publications included materials provided by participating States and expert organizations, as well as publicly available news articles and press releases, academic and policy presentations, evaluation reports, and non-governmental organization (NGO) reports accessible through online keyword searches.

Ethical considerations

To protect the confidentiality and anonymity of research stakeholder participants, the authors guaranteed that both written and verbal consents were provided by all research participants prior or during the personal interview or group discussion in order to reinforce their right to participate or terminate their research engagement. National researchers ensured that all consent forms were translated or explained in the participants' respective local languages to ensure clarity and transparency. The participants' personal or institutional affiliations or characteristics were also removed, while all online survey questionnaires were anonymized.

Research limitations

A key limitation of the study is that interviewees were largely confined to experts (particularly government officials), and the researchers had limited access to the views of the ultimate users of the platforms (migrant workers, recruitment agencies and employers). Stakeholders were selected for interviews in order to provide an indication of the range of issues, developments and views, to better understand the functionality of each platform. However, more comprehensive qualitative and quantitative research with the ultimate users of the platforms, particularly migrant workers, would be a very useful endeavour for future research. The study is, therefore, exploratory in nature and not intended to provide an independent assessment of the platforms.
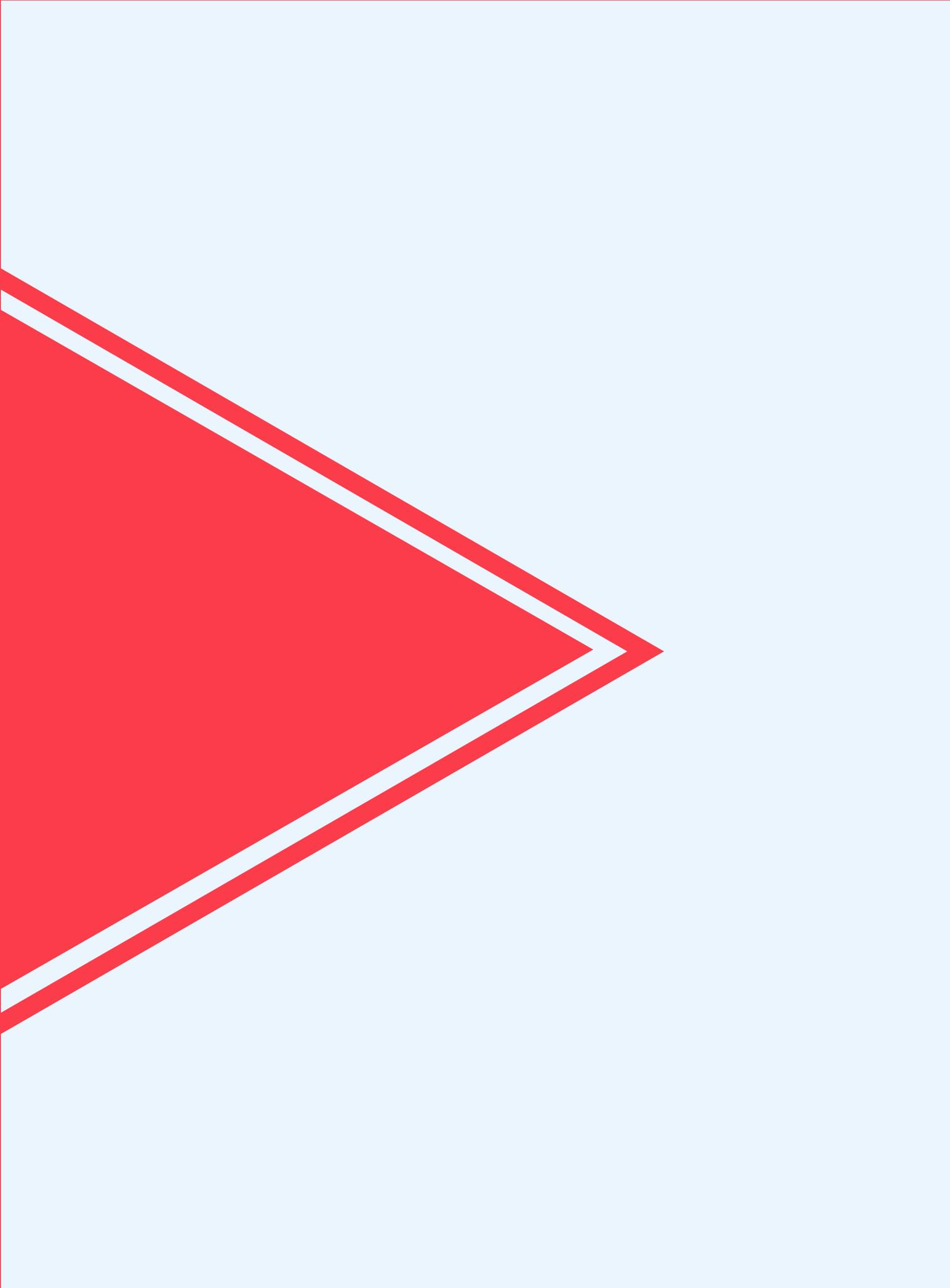
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Analytical overview of state-facilitated digital technology platforms

To address national labour shortages in countries of destination, and for countries of origin to facilitate the orderly recruitment of their nationals, countries around the world have been assessing opportunities to develop and integrate digital technology platforms to govern the recruitment, placement and job matching of migrant workers. Table 4 summarizes the selected four digital technology platforms, highlighting their goals in relation to transparency, efficiency, cost, and oversight.

▶ **Table 4.** Summary of state-facilitated digital technology platforms			
Year established	**Digital technology platform**	**Government authority**	**Transparency**
2004	EPS	HRD Korea and public employment services in countries of origin	▶ Shifts recruitment [private recruitment government public services.
2015	Musaned	Ministry of Human Resources and Social Development	▶ eTawtheeq system of visa issuance an documents. ▶ Enables stakeholde updates.
2014	eMigrate	Ministry of External Affairs, Overseas Affairs Division	▶ Access to relevant i regarding migratio rights and respons
2003	EURES	**European Coordination Office (ECO)** – At the European level, the network is coordinated by the ECO, established within the European Commission's Directorate General for Employment, Social Affairs and Inclusion. The ECO is also responsible for managing the EURES portal. **National Coordination Offices (NCO)** – Each country has appointed an NCO for EURES, responsible for coordinating the national network of Members and Partners.	▶ Standardizes worke common classificat ▶ Universal CV builde and employers stru experience, and job better matching to

n/a = not applicable
Source: Compiled by author

The following section provides an analytical overview of the EPS, Musaned, eMigrate and EURES digital technology platforms, and highlights their background, components, platforms and capabilities to perform against the ILO/IOM working indicators specified in table 3 above.

	Efficiency	Cost	Oversight
process from t agents to t employment	► Intermediation services provided by public employment services facilitate the quality and speed of job matching enabled by technology.	► Reduced migration costs from US$3,500–4,900 to approximately US$940.	► Grievance reporting system has reduced delays in wage payment and occupational accidents.
enables tracking d contractual ers to monitor for	► Decreased processing time from four to five months down to two to six weeks.	► There are no costs to be covered by the worker.	► Hotline for workers and their families to report grievances and receive updates.
information n process and ibilities.	► Electronic system has expedited the recruitment process from two to three months to two weeks.	► Workers are not required to pay recruitment fees, although labour recruiters can charge workers up to US$420 in fees (reports from workers indicate they pay more in practice).	► Government can access all information and suspend offending labour recruiters. ► State governments can investigate offending agents operating in their jurisdictions. ► Multilingual hotline for grievances.
r CVs using a tion system. r helps workers ucture skills, work o demands for available jobs.	n/a	No costs for users to utilize the EURES platform outside of relocation costs.	► Multiple channels for reporting grievances via a helpdesk (webform, Skype and toll-free numbers).

▶ 2.1. The Republic of Korea – Employment Permit System (EPS)

Established in 2004, the Republic of Korea's EPS is a cross-border government-to-government recruitment system that aims to regulate and facilitate the employment, placement, and job matching of low-skilled foreign workers. As a non-seasonal foreign worker programme, the EPS focuses on specific employment sectors, including manufacturing, construction, agriculture and livestock, fishery and other service-related occupations (UNPSA 2011). The EPS initially established partnership with six countries, but has since forged memoranda of understanding (MoUs) with 16 other countries: Bangladesh, Cambodia, China, Indonesia, Kyrgyzstan, the Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Timor-Leste, Thailand, Uzbekistan and Viet Nam. With direct regulatory oversight from the Republic of Korea's Prime Minister's Office, the Foreign Workforce Policy Committee specifically determines the participating countries' migrant labour quotas every year.

The EPS digital technology platform is considered by some researchers to contribute to establishing best practices in facilitating low-skilled labour migration (Cho et al. 2018). It has demonstrated a strong capacity for increasing institutional fairness, efficiency and transparency in the labour recruitment process; reducing migration cost; and improving the labour rights of low-skilled migrant workers.

Prior to the establishment of the EPS, the Republic of Korea had set up in 1993 the Industrial Trainee Scheme (ITS), which introduced and classified low-skilled migrant workers under a "trainee" programme.[5] The ITS's lack of transparency (Hahn and Choi 2006) was a problem, as administrative procedural issues, such as trainee selection and placement procedures, were dominantly controlled by PRAs, thereby promoting a work environment that was conducive to potential corruption.

Under the ITS, PRAs in countries of origin were principally responsible for the selection of industrial trainees, a process that inevitably resulted in higher recruitment fees, exploitative and manipulative behaviour by recruitment agencies, and a growth in undocumented migration. As a result, the Republic of Korea established the EPS to simplify and consolidate the function of the foreign labour admissions system; to effectively address domestic labour shortages; to protect employment opportunities for nationals; and to eliminate corruption by ensuring fair, transparent and ethical recruitment.

Acting as a migration governance system, the EPS is also strictly administered through the EPS online digital technology platform and mobile phone application, offering multiple services ranging from application submission and job matching for prospective and current migrant workers and employers, to specific migrant welfare and reintegration services in migrant workers' countries of origin. In particular, the EPS uses an intranet system in processing applications, job matching and other technical support services for migrant workers and employers. It has multilingual functions designed to meet the needs of the migrant workforce. Countries of origin utilize the Sending Public Agency System (SPAS), which functions as a jobseeker roster transfer platform that facilitates the recruitment of low-skilled migrant workers for employment in the Republic of Korea.

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5   Since low-skilled migrant workers were officially classified as trainees, and not employees, they were legally excluded from the labour laws of the Republic of Korea. Low-skilled migrant workers, who often had incurred debt in order to pay the exorbitant costs required to come to the Republic of Korea for work, found their monthly trainee allowance insufficient to pay off their debts.

▶ **Figure 1.** The EPS process
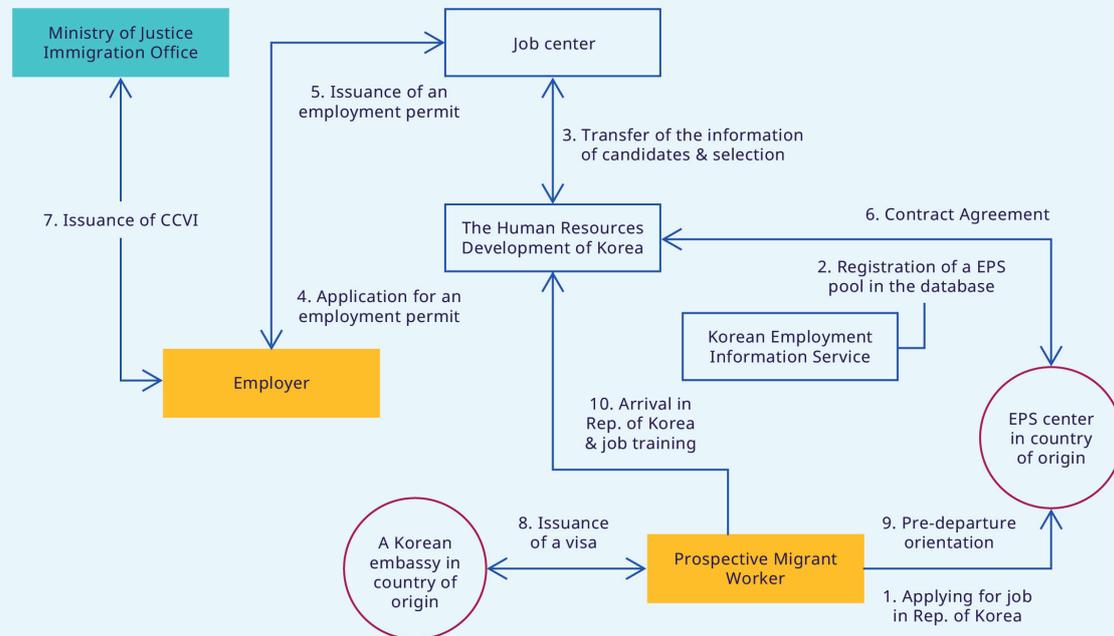
Source: Republic of Korea's EPS website

2.1.1. Key components of the EPS platform

Application and pre-job matching functionality

In facilitating migrant recruitment, the EPS follows several multilevel steps in the application and pre-job matching processes (see figure 1 for a general overview). In the initial screening process, jobseekers need to pass a language proficiency test, fully implemented by the Human Resources Development Service of Korea (HRD Korea) in joint collaboration with the designated public agency in countries of origin. Local EPS centres, for example, announce the test date, the registration and job application process, and other related labour market recruitment information. If online digital technology is unavailable, in-person registration services are often provided at designated centres. Under the points system for selecting EPS workers, those who have passed the Korean language proficiency test (EPS TOPIK) can take a skills level test. Prospective EPS workers are selected based on the sum of the scores of the skills level test and the vocational ability test.

In the EPS online system, prospective workers specifically indicate their industry and workplace location preferences, while simultaneously providing online biographical information, including their age, height, weight, educational attainment and work experiences. After passing the state-mandated medical and skills testing, jobseekers' profiles are then registered in an online roster on the EPS platform. HRD Korea verifies the jobseekers' registered information, and through the use of a points-based rating system, it selects three shortlisted candidates for each registered employer to choose from. At this particular stage, HRD Korea and the EPS centre in the country of origin both inform the jobseekers that their inclusion on the online roster – which is only valid for one year – does not guarantee a job placement. When their place in the roster expires, jobseekers can be registered again. Figure 2 below provides an example of a migrant worker/jobseeker profile page on the EPS website, in this case of a prospective worker from the Philippines.

▶ **Figure 2.** An example of a migrant worker/jobseeker profile page on the EPS website

Source: www.eps.go.kr

Job matching and selection, and pre-departure training

The Republic of Korea's EPS mainly focuses on labour recruitment for low-skilled manual work jobs. After the initial screening is completed, employers select their desired job candidates and prepare standard employment contracts, which are disseminated to the prospective workers in advance prior to their arrival in the Republic of Korea. In fact, the standard employment contract is systematically transferred to the sending agency in countries of origin by the SPAS.

Once the candidate accepts and signs the employment contract, the officially signed contract is used by the employer to apply for the selected worker's Certificate for Confirmation of Visa Issuance (CCVI), issued by the Republic of Korea's Ministry of Justice. Upon receiving the CCVI, migrant workers then apply for a visa (E-9 visa) through the Republic of Korea Embassy in their country of origin. Upon issuance of a visa, the worker enrols in a pre-departure orientation training class offered in their country of origin in preparation for their deployment to the Republic of Korea.

The EPS primarily facilitates the job matching and visa issuance processes through its digital technology platform. In particular, each job application is systematically monitored by government officials and by workers through the EPS website and its mobile application. Prospective migrant workers can also easily register on the EPS website after their employment contract is formally signed. Using their foreigner registration number and passport information, prospective migrant workers have the option to regularly check and track their employment status, training records, and other relevant labour market information. If certain contractual disputes arise between the employer and the worker, migrant workers can use the EPS to file and monitor their grievance applications in their own native language.

Post-arrival service support and assistance in the Republic of Korea

Despite the EPS shifting its recruitment process towards digital channels, in-person job centres still play a key role in recruitment management once migrant workers are in the Republic of Korea. Upon their arrival, migrant workers are

officially greeted at the airport by an HRD Korea staff person, where they receive three days of mandatory state-led post-arrival orientation training. The aim is to comprehensively inform migrant workers about their legal rights and obligations, as well as to provide information on culture, workforce expectations and norms. In cases where migrant workers choose to change their job or industry, a formal submission of intent with clear and reasonable justifications is administratively required. This request can be made either to the job centre or can be done online through the EPS. The job centre is then responsible for finding a new employment match for migrant workers within a three months' period. During this period, employers may view the available pool of migrant workforce candidates through their EPS accounts, and can select, contact and arrange job interviews by telephone or in person. If the digital technology platform becomes inaccessible, a regional job centre can, alternatively, aid or facilitate the local recruitment process between the employer and migrant workers.

Reintegration assistance for migrant workers seeking to return to countries of origin

Reintegration services for migrant workers are also provided in a separate section of the EPS online platform called "Return Job" (figure 3). Key technical services include provision of information on available jobs in the country of origin (largely populated by employers making requests to HRD Korea to upload their vacancies), and vocational training courses. Implemented in 2011, the Republic of Korea's "Happy Return Program" facilitates the employment or business start-ups of EPS migrant workers upon their return home by providing necessary training and consultation services at various support and counselling centres operated by HRD Korea.

Migrant workers who complete their contractual duration can opt to continue their employment in the Republic of Korea through the "Returning Worker Program", under the condition that they continue with the same employer. Contracts for EPS migrant workers who qualify for the program can be extended for another four years and 10 months after completing their initial contract. In between these contracts, however, the workers must leave the Republic of Korea for a period of at least three months. If they choose to return for employment purposes, they are exempted from the EPS skills tests; while their employers would also not be required to prove their inability to recruit domestic labour. Table 5 below provides a further summary of the EPS's key components in facilitating the recruitment and placement of migrant workers in the Republic of Korea.

▶ **Figure 3.** Return Job services for returning EPS workers

Source: https://eps.hrdkorea.or.kr/e9

▶ **Table 5.** Overview of the EPS functional platforms

Stakeholder	EPS website	Mobile application
Registered migrant workers	▸ Job sectors that are hiring. ▸ Application details. ▸ Standard employment contracts. ▸ Information on pre-departure orientation. ▸ Recruitment process. ▸ Rights and duties of migrant workers.	▸ Check the status of their workplaces. ▸ History of their job-related training. ▸ Retirement benefits offered by the employer for the specific job. ▸ GPS enables and allows users to find and access job centres or counselling centres in their vicinity or within a preferred location. ▸ The application also has a "push" notification function, which alerts users of important announcements.
Registered employers	▸ Track the progress of their application for employment permits and job-related requests. ▸ Re-apply for employment permits after their respective migrant employees complete their contract period.	

Source: Compiled by author

2.1.2. Review of indicators

Transparency

The Republic of Korea's EPS digital platform focuses on establishing full institutional transparency in the recruitment process. To promote such transparency, public institutions under the Ministry of Employment and Labour were designated to administer the EPS and other matters related to the digital recruitment system. Analysis of the EPS platform reveals that more than 68 per cent of interviewed migrant workers described the digital recruitment process as "fair and transparent" (Seol and Ko 2015; Lee 2014). These empirical results further reinforce other previous findings about the direct linkages between the current EPS platform and the rise of transparent recruitment systems in the Republic of Korea's labour market. Additionally, focus group discussions for this study have found that, after the implementation of the EPS, the institutional roles and influence

of PRAs (and their subagents) were reduced. These findings are consistent with the survey results from this study: 13 of the 20 interviewed migrant workers in the Republic of Korea agreed that "due to the EPS platform, the recruitment process has become more transparent". In addition, 17 of 20 interviewees agreed or strongly agreed that the "corrupt behaviours by labour agencies have reduced" due to the strict institutional implementation and monitoring of the EPS's recruitment system.

The EPS's ongoing progress is not only rooted in its digital technological design, but also reflects a political commitment of the Republic of Korea's Government to reinforce institutional accountability and transparency in the migrant recruitment process. For example, migrant workers have the power to report unethical behaviour and other corrupt practices during the recruitment process through the EPS centre in their country of origin or by calling the hotline (+82-1350) in the Republic of Korea.

▶ **Table 6.** Number of EPS inquiry calls (2016–18)			
	2016	**2017**	**2018**
Total number of calls	80 059	87 823	40 201

Source: Internal data received from the call centre operated by the Ministry of Employment and Labor

As table 6 indicates, the total number of EPS inquiries between 2016 and 2018 appears to have dropped by nearly 50 per cent – from 80,059 in 2016 to 40,201 in 2018 – which could, in part, be attributed to greater transparency and the awareness of EPS stakeholders regarding current policies and procedures. Complaints submitted via the hotline or EPS centres are managed by the Ministry of Employment and Labor, and the complainants' personal and institutional identities and other related information collected during counselling services are legally protected and kept in full confidentiality to promote a culture of transparency and accountability. As a result, the Republic of Korea's EPS may have contributed to reducing corrupt conduct and potentially improved migrants' access to legal and institutional grievance mechanisms.

Efficiency

The duration from the start of the employer application to the arrival of the worker is about three and a half months. To avoid the wait, authorized employers can recruit from the pool of unemployed EPS workers already in the Republic of Korea (Chaloff 2019).

Research indicates that the EPS has been able to effectively facilitate and monitor with a high accuracy the labour matching process of workers with jobs. In the past, under the ITS, migrant workers were selected by the labour recruiters and assigned randomly to an employer. Due to this recruitment structure, employers' preferences during the recruitment process were excluded, which resulted in severe job–skills mismatches, as well as high workplace turnover rates that averaged up to 80 per cent (Yoo and Lee 2001).

When the EPS platform was initially introduced, the turnover rate of EPS workers during its first year remained high, with the average turnover rate reported at 21 per cent over the past three years. An inefficient job–skills matching mechanism primarily acted as a critical factor for the high EPS workforce turnover (Jeon and Lee 2017). This particular issue emerged from the discrepancies between migrant workers' expectations and actual working conditions. Since the EPS's objective was to address the existing labour shortages in highly precarious and low-skilled sectors in the Republic of Korea, migrant workers may have had a higher skillset or work expectations than the jobs to which they were matched, thus triggering them to abandon their initial employment in order to secure a higher paying employment locally.

Application of new features to the digital recruitment platform, including video-embedded profiles of migrant workers, could mitigate the job–skills mismatch issue. These video-embedded profiles would provide employers with more detailed information about the candidates' linguistic knowledge, competencies and physical abilities, thus bridging potential information gaps about the employers' or workers' skills profile. This solution could also empower local employers to better identify desirable candidates and make informed selections, while at the same time eliminating any false narratives or information about the employment conditions. Social media-based interviews can also be conducted over WhatsApp, Skype, Facebook Messenger or other comparative mobile phone applications between employers and migrant workers in order to equally enable both parties to better demonstrate their competencies and enhance job–skills matching processes and expectations.

Cost

The Republic of Korea's EPS platform has decreased the recruitment costs between the Republic of Korea and countries of origin. However, it is unclear whether digitization has played a significant contributory role. In 2016, the Republic of Korea acknowledged that the average recruitment cost to migrant workers in 2014 was US$941, a large reduction compared to the average cost of US$3,509 under the

ITS prior to 2004 (Park and Kim 2016). Under the ITS, PRAs were able to independently set their own recruitment market fees because no systematic recruitment process existed. These recruitment agencies were also not subjected to regular inspection and monitoring by their respective government authorities, thus enabling them to charge exorbitant recruitment fees to migrant workers. Under the EPS, bilateral MoUs that govern labour cooperation between the Republic of Korea and countries of origin stipulate both parties' institutional power to determine migration fees, which include health check-ups, job application, as well as passport and visa costs. The close bilateral State cooperation and regulations have assisted in mitigating market exploitation by limiting recruitment agencies' power to impose exorbitant fees and other related costs on migrant workers, rather than the digital platform per se.

Oversight

The EPS's strong regulatory oversight appears to have enhanced workers' rights and welfare in the recruitment process. As opposed to the ITS, the EPS has substantially mitigated migrant worker exploitation and increased worker protection. This institutional improvement has largely been linked with recruitment system reforms and structures, which principally involve only designated public state institutions in countries of origin and in the Republic of Korea. A grievance reporting system and regular monitoring and inspections of EPS institutions in countries of origin have strongly contributed to increased regulatory and institutional oversight.

Despite such institutional oversight, however, many migrant workers still face labour rights challenges within the Republic of Korea's labour market. In a 2015 survey, Seol and Ko found that more than a quarter of migrant workers (25.5 per cent) identified various workplace labour and human rights violations or unjust behaviour in the workplace. This finding is indicative of broader concerns over the perceived insufficient technological capacity of the EPS to eliminate illegal or unethical recruitment and employment practices. Between January and June 2014, Amnesty International (2014) found only 1,490 complaints (out of 250,000 EPS migrant workers) had been filed with the Ministry of Employment and Labor, suggesting potential underreporting of labour issues by migrant workers who may fear administrative retribution (such as lay off, termination, deportation). To mitigate these labour and human rights violations faced by migrant workers, the Government has been making efforts to ensure that employment grievance procedures pertaining to work-related issues can be rigorously addressed at job centres or through NGO support services, in order to uphold a fair and equitable dispute resolution process between migrant workers and their employers.

▶ **Table 7.** HRD Korea's comparative data on delayed wage payment and occupational accidents

Classification	Delayed wage payment (%)	Occupational accident (%)
ITS	36.8	0.9
EPS	1.1	0.58

Source: Internal data of HRD Korea, adapted from Park and Kim, 2016

2.2. Saudi Arabia – Musaned

Established in 2015, Saudi Arabia's Musaned is the online digital recruitment platform for domestic workers in Saudi Arabia. Overseen by the Ministry of Human Resources and Social Development (MoHRSD), Musaned has provided the MoHRSD with a wide range of data and tools to enhance their monitoring capabilities over the employment of migrant domestic workers. The main objectives of Musaned include the following:

▶ Govern and control the recruitment contracting process for migrant domestic workers.

▶ Eliminate unethical or illegal recruitment practices operating in the "black market" sector.

▶ Promote transparency in the recruitment and employment of domestic workers.

▶ Act as a source of reliable information for employers, domestic workers and all other stakeholders.

▶ Reinforce institutional accountability by offering domestic workers direct digital access to grievance mechanisms.

Musaned was established, in part, to address issues faced by migrant domestic workers, including unethical or illegal recruitment and employment practices in Saudi Arabia (such as contract substitution, delayed wages, limited access to grievance mechanisms). In particular, the pervasive nature of contract substitution had generated significant labour complaints from both migrant workers and employers, and triggered domestic workers to resign, impacting overall labour productivity levels. As a result, the MoHRSD led national and regional initiatives to control and govern the recruitment process of migrant domestic workers through the integration of digital technology platforms. For instance, the "eTawtheeq" system, a component of Musaned, was launched to regulate and automate the contractual process for the employment of migrant domestic workers, and also created a technology-enabled means for the MoHRSD to complete and monitor the contracting process in order to tackle any illegal or unethical recruitment practices. The research findings suggested that Musaned has substantially improved the degree of transparency in the migrant domestic workers' recruitment process; however, many migrant domestic workers and employers still displayed a high degree of dependency on local agents to directly manage the migration process for them due to weak technological and linguistic capabilities.

Musaned has also established the capacity to enable users to directly monitor and verify a PRA's registration and license information or, in some cases, view their user rating performance as provided by migrant workers. Musaned allows users to maintain an online repository of key documents, such as employment contracts (reducing the risk of contract substitution), and official copies of passports and birth certificates, which are administratively required when migrant workers wish to lodge a labour complaint or apply for a new job. This digital recruitment platform also provides employers and regulatory authorities with a higher degree of regulatory visibility in tracking the entire recruitment and work placement process. Lastly, Musaned, in principle, provides migrant workers with labour market information through online educational materials, including information pertaining to recruitment fees and related costs and other important pre-departure and post-arrival orientation programmes.

Figure 4. Key components of the Musaned ecosystem
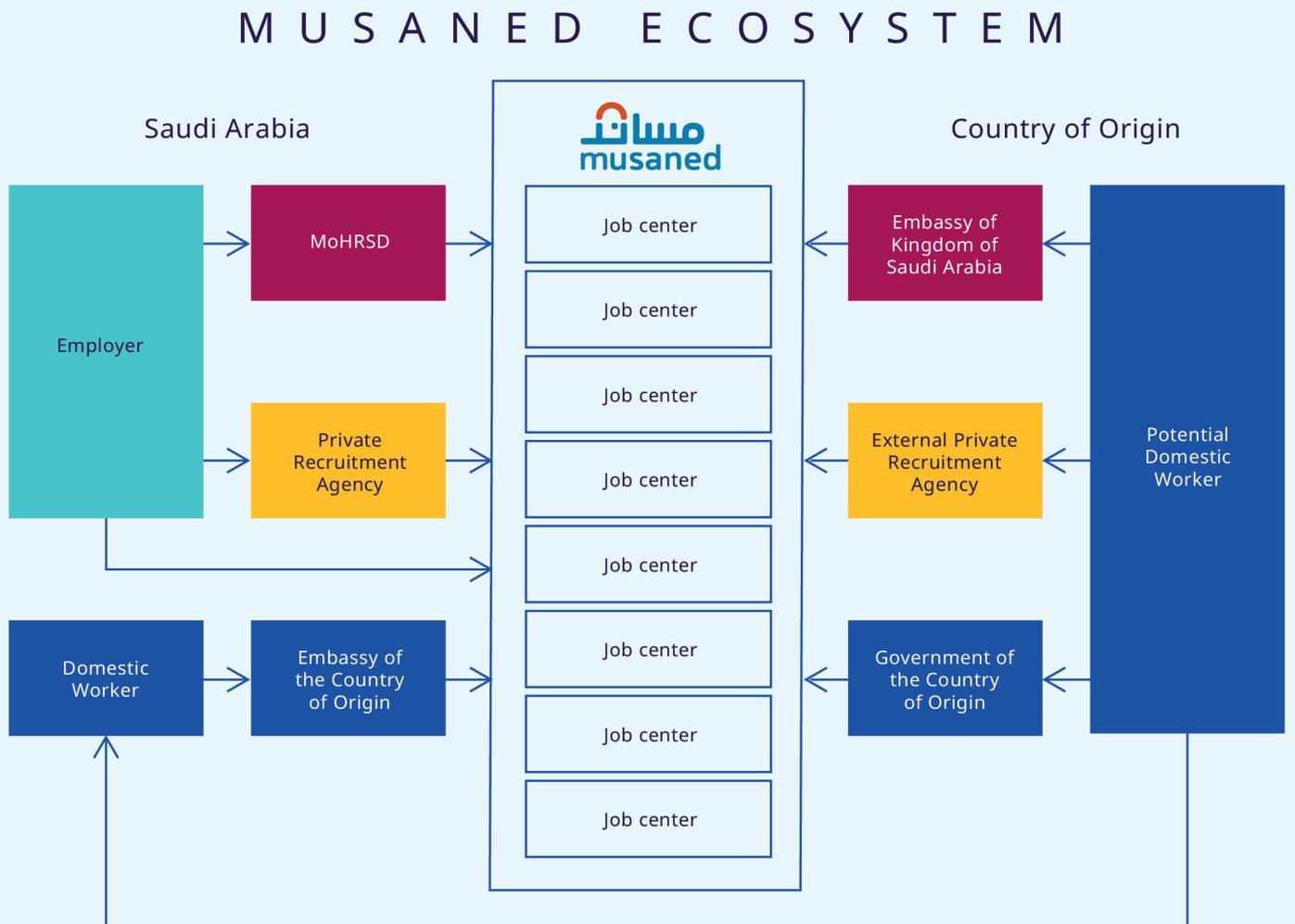
Source: Musaned's official website

2.2.1. Components of the Musaned platform

The key components of Musaned are shown in Figure 4 above. Musaned offers key technical support services to migrant workers and employers, including an information portal, eTawtheeq, and a multilingual complaint system. These particular technical services are intended to promote a fair and transparent recruitment process, and to mitigate the issue of asymmetric information between and among stakeholders within the general labour recruitment processes. Figure 5 below provides an overview of the Musaned recruitment procedure.

Information portal

The information portal is a comprehensive repository of all labour market information related to policies, procedures and the latest news on the recruitment or employment of migrant domestic workers in Saudi Arabia. In particular, Musaned's information portal provides key information related to the rights and duties of all participating contracting parties in the recruitment process, as well as an approved list of authorized and licensed recruitment agencies operating in the country (both in Arabic and translated into English).

▶ **Figure 5.** Musaned's recruitment procedure

H O W   I T   W O R K S ?

STEP 1

Evisa

Issue your visa online with your preferred nationality and occupation

STEP 2

Econtract

Get access to recruitment offices and companies with variety of offers and nationalities

STEP 3

Easy payment and online tracking

STEP 4

Arrival of the domestic worker

Source: Musaned's official website

Recruitment permission system

The recruitment permission system regulates both the eligibility of applicants and the licensing of labour recruiters. Under Musaned, "applicant eligibility" mainly refers to a system that determines and verifies the eligibility of the visa sponsor (that is, the potential employer) to hire a migrant domestic worker. The labour recruiter licensing system, however, governs the application and issuance of business licenses for local PRA businesses, often evaluated against the established government criteria. If a PRA meets those government criteria, they would be certified by the MoHRSD, enabling them to obtain digital access to the Musaned's full platform. In addition, the MoHRSD closely monitors the overall institutional performance of all the registered PRAs, rigorously utilizing criteria-specific metrics, including the total number of domestic worker resignations or contract terminations; voluntary returns; and labour complaints filed with the local police or courts. If those government-specific criteria have been violated, PRAs can face serious institutional or economic penalties, including license revocations and fines.

Visa issuance process

The employment visa issuance process initially starts when a recruitment agency – either public or private – based in the country of origin uploads a migrant domestic worker candidate's

curriculum vitae (CV) into the Musaned platform, followed by a direct submission of all the required documentation and information to their governing country's Ministry of Labour (MoL). The MoL then reviews all submitted CVs and determines all the candidates' eligibility prior to uploading these materials into the Human Resources (HR) Pool in the Musaned system. Saudi Arabia-based employers have full digital access to the HR Pool and can select their preferred candidate based on their standards and requirements.

Once the selection process is complete, a Saudi Arabia-based PRA, along with the employer, prepare and sign a standard template contract and a job offer, which will be provided to the PRA in the country of origin. The country of origin PRA then reviews and signs the employment contract (depending on the accuracy and completeness of the document) and shares the contract offer with the candidate for their review and signature. If the candidate approves the contract offer, the country of origin PRA re-uploads the signed employment contract into the MoL system. The country of origin's MoL receives the employment contract signed by all four concerned parties: the Saudi Arabian PRA, the country of origin PRA, the employer and the prospective worker. The MoL then finalizes, e-stamps and issues a travel document clearance for the prospective migrant domestic worker prior to submitting all the relevant documentation materials to the local Saudi Arabian Embassy. Depending on the completeness and accuracy of the official documents, the embassy has the final authority to issue the immigration entry visa to the prospective worker prior to their departure to Saudi Arabia.

The Musaned system is designed as an integrated solution for all parties, providing a direct interface process wherein PRAs can manage the contracting process based on employers' selection criteria and requirements. eTawtheeq automates the process of contract stamping for all stakeholders into a single digital platform, and shortens the time required to facilitate the recruitment and other documentation processes.

Complaint system

The Musaned platform also contains a complaint system mechanism. In its design, migrant domestic workers may initiate a labour complaint or inquire about their contractual rights and responsibilities. A support agent handles their queries and replies to their labour grievances directly. Administered in multiple languages, the complaint system aims to resolve all dispute issues within 48 working hours. However, actual data regarding the dispute cycle time between filing a complaint and achieving an effective resolution were not readily available to examine, nor was any information provided on the number and nature of complaints.

2.2.2. Review of indicators

Transparency

Musaned's central objective is to establish institutional transparency in the recruitment and employment processes of migrant domestic workers. One of the key intentions behind Musaned is to increase opportunities for information to be accessed by a number of stakeholders – including domestic workers and employers – to help them better understand their rights, their responsibilities and the steps of the recruitment process. Further inquiry, however, is needed to see how accessible the system is to migrant workers.

Musaned's paperless, digital system aims to standardize and unify labour market information on the recruitment and employment of domestic workers for all stakeholders, prompting employers to electronically confirm their understanding of their rights and obligations towards migrant domestic workers. Additionally, Musaned also provides an important platform to track all migration- and employment-related documents, as well as requirements and information from multiple sources, which can result in reduced fraud and deception. For example, employers can access all relevant information and transactions about domestic worker recruitment in a single digital platform. Government officials suggest that these processes have enabled employers to facilitate contractual arrangements and arrange visas and any payment-related processes in a timely and efficient manner.

While Musaned appears to have been transformative in many aspects, some key limitations have also been identified. First, Musaned's digital platform is only available in Arabic and English, thus creating challenges for

those stakeholders who do not read, speak or understand these two languages. Second, and related to the first limitation, migrant domestic workers do not appear to be accessing the system, and often rely on PRAs to provide information and interpret the Musaned process. In some cases, the issue of domestic workers' signatures being forged has been reported, questioning the capacity of the Musaned system to verify documentation and impose sanctions on potential violators. Although Musaned requires external PRAs to provide pre-departure orientation through a third party, it is unclear whether such orientation can fully mitigate any potential information asymmetry with regard to information provided to domestic workers on labour rights and obligations.

Efficiency

Musaned's digital technology platform appears to have contributed to the growing efficiency of the recruitment and employment of migrant domestic workers in Saudi Arabia. Prior to the implementation of Musaned, migrant domestic recruitment and employment to Saudi Arabia was mainly conducted through a paper-based process. This traditional bureaucratic system not only took at least four months, but also led to the heavy dependency on intermediaries or brokers to facilitate the contractual arrangement. With the establishment of Musaned, the process appears to have been reduced to two to six weeks from initiating the application process to obtaining approval. The paperless process minimizes the bureaucratic burden on migrant domestic workers who only need to visit the Saudi Arabian Embassy to submit their passport (for the visa stamping process) and collect their airline ticket from the PRA. Therefore, Musaned's process appears to have contributed to an increased institutional efficiency in the recruitment and employment of migrant domestic workers from countries of origin to Saudi Arabia.

Cost

Through the establishment of the Musaned system, the cost to the employer for recruiting a domestic worker appears to have been reduced. Prior to the introduction of the Musaned system, the lack of transparency in the recruitment pricing enabled PRAs to set excessively high recruitment fees. However, with the creation of the Musaned system, employers reported that the service prices of PRAs have decreased due to the transparency of the pricing (visible on one screen), which enables a comparative review. This may have prompted many PRAs to reduce the recruitment market prices in order to remain competitive in the Saudi labour market. Although the Government does not control PRAs' pricing schemes, the real-time, digital transparency of recruitment pricing in the Musaned system allows employers to see and compare all prices and make decisions accordingly. As such, the digitalized Musaned system has not only strengthened institutional transparency but also minimized potential "collusion" between and among PRAs in setting a high recruitment service fee in the domestic work sector. Interviews with Saudi officials also indicated that granting PRAs' access to an electronically managed network of employers has minimized their costs and bureaucratic/procedural constraints associated with travelling to the country of origin to establish direct links. However, there have not been any studies to date exploring the impact of Musaned on the costs paid by domestic workers themselves.

Oversight

Musaned has increased Saudi Arabia's regulatory oversight of PRAs, which may be helping to reduce migrant domestic worker exploitation in the recruitment and employment process through the centralization of digital, accessible data related to recruitment, complaints and wage payments A hotline number has also been communicated to all embassies and consulates of countries of origin, as well as Saudi Arabian overseas missions, enabling migrants' family members to report to the Saudi authorities on behalf of their impacted relatives. According to officials, this degree of regulatory oversight has empowered Musaned officials to review and revoke PRAs' licenses, as well as launch investigations and campaigns to reinforce institutional accountability against violators, and this has been corroborated in various independent media reports and analyses.

It is important to acknowledge, however, that no systematic analysis seems to have been conducted as of yet to examine how and when Musaned's digital regulatory oversight capability is utilized, and such an assessment would be important to examining the impact on addressing unethical recruitment practices.

▶ 2.3. India – eMigrate

Launched in 2014, eMigrate is an integrated, common digital electronic platform that provides a link between key stakeholders such as the:

▶ Protector General of Emigrants (PGE);

▶ Protector of Emigrants (PoE);

▶ Indian diplomatic missions;

▶ Bureau of Immigration;

▶ Passport Seva (the passport service);

▶ PRAs;

▶ Foreign employers;

▶ Emigrant workers; and

▶ Insurance agencies.

The PGE, which falls under the Ministry of External Affairs (MEA), is the principal authority responsible for enforcing the 1983 Emigration Act, and consequently oversees the eMigrate system. The eMigrate system has evolved to streamline the recruitment process, strengthen verifications and checks, and in some cases has helped to reduce corruption and costs for migrant workers. The eMigrate system is a government-financed model, and the process from initial conceptualization to the final rollout of the system took nearly a decade to complete.

As part of an overall nationwide initiative to digitize public services, the Indian Government introduced eMigrate in 2014. The system aimed to digitize the emigration process by providing efficient, transparent and orderly government services via electronic platforms for employers, workers, and the Indian Government officials overseeing the global deployment and recruitment process. While the systems of the Republic of Korea (EPS) and Saudi Arabia (Musaned) focus on delivering services to prospective inbound migrant workers, India's eMigrate system mainly provides services to outbound Indian migrants (specifically,

"Emigration Check Required" passport holders). With an estimated annual worker deployment of over 1.9 million (mainly to 18 countries), India is the biggest country of origin for migrants in the world, with 17.5 million persons living abroad, of whom close to 9 million are in Gulf Cooperation Council countries.

Because of the high outbound migration rate from India, the Indian Government developed the eMigrate system to digitally automate the MEA's activities as mandated under the Emigration Act of 1983. The eMigrate system is entirely funded by the Indian Government and was estimated to cost about 460 million Indian rupees (equivalent to US$6.5 million). This includes the development of the software, installation of hardware, and the functioning and maintenance of the system for a period of five years after rollout. It also includes data security, data sharing with other ministries and linkages with embassies.

In recent decades, the MEA has recognized the critical importance of digital information technology in realizing its broader objectives of delivering proactive welfare and protection assistance to Indian migrants, with the particular goal of streamlining the recruitment and outbound migration process. To support the conceptualization of e-governance in the migration process, the MEA engaged the National Institute for Smart Governance, a not-for-profit organization, to investigate and learn from global best practices in outbound migration and provide constructive implementation recommendations to better enhance the eMigrate system.

Designed to digitally convert the emigration clearance from a manual process to an electronic process, and to link various platforms to strengthen regulatory controls and increase efficiencies, the eMigrate platform recognizes labour recruiters as the interlocutors in the process. Thus, the eMigrate system was not primarily designed for prospective workers to use directly. Interviews with government

officials highlighted some of the promising practices of the eMigrate system, including:

▶ better data collection;

▶ improved tracking of outbound migrants' applications;

▶ enhancing accountability of recruitment agents;

▶ establishing a robust database of related data;

▶ easing emigration clearance;

▶ online submission of job applications;

▶ procedures for grievances and their follow-up; and

▶ bringing multiple services under one portal.

▶ **Figure 6.** eMigrate homepage

Source: eMigrate's official website

To initiate the recruitment process, a registered foreign employer submits an application on the eMigrate portal (see figure 6 above), including information related to job category; job role; number of vacancies; salary offered; expiration date of vacancy; and other terms and conditions, such as working hours, transportation facility and food allowance. In addition to job IDs, a demand letter and power of attorney are created by the system and sent to the employer via email. The demand letter and power of attorney are to be sent to the PRA after being physically signed by the foreign employer. The PRA acknowledges the demand letter and power of attorney; signs it; and uploads it into the system. The demand is approved and job codes for each of the vacancies mentioned by the employer are created. The system also allows employers to access the demands that have been previously approved.

Subsequently, PRAs apply directly to the Protector of Emigrants (PoE) offices in charge of the geographical area for each job ID. The PoE validates the documentation of the demand letter, power of attorney, minimum wages, employment contract and the Pravasi Bharatiya Bima Yojna (an insurance scheme) policy. The emigration clearance application is checked and can either be accepted or rejected. The PoE official needs to select the reason(s) for rejecting an application from a drop-down menu. After the documents are validated, emigration clearance is given to the migrant worker to travel within six months of the emigration clearance. The eMigrate system then automatically sends the data to the server of the Bureau of Immigration (BoI), making it available at all airports. Upon review of the passport, a BoI officer can validate the emigration clearance. Post-departure, the BoI shares information with eMigrate and the concerned Indian diplomatic mission in the migrant worker's destination country.

2.3.1. Key components of the eMigrate platform

eMigrate portal

The eMigrate portal allows prospective migrant workers to register with eMigrate via an online form enabling them to review their registration documentation, including information related to passports, visas, insurance, personal information, travel itinerary and contact and employment details (see figure 7). After completing the registration process, an online smart ID card is automatically generated, through which they can view their employment contract, track their application status or verify the emigration clearance.

The Pravasi Bhartiya Bima Yojna is a required insurance policy for acquiring an emigration clearance. It is purchased online from enlisted insurance agencies while registering for an emigration clearance. Under the policy, applicants are required to pay 275 rupees (US$4) for a two-year policy. Against the premium of 275 rupees (US$4), the emigrant is insured under an online policy worth 1 million rupees (US$14,000). These are the securities that the Indian Government guarantees to its workers who migrate to the 18 Emigration Check Required countries.

The Pravasi Bhartiya Sahayata Kendra helpline is also available in 11 languages to efficiently provide essential information, counselling and the submitting of grievances.

▶ **Figure 7.** eMigrate registration form

Source: eMigrate website

In addition, eMigrate has a grievance mechanism available to all migrants, both in India and respective countries of destination. For example, the grievance is forwarded to the PoE that gave the emigration clearance, from which it is then forwarded to the PRA. The PRA is mainly responsible for addressing the issues reported. A detailed list of PRAs (categorized by the Indian state in which they operate) is available on the eMigrate website, and information is provided on grievances received versus grievances resolved, making it easier for potential migrant workers to see online whether particular PRAs are associated with large volumes of complaints or demonstrate problems with complaint resolution.

A vital feature of eMigrate is that it has an "e-locker" feature, where the migrant worker's passport is digitally secured and accessible at all times. The system also saves employment contracts and other personal and professional documents required in global migration and recruitment processes. If a worker's physical passport or smart card has been lost, the e-locker system has the capacity to provide a digital record. However, presently, the e-locker is linked to the migrant's phone number in India. This means that once they are in the country of destination – with a new number – it is not possible for them to access this locker. The Indian Government is looking at ways to address this issue.

Recruitment agency portal

In order to obtain recruitment authorization, PRAs need to register and utilize the recruitment agency portal to facilitate any forms of recruitment through eMigrate. The PRA is required to submit proven documents, educational certificates, a registration certificate, a photograph and a bank guarantee. Only the PGE or the concerned PoE officials are authorized to access PRA registration applications and have the right to approve or reject applications. PRAs can also digitally track their application status, submit health policy claims, and renew their registration to conduct overseas recruitment. Registered PRAs also receive a performance rating based on certain conditions, including the number of employed emigrants, registered grievances versus those resolved, average time of grievance redress and suspension rates.

2.3.2. Review of indicators

Transparency

India's eMigrate digital technology platform appears to have improved institutional transparency in the recruitment and employment of Indian migrant workers. The digital structure and content of eMigrate reflect the State's strong commitment to and prioritization of fostering recruitment transparency. The eMigrate website's digital contents, including information, services and MEA communications, are organized in separate tabs (in English) for different users. These users include emigrants, employers and recruitment agencies. Additionally, the website outlines information for prospective migrant workers relating to the overall recruitment process, and information on the status of registered PRAs and employers. This information is further elaborated upon in the frequently asked questions section, and guidance is provided through multiple step-by-step digital platforms and via training videos, flow charts and pre-departure orientation manuals. Migrant workers also have full access to their application as well as the capacity to monitor and track its progress in the system. Direct assistance regarding information on laws, employment contracts, counselling and the submission of grievances is also available through a 24-hour helpline in 11 different languages under the Pravasi Bhartiya Sahayata Kendra of the MEA. These specific digital developments could increase access to key information among workers, employers and other stakeholders; however, there is no data available on the extent to which such information is accessible to workers specifically, and whether such access has improved their understanding of their rights, responsibilities and the processes within the eMigrate system.

In addition to enhancing transparency, eMigrate has also reinforced institutional accountability. For example, digital watch lists of employers with pending complaint cases are easily available to workers for their review and monitoring. Similar to the EPS and Musaned, migrant workers under the eMigrate system have the power to file a grievance complaint online through the website or through Madad, a state-facilitated consular grievance portal. Most reported labour and employment abuses or violations of contractual terms include, but are not limited to, poor working and living conditions, wage-related issues, complaints against employers' maltreatment, medical and insurance-related problems, and disability compensation or death claims. Online digital responses are automatically reviewed and provided; they can also be tracked by the complainant. Insurance-related claim submissions can be digitally filed through the eMigrate website in order to reduce time and cut through the bureaucratic layers of insurance claim filing.

One limitation is the workers' dependency on PRAs and labour recruiters to navigate the eMigrate digital platform, which could potentially impact the quality, accuracy, and type of information they receive.

The eMigrate system is only available in Hindi and English, and such limited linguistic translation could impact those migrant workers and employers who have an inadequate proficiency in either of these two languages.

Additionally, contract substitution is a highly prevalent issue in the recruitment of Indian migrant workers, whereby migrant workers often do not receive the same employment terms as those stipulated in the signed contract uploaded to the eMigrate system. In fact, migrant workers could potentially end up signing three contracts, including one with the PRA, one in the eMigrate system, and a third contract in the country of destination. This critical limitation of the eMigrate system needs to be offset by strong institutional monitoring and commitment, as it places migrant workers

in a precarious legal situation, leaving them vulnerable and unprotected in the labour market of the country of destination.

Efficiency

Following the establishment of eMigrate, the complex process and lengthy timeframe for the registration and renewal of PRA licences has been reduced from two to three months to just two weeks, with PRAs able to submit and track the status of their application online. PRAs are also required to obtain digital signature certificates, enabling them to sign documents and pay electronically, an important process that appears to have enhanced the system's efficiency, transparency, and accountability.

In addition, eMigrate also provides e-verification of passports. Previously, an immigration officer at the airport had to make a judgement on the authenticity of the documents, which, as information collected for this report also indicates, opened up the possibility of PRAs pressuring and bribing immigration officials to accept forged documents. With the digital eMigrate system, the new process links all relevant state systems so that passport clearance by BoI officials is instantly automated, thus reducing the opportunity for fraud and corruption. Prior to eMigrate, outbound migrant workers were also required to acquire clearance by having their passports physically stamped by the PoE at one of ten offices throughout India. Under the eMigrate system, this clearance is now generated electronically using digital signatures, and saving outbound migrant workers (or their PRA) the travel time and costs previously associated with the process.

Cost

With the digitalization of the eMigrate system, no additional costs have been levied on migrant workers for their usage of the website and its affiliated features. In fact, the Government of India does not require outbound migrants to pay any fees for migration, except the application fee for the emigration clearance. The other payment workers are required to make is towards an insurance policy – 275 rupees (US$4) for two years or 375 rupees (US$5) for three years – and this requirement was in place prior to the eMigrate system. More importantly, PRAs are officially authorized

by the State to charge outbound migrant workers a fee of up to a maximum of 30,000 rupees (US$420), plus taxes. An important concern, however, is PRAs levying excessive additional charges upon workers, including for training-related costs. There are currently no mechanisms in the eMigrate system to detect such extra costs, thus requiring strong state monitoring and investigation of participating PRAs in India. Unless specific instances with proof are brought to the attention of officials, it is not possible to detect overcharging. In addition, many migrant workers who have paid more than the stipulated amounts may not complain in order to keep their job offer safe.

Oversight

The PGE is the main regulatory authority that oversees eMigrate and all the information contained within the system. The PGE can block non-compliant PRAs and employers, as well as monitor its own satellite offices that work with PRAs and migrants. Prior to the implementation of the eMigrate system, foreign employers were not required to share any details with the Indian Government. The eMigrate system, however, currently mandates all foreign employers to register and provide official details about their business and recruitment operations, which has significantly expanded the Indian State's regulatory oversight.

As the regulatory oversight of India's eMigrate system expanded, the collection of foreign employer information required by eMigrate initially generated diplomatic issues with various countries of destination. For instance, the United Arab Emirates, one of the top countries of destination for Emigration Check Required workers from India, raised diplomatic concerns about the growing regulatory oversight of the eMigrate system, calling the digitalization process "intrusive" and "an impingement on their sovereignty" (Abdi 2017). Since these diplomatic concerns emerged, there have been bilateral discussions between the governments of India and the United Arab Emirates on how to better integrate eMigrate with the United Arab Emirates' employment portal to further streamline the recruitment and employment process for Indian nationals. Recently, a digital integration process has been established between the Ministry of Human Resources and Emiratisation of the United Arab

Emirates and India's eMigrate system, with defined processes for both Emigration Check Not Required and Emigration Check Required passport holders. Through this integration, employer and PRA details can be shared and matched with Indian migrant workers. Both governments have mutually identified further opportunities for development, including information technology integration to "further strengthen joint government oversight over recruitment and deployment processes", and "enable scrutiny over contractual relations" between employers based in the United Arab Emirates and Indian government agencies, as well as between United Arab Emirates and Indian government agencies (Abu Dhabi Dialogue 2019).

Moreover, the PGE also receives and tracks migrant workers' grievances through the eMigrate system and has the official authority to impose fines or suspend PRAs' licenses or other operations until they satisfactorily address the issues raised. The PGE can refer cases to state governments, which have the power to pursue criminal or civil actions against labour recruiters within their jurisdictions.

It should be noted, however, that approximately 500 unlicensed labour recruiters are listed on eMigrate, who simply exist outside the purview of the eMigrate system and who facilitate the recruitment and employment of migrant workers abroad. At present, no precautionary measures (except for the inclusion of their name and details on the eMigrate website) are in place to administratively restrict their agency operations.

The eMigrate system's function has also been linked with other state-facilitated migration initiatives, including pre-departure orientation training programmes in collaboration with the Ministry of Skill Development and Entrepreneurship. The training covers basic tenets of international migration, including the costs and benefits associated with migration, and how prospective migrants can prepare for a journey abroad. Pre-departure orientation certifications have been linked to the eMigrate system, and the Government can digitally track whether PRAs have ensured that prospective migrant workers have received the training, since emigration clearance can only be granted after the training is completed.

In summary, India's eMigrate system has not only increased its national and transnational regulatory oversight of the recruitment and employment of Indian nationals, but also spurred active engagement with complex opportunities and challenges with countries of destination on how to mutually digitalize the recruitment process and protect migrant workers' rights and welfare without encroaching upon another State's national sovereignty.

▶ 2.4. Europe – European Network of Employment Services (EURES)

EURES is a cooperation network formed in 1994, comprising the European Commission and members and partners in European Union (EU) countries, Iceland, Liechtenstein, Norway and Switzerland. The network consists of coordination offices (both European and national) and designated public employment services in each EU country, each with their own specific responsibilities. Other organizations – such as social partners – can join the network.

The main goals of EURES are to:

▶ improve transparency and information on job opportunities, as well as living and working conditions across borders;

▶ provide assistance for job placements and recruitment across borders; and

▶ facilitate cooperation between its member organizations and with stakeholders.

In recent decades, EURES has seen several amendments and changes due to new EU regulations. The rise of the internet and online platforms has enabled the EURES platform to reach a much larger audience. In the pre-internet era, there were only 5,000 posts in an offline database; in 2019, there were more than 3.5 million job vacancies online.

However, an ever-changing job market, the demand for new skills, job requirements, and an overall increase in cross-border exchanges has required the EURES platform to adapt as well. Moreover, EURES demonstrates promising practices to individuals from participating States who are seeking employment. EURES has 11 cross-border partnerships between national governments, managed through the EURES website to enhance the mobility of workers in specific regions. These partnerships also monitor mobility and collect data on job market developments to improve services and opportunities for workers at various stages of their respective careers. Current programmes in place include job placement projects catering to jobseekers over 35 years and cross-border apprenticeships schemes. Among others, the "Targeted Mobility Scheme – Your First EURES Job" [6] aims to help young EU citizens aged 18–35 to find a job, traineeship or apprenticeship in another Member State, and for employers – particularly small- and mid-size enterprises (SMEs) – to find the skills they need for their businesses.

To live up to its promise to make it possible for all citizens of partner States to find cross-border employment, the EURES site (figure 8) is available in 26 different languages.

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6   The Your First EURES Job scheme operates under the EURES axis of the EU Programme for Employment and Social Innovation.

▶ **Figure 8.** EURES homepage
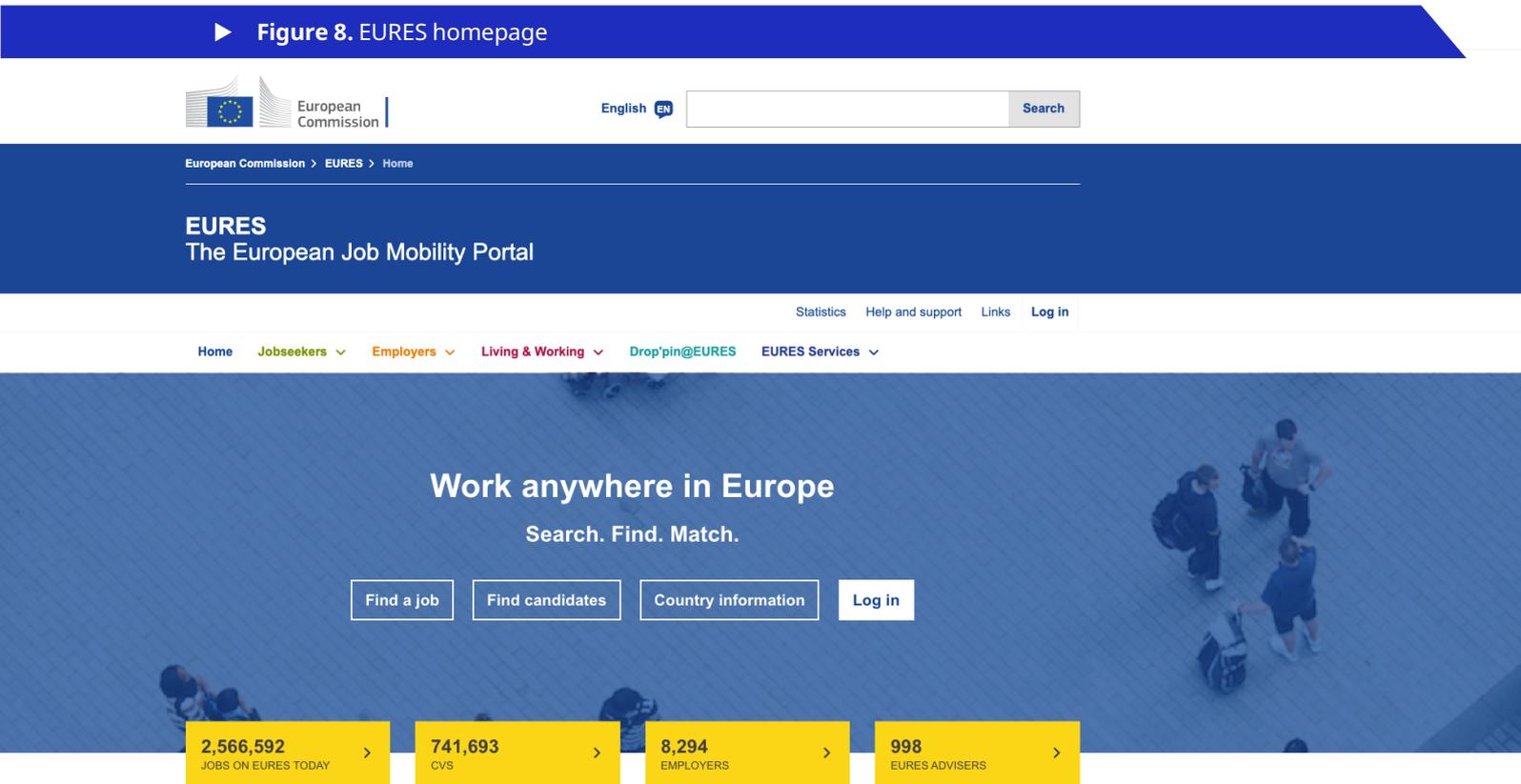
Source: EURES's official website

2.4.1. Key components of EURES

Job matching

EURES provides personalized job matching to employment seekers. In addition to an interactive job search engine that allows jobseekers to determine search profiles and obtain automatic emails detailing new matching job offers when they arrive, users can also use an automatic matching feature if they provide their CV. A standardized format for job vacancies and CVs ensures skills-based matching across all 26 languages.

Employers uploading vacant job positions to national databases benefit from close EURES–PES (public employment services) relations and interactions that enable national job listings to be listed on the EURES platform. This increases the visibility of job openings and company profiles and provides employers with a much larger pool of talent to recruit from. The EURES "flag function" makes it possible for employers seeking to hire to indicate whether they are particularly interested in hiring staff from a different EU or participating country. In addition, to prevent fraud, employers seeking to hire must enter their company profile data and await verification from EURES in order to be granted access to jobseeker CVs.

Training resources and CV editor

The EURES platform's "Youth Opportunities" section provides employers with an option to cater training courses and sessions to young individuals from participating States. A unique feature of EURES is the comprehensive CV builder, which helps those seeking employment to clearly structure their attributes and work experience, including their skill levels. This particular digital system also allows employers to gain insights into the skills of potential employees, thereby enabling them to compare different jobseekers.

Information about living and working in the EU

The platform enables jobseekers to select from a list of extra assistance options (such as. relocation assistance, life insurance, vision insurance and so forth) needed for moving to a new job location. A "living and working conditions" section on the EURES website allows jobseekers to select a country (or region or state) and gain access to information regarding recognition of diplomas, types of employment, salary, working time, (paid) leave, trade unions and how to address work disputes. Jobseekers can learn about labour market and living conditions and guidelines at the national and regional levels. The platform provides visitors with extensive information that sheds light on living and working conditions in these countries as well as contact details for help hotlines offering more personalized assistance.

2.4.2. Review of indicators

Transparency

One of EURES's central priorities is to facilitate institutional transparency in the recruitment, placement and job matching of European workers, acknowledging that:

Transparency of labour markets and adequate matching capabilities, including the matching of skills and qualifications with the needs of the labour market, are important preconditions for labour mobility within the Union. A better balance between labour supply and demand by improved matching of skills and jobs can be achieved through an efficient system at Union level for exchanging information on national, regional and sectoral labour supply and demand.

(EURES Regulation, [7] article 47).

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7   Regulation (EU) 2016/589 of the European Parliament and of the Council of 13 April 2016 on a European network of employment services (EURES), workers' access to mobility services and the further integration of labour markets, and amending Regulations (EU) No 492/2011 and (EU) No 1296/2013, Official Journal of the European Union, 2016 L107/1.

To facilitate greater transparency in the job matching process, EURES uses the "European Skills, Competences, Qualifications and Occupations classification system", which describes, identifies and classifies professional occupations, skills and qualifications relevant for the EU labour market, as well as education and training. The system also provides descriptions of 3,000 occupations and 13,500 skills linked to these occupations, translated into 26 languages. [8] This digital component of EURES achieves institutional transparency because it enables jobseekers and employers to benefit from a unified set of indicators pertaining to professional occupations, skills, qualifications, training and education. It also provides a coherent and accurate description of occupations and skills that can increase the success of job matching processes, as it can be used in drafting CVs and job offers.

Furthermore, the EURES website and its advisers also offer transparent institutional support systems for both jobseekers and employers in the European labour market. The website allows all parties to directly contact advisers from specific countries and regions, and to choose the preferred language of communication. The digital system also enables jobseekers to search and select a specific EURES adviser using the name search function on the website. This publicly available information not only creates a transparent, fair and competitive recruitment process, but also reinforces EURES's objective of establishing digital recruitment and job matching transparency for both workers and employers.

Lastly, EURES also verifies company data by employers who wish to hire workers and post vacancies on the platform in order to prevent the posting of fraudulent vacancies, criminal activity, unauthorized employment, as well as potential abuse of company profiles by third parties. The EURES platform has several measures in place for users to report grievances and other labour-related matters via a helpdesk that is reachable via webform, Skype or chat, as well as toll-free numbers in all participating countries. Such institutional mechanisms are not only essential in upholding institutional accountability, but also for building an ethical, fair and transparent recruitment culture in Europe.

Efficiency

The EURES Regulation (article 49) outlines the importance of efficiency with regard to improved job matching, job mobility, partnerships, and quality of the platform, which aims to "steer the development of the EURES network as a more result-oriented tool responsive to the needs of workers and employers according to the dynamics of labour markets". In addition, the EURES job search function enables the user to narrow down the list of suitable vacancies with several useful categories, such as job location, contract type (full-time or part-time), education level, position type (direct hire, internship, temporary), experience and social work. Regarding cross-border labour mobility, EURES has a "language skill" search and filter tool, which allows users to list language skills ranging from beginner to proficient. EURES also offers an "Extra benefits" toggle, which enables jobseekers to select from a list of various additional forms of assistance required for moving to a new job. This support can include, for example, relocation assistance and life insurance. These digital components help workers efficiently identify or obtain job matches, as complex data and information are simplified and organized for the purpose of creating transparent, efficient and fair recruitment and placement of workers.

Oversight

EURES's digital platform has a specific oversight functionality that enables multiple state institutions to facilitate transparent and efficient recruitment, placement and job matching. In particular, articles 13, 14 and 16 of the EURES Regulation define the roles and responsibilities of the EURES Network, the European Coordination Office, the National Coordination Offices, and the public employment services (PESs). The Regulation highlights the importance of tracking progress, exchanging ideas and information in order to improve oversight, and the functionality of the platform and its performance.

EURES is essentially a pan-European aggregate comprised of different national or Member State PESs pulling together data, best practices, labour market information, and employment and traineeship openings. Through the function of the online helpdesk, support is ensured

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8   European Skills/Competences, qualifications and occupations: https://ec.europa.eu/esco/portal/escopedia/ESCO_v1.

to end users, EURES advisers, jobseekers or employers, and regulatory authorities. The helpdesk can provide specific information on rules, regulations and information centres via the EURES platform.

One of the core functions of EURES is to disseminate job vacancies among jobseekers from all EURES-participating States that have been verified and posted on PES websites. This structuring assists these regulatory authorities by increasing the pool of potential candidates and by creating inter-agency transparency about job market indicators, such as bottleneck vacancies. The EURES platform depicts and disseminates labour-related information retrieved from a PES, and by doing so acts as a multiplier of EURES participating States' PES efforts. However, there is room for improving job placement measurements, and this is where the Performance Measurement System has a major role to play. The System offers an overview of the entire process at the national level, and it provides Member States as well as the European Coordination Office with information regarding the state of play of EURES in each country involved.

Article 26 of the EURES Regulation stipulates that EURES and its partners in participating States should facilitate access to information:

Upon the request of a worker or of an employer, the EURES Members and, where relevant, the EURES Partners shall refer requests for specific information on the rights relating to social security, active labour market measures, taxation, issues relating to work contracts, pension entitlement and health insurance to the national competent authorities and, if applicable, other appropriate bodies at national levels supporting workers exercising their rights in the framework of the freedom of movement, including those referred to in article 4 of Directive 2014/54/EU. [9]

Stakeholder expert interviews revealed that the platform benefits from the IT security measures put in place for any European Commission site hosted on ec.europa.eu. As an instrument of the European Commission, EURES services and activities de facto and de jure are based on the Treaty on the Functioning of the European Union in general, and specifically article 45 pertaining

to freedom of movement for workers. In their report assessing the efficiency of EURES and its impact on labour mobility, the European Court of Auditors (2018) analysed the usage of SOLVIT (Solutions to Problems with Your EU Rights), an informal problem-solving network of the European Commission and Member States of the EU, and other EU systems that enable citizens to report work-related grievances:

In 2016, 2,414 cases were dealt with by SOLVIT, relating to all aspects of the single market. One complaint category is on the free movement of workers, while other categories may also be indirectly related to free movement. These include the recognition of professional diplomas, social security or access to education for family members. In 2016, there were 34 cases related to the free movement of workers.

Since 2010, the Commission has launched 33 legal proceedings against Member States concerning the freedom of movement, and 21 related to social security issues, which indirectly impacts such rights. …

In addition to SOLVIT, some [EU] Member States have set up their own distinct systems for citizens to report and deal with cases of discrimination. For example, foreign workers in Luxembourg can contact the national labour inspectorate, which follows up on the complaint. In other Member States, such as Germany, workers may address information offices run by trade unions, which have specialized mediators who may take over the complaint and refer it to national authorities or contact employers directly for a conciliation

(European Court of Auditors 2018, 21).

Although the European Commission may take direct action against Member States, considering the freedom of movement and other discriminatory practices in the European Court of Justice, "responsibility for employment and social policies lies primarily with the Member States" (European Court of Auditors 2018, 13). Member States have their own respective procedures and their own regulatory authorities that deal with fraud, corruption, illegal labour and other issues.

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9   This article is on measures facilitating the exercise of rights conferred on workers in the context of freedom of movement for workers.
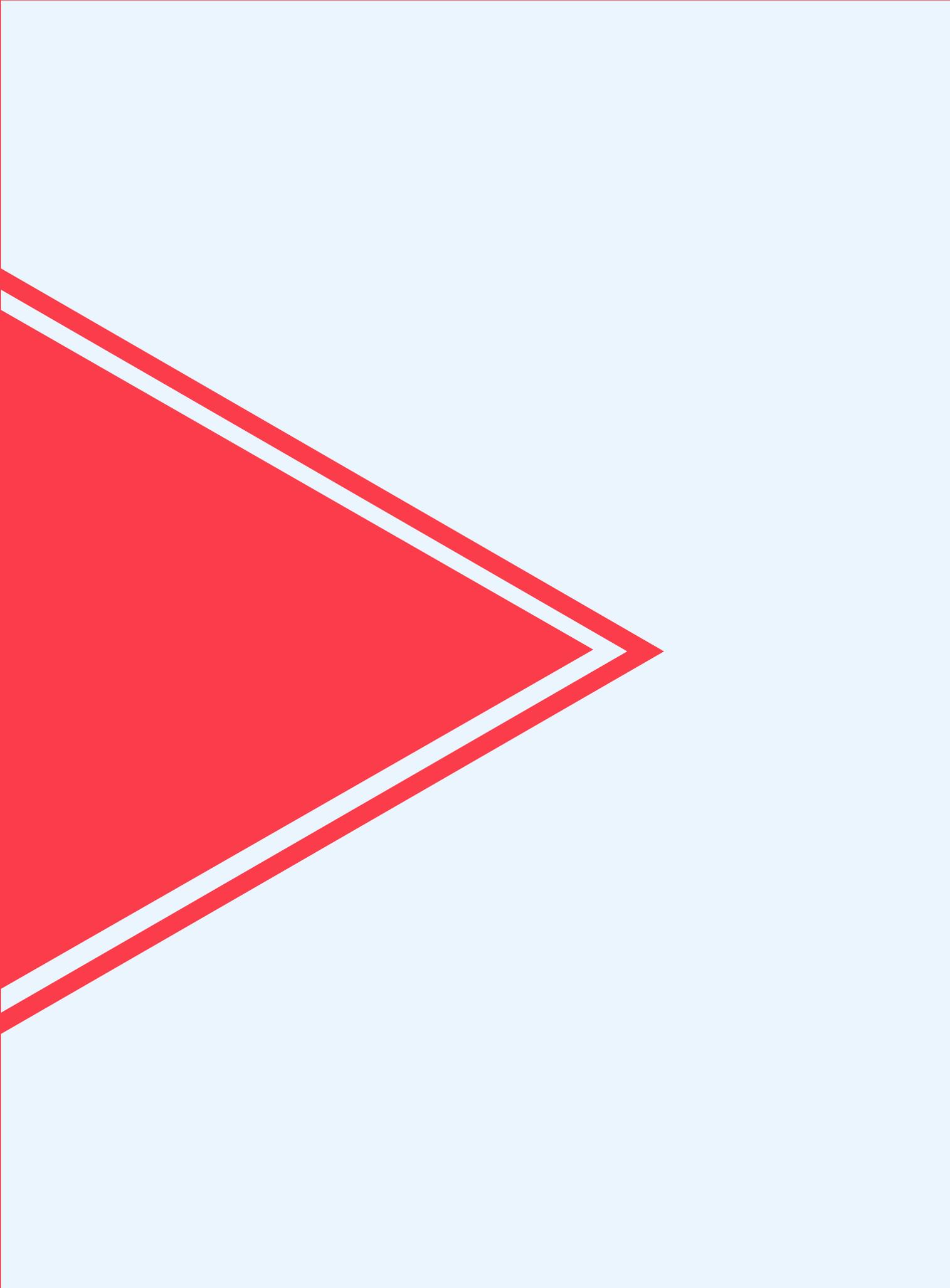
3

Future global trends and applications in digital tools and platforms

While the case studies presented in Section 2 give current examples of how technology is being integrated into state management of recruitment, there are other existing and emerging technologies that could be examined by States for future integration or adoption. In particular, this section aims to identify trends and opportunities for digital technologies that have the future possibility to streamline the migration recruitment process, and promote decent jobs and better working conditions for migrant workers, that can be applied by States or other public or private stakeholders. While these emerging technologies have not been reviewed in accordance with the indicators of this study, they have the institutional capability to advance fair and ethical recruitment, if properly and rigorously implemented by participating States in the long term.

▶ 3.1. Existing technology applications that can enhance state-facilitated platforms

3.1.1. Promoting transparency: Peer-to-peer sites

A rapidly growing area of technology is the usage of mobile applications that facilitate dialogue among migrant workers who can review and share their experiences with various labour recruiters. The following are existing peer-to-peer project sites, some of which are currently in their pilot phases:

▶ Contratados.org is principally focused on the Mexico–United States migration route. The site sources information from workers themselves, who rate employers and labour recruiters. Workers, for instance, can post Yelp-like reviews that are based on their personal recruitment and employment experiences (Solve n.d.). A project of Centro de los Derechos del Migrante, the site also provides blog posts with news, information about rights, and publicly available data from government sources about labour recruiters, work sites and industry-wide issues.

▶ Just Good Work is an application being piloted in the Kenya-to-Qatar labour migration corridor for the purpose of "find[ing] the most effective deployment technology to equip workers and companies with trustworthy information" (Just Good Work n.d.).

▶ Golden Dreams, established by the Bangkok-based NGO Issara Institute, is a native-language application platform through which Myanmar workers share information about their migratory experiences in the Myanmar–Thailand migration corridor.

▶ Migrant Recruitment Advisor, run by the International Trade Union Confederation, in coordination with its national affiliates, is currently available in Indonesia, Kenya, Malaysia, Nepal, the Philippines and Sri Lanka. The application's purpose is to enable migrant workers to rate their labour recruiters in accordance with set criteria. The platform also links workers to a complaint's mechanisms run by the NGO Migrant Forum in Asia. Information provided on the website also aims to raise awareness about relevant laws and their rights. Initially available in English, Indonesian, Nepali and Tagalog, it will be further developed in more languages.

3.1.2. Promoting oversight: Digital tools that collect and aggregate data

Various data sources exist that can effectively provide rich insights into the labour and recruitment practices of employers and PRAs. However, aggregating this vast supply of data from multiple disparate sources into simplified, actionable insights often poses multilevel challenges for all stakeholders. Though some product providers do aggregate open source data, including but not limited to, news media articles, NGO reports, public records, inspections and court filings, which provide critical analysis and perspectives into suppliers, production facilities or industries. One example is Diligence, an online, public-records search engine developed by LexisNexis that enables users to "screen individuals for potential government connections to mitigate financial crime, corruption, and other risks" and "identify potential conflicts of interest for prospective customers or business partners" (LexisNexis n.d.). This search engine tool can also explore across multiple legal databases to determine whether an agent has previously faced or is currently facing litigation for labour malpractices. These research tools have also increasingly incorporated publicly available, open source information from NGOs and advocacy organizations, which conduct in-depth human and labour rights compliance studies that offer additional critical understanding of specific industry-related practices. More importantly, multinational companies have also utilized these search engine tools to conduct background investigations on prospective contractors and suppliers in order to assess their human rights compliance records.

Other digital applications use messaging and survey systems to directly obtain information from migrant workers. For example, WeChat, Facebook Messenger, QuestionPro and SurveyMonkey have been utilized to communicate with migrant workers at multiple worksites. Mobile-enabled surveys are also cost-effective options, as they can be used to collect migrant worker perspectives in real time, with a low budget relative to traditional data collection methods. While digital technology can effectively facilitate the soliciting of feedback from migrant workers about their experiences, more rigorous efforts are needed to build on the feedback received by taking action and upholding national and international labour standards. While these "remote collection" techniques show a lot of promise, they also have inherent risks. For example, data collectors should be very clear and transparent about data privacy, usage and obtain informed consent from those surveyed, regardless of the methodology used. In addition, steps need to be taken in all data collection methodologies, whether remote or in person, to respect the privacy and security of those sharing information.

3.1.3. Promoting efficiency: Enabling direct hiring

The EURES platform has demonstrated success in connecting jobseekers directly to employers due to its additional facilitative functionality, which serves as a core purpose of the digital platform. Outside of the EU, several examples of digital recruitment platforms exist that specifically target low-skilled, skilled and aspiring jobseekers within their countries or regions. For example, India's BabaJob (www.babajob.com) primarily connects employers and jobseekers through a digital platform to "make jobs accessible to everyone and make hiring fast and easy" within India. While the website has largely focused on "skilled, aspiring workers" who can be connected to jobs within their city, they are also experimenting with connecting internal migrant workers with employers in various cities across the country. In fact, BabaJob's market outreach initially targeted low-skilled workers through social media, messenger applications, mobile phones and other information technology tools to raise workers' public awareness about the existence of its online digital tools. This strategic outreach has enabled BabaJob to create a large user base, which further incentivized employers to use the digital recruitment platform. BabaJob provides a promising digital platform that can be used by employers who have pledged to hire directly. By 2016, BabaJob raised over US$12 million in funding from social and other venture funds and the US Agency for International Development (USAID), which has given them the opportunity to register more than 5 million jobseekers. Due to its national appeal and value, BabaJob was acquired in 2017 by Quikr.

3.1.4. Promoting efficiency: Transparency of payment and recruitment fees

Nepal's F1soft is another illustrative example of how the combination of mobile technology and accessible storefront operations allows workers to have greater control over their personal lives. F1soft – Nepal's "leading FinTech company" – created eSewa, a mobile wallet that connects communities to Nepal's banking system. To facilitate their outreach to the "technology illiterate", mainly those living in rural populations, F1soft has established "eSewa Zones", which leverage an existing network of payment service providers in towns and villages throughout Nepal. Users already rely on these entities to pay bills, buy phone credits and transfer funds, among other services. More recently, eSewa Zones have run pilot projects to connect jobseekers with registered labour recruiters in Nepal. They also have started utilizing their existing large financial network to increase fee transparency and organize lower fees for remittances to Nepalese villages from family members working abroad (USAID 2017). These pilots appear to be increasing transparency in the fees charged to workers, and testing whether the need for labour brokers can be eliminated.

▶ 3.2. Emerging technology applications that can enhance state-supported platforms

3.2.1. Promoting oversight: Artificial intelligence and machine learning

One technology-enabled source of potential and challenge is machine learning (ML) and artificial intelligence (AI). These related technologies can be applied to understand and target responses to rights' violations that workers might experience in their workplaces. Government labour ministries and departments are often resource-constrained, which makes it difficult to oversee the thousands of employers operating in their jurisdictions. A common mechanism to verify supplier behaviour is audits, which generate vast amounts of data.

With ML, government regulators can efficiently process and analyse vast amounts of data faster than human beings can alone. For example, ML has the digital transformative capacity to process large quantities of audit data, along with other data sources, in order to effectively find current or emerging fraudulent patterns. While data forgery in audits may exist – and the erroneous information can then contaminate results and responses – AI systems can potentially be programmed to identify errors and access information from other sources to provide quick validation. In addition, ML can process news reports, court filings, public records, and any other materials that comprise the open source data footprint of a supplier and its business associates. As workers also leave data footprints, government ML systems can scan social media, chat forums, message boards or public comment websites for any references about employers to glean insights on working conditions (Goswami 2018).

While AI can be a positive tool to uncover labour and employment issues, any misuse of ML or AI can pose a spectrum of critical risks. For example, governments and other actors also have the capacity and power to utilize complex data analysis systems like ML and AI to monitor employees' social media data footprints, and compile "scores" that deem certain employees to be causes of concern. These systems, for instance, utilize facial recognition to effectively identify migrant workers from particular ethnicities, or in some cases, analyse workers' social media posts to identify trade union organizers or "troublemakers". Without adequate institutional and legal protections, complex data systems utilizing ML and AI may undermine and suppress the rights of workers in the long run.

To mitigate these long-term concerns, governments need to adopt and uphold stricter AI and ML accountability policies in order to protect the rights and welfare of migrant workers. As Data and Society states, "Governments should acknowledge their human rights obligations and incorporate a duty to protect fundamental rights in national AI policies, guidelines and possible regulations" (Latonero 2018, 2). Should governments use AI in labour migration into – or from – their countries, they should abide by guiding principles established by multilateral institutions. This should include ensuring access to adequate and effective remedies should workers' rights be violated by either state or non-state actors. Business for Social Responsibility additionally acknowledges:

[T]here are opportunities to integrate a broader range of human rights considerations such as non-discrimination, freedom of expression, and labour rights—into existing processes. These efforts should also draw upon learning from the practice of human rights due diligence in other settings, such as cross-functional collaboration, the integration of rights-holder perspectives, and a focus on vulnerable groups

(Allison-Hope and Hodge 2018, 5).

Business for Social Responsibility's advice for companies can also equally be applied to governments employing companies that utilize AI in the context of labour-related technology deployment – whether it be conducting due diligence or using other types of ML to manage

or regulate the labour sector. Lastly, the Centre for Data Innovation recommends the concept of "algorithmic accountability", which it defines as "the principle that an algorithmic system should employ a variety of controls to ensure the operator can verify it acts in accordance with its intentions, as well as identify and rectify harmful outcomes" (New and Castro 2018, 1).

3.2.2. Promoting efficiency and transparency: Blockchain technology

A key area of concern in the recruitment process is deceptive contract substitution practices employed by some labour recruiters. For instance, employment contracts that were shown to and signed by workers in their country of origin can be altered or forged, and promises made about wage rates, working conditions and housing conditions may be different from what the worker faces upon arrival in the country of destination.

To mitigate these labour violations and protect the sanctity of contracts through an enhanced chain of custody, some organizations are testing the applicability of blockchain technology to create immutable records of contract terms. Although data stored using blockchain technology may be altered, there is a digital record of that change, thus providing workers with some avenues of recourse, as well as potential evidence of fraud should legal avenues be available. One such pilot project is the Coca-Cola Company's experiment with "smart contracts" with the non-profit Blockchain Trust Accelerator (*Reuters* 2019). The multi-stakeholder partnership, which includes the US Department of State, is using the secure ledger provided by the technology to offer a method to validate worker contracts. By providing incontrovertible evidence and security in contracts, the technology aims to enable the Coca-Cola Company to audit and review how suppliers and labour recruiters are managing worker contracts.

Another aspect of testing and experimenting with blockchain is the technology's reliance on "private keys", which is a critical component of ensuring private data security on the system. A private key is "a randomly generated number which is analogous to a password" and is mathematically related to an individual user's blockchain address, which can be either stored on a secure hard drive or be printed on paper (Margabandu 2017). A private key is what connects a user securely to their blockchain, and thus requires a certain degree of literacy and understanding in order to have a full technical control. The company Diginex and NGO The Mekong Club are currently piloting the use of blockchain technology for fair recruitment in Thailand, by specifically testing migrant workers' interest in and capacity to manage private keys.

The eMin App (eMin Project, n.d.) is another blockchain digital technology example that allows an immutable record of an employment contract to be stored (along with selected data points) using a phone or computer. With the technology it is not possible to alter the record of an employment contract, and a unique identification number is needed to verify that a transaction has occurred. Third parties can also audit these digital transactions in order to verify their authenticity. Future iterations of blockchain application for fair recruitment might entail having an entire recruitment process digitized and available online. The technology would have to be integrated with other online systems that a government may have (for example, eMigrate in India or Musaned in Saudi Arabia) to effectively optimize the full developmental potential in the long run.

In summary, digital product providers like LexisNexis' Diligence have the strongest capacity to fully aggregate open source data. Some digital applications may deploy SMS or interactive voice response-based mobile tools in order to survey workers directly. AI can analyse workers social media data, along with other forms of data, to identify and verify problematic patterns in certain industries or production facilities. These data can then be made available to inform due diligence practices related to supplier conduct and recruitment practices; however, institutional protections need to be in place to ensure that AI-enabled monitoring does not directly or indirectly violate workers' rights. In addition, mobile phone-based applications hold the capacity to educate migrant workers on their rights, connect them to job opportunities, and enable them to learn about labour recruiters and their prevailing market practices. Applications like Golden Dreams and Just Good Work often place the information directly in workers' hands, allowing them to access relevant data in order to make fully informed decisions. Along with websites like Contrados.org, they

employ a "peer-to-peer" model wherein workers inform each other of their experiences with certain PRAs and employers. In addition, blockchain technology has the potential to mitigate fraudulent and mutable contracts, and the use of electronic documentation is essential not only for efficiency but also in maintaining full transparency and accountability for all the parties involved in the contract.

## 3.2.3. Promoting efficiency: Streamlined services

As noted in the GFMD 2020 Thematic Note on "Leveraging Technology to Empower Migrants", given that migration often involves a series of bureaucratic steps, technology (including AI and ML) can also be used to promote efficiency of migration processes by speeding up standardized and repetitive tasks (GFMD 2020b). [10] However, use of targeted technology can go beyond mere expedition of processes and also be used to tackle the issue of corruption in recruitment.

In Bangladesh, the Committee on the Rights of Migrant Workers has started to promote the value and importance of digital technology in streamlining the migrant recruitment process to eliminate any potential forms of corruptive practices. Recently, the Bangladesh Government found that at least 27 different steps are required in order for a prospective migrant worker to receive an official authorization to migrate. This complex web of bureaucracy not only creates opportunities for corruption, but also has the propensity to generate illegal fees and institutional inefficiency. To combat this institutional inefficiency, the Bangladesh Government partnered with other migration stakeholders to simplify the process by using a smart technology-enabled system that is complemented by physical locations and service centres that workers already trust, specifically in rural Bangladeshi communities. Given the long migratory distances required for rural Bangladeshis to access basic government services, the Bangladesh Government established a network of Union Digital Centres (UDCs) that "decentralize the

delivery of public services and take them to the doorsteps of millions of underserved citizens" (Rahman 2017). With support from the United Nations Development Programme and USAID, there are 4,500 UDCs throughout the country servicing rural communities. The centres mainly provide information to jobseekers and aspiring migrant workers, and offer training for workers to upgrade their skills. The UDCs have also been used to formalize the migration process, thereby creating fee transparency. It is estimated that the average cost of migration for a Bangladeshi migrant is between US$2,600 and US$3,200 – equivalent to roughly three years' total combined income – much of which is illegally collected by unscrupulous PRAs and recruitment subagents. Through utilizing the formal channels established through the UDCs, however, costs to migrants are reduced by 80 per cent compared to informal channels, thus reducing both migration costs and institutional inefficiency in the deployment process (Shadat and Rahman 2016).

As technological access among some low-skilled workers becomes a key barrier, some governments have increasingly committed to investing in various policy strategies that promote and facilitate wider connectivity. Key examples include the utilizing of mobile phones and mobile applications, through which users have direct access to data. Building and staffing in-person, physical locations in small towns and rural areas, such as the UDCs in Bangladesh and eSewa Zones in Nepal, have also become important government and private sector efforts to facilitate stronger institutional connectivity through increasing accessibility to information streams and resources. To a large extent, governments may benefit from better exploring contemporary innovative technological approaches from the private sector, particularly in developing ways to make digital technology more accessible and user-friendly to individuals who live in remote communities. The commitment of governments can largely contribute to the success and proliferation of mobile banking applications, as well as enable better access to jobs through job boards and direct recruitment, thus positively impacting workers' access to employment opportunities in the long run.

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10 Such tasks include facilitating automated identity and document checking and validation as well as visa and permit applications, issuances and extensions; worker recruitment, interviews, selection, induction and ongoing training; ticketing, check-in, security clearance and boarding for air and international travel; and remittances and transboundary financial services (GFMD 2020b, 3).
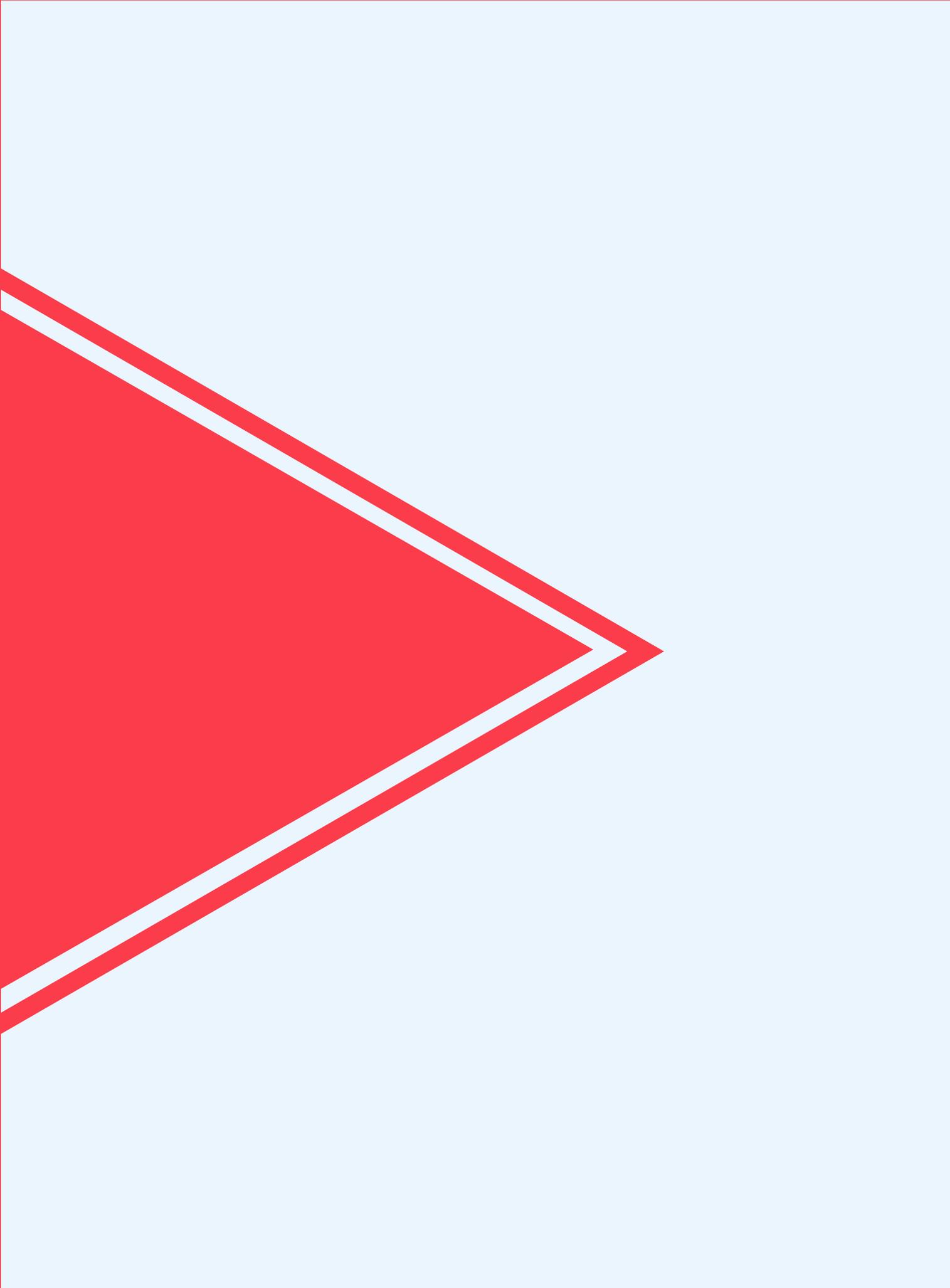
4

Conclusions and recommendations

States play a critical role in the successful adoption and implementation of digital technology that facilitates fair, transparent and ethical recruitment and placement of migrant workers. The review of the EPS, Musaned, eMigrate and EURES in section 2 indicated that diverse digital technology applications and platforms can play a role in enabling and reinforcing fair and ethical recruitment processes. However, the study also suggests that digital technologies are not a panacea, and they can only be effective when rigorously complemented by strong legal and policy provisions on-the-ground that fully uphold labour rights and by proactive follow-up mechanisms by States, employers and other relevant migration stakeholders.

After reviewing the four state-facilitated digital technology platforms featured in this study, the following recommendations can be advanced:

▶ **Invest:** The importance of direct state funding cannot be stressed enough. Governments should continue to invest in developing digital applications that aim to promote labour rights. The investment criteria should not be limited to the development and deployment of new technologies. Rather, these should be measured by the outcomes for the intended beneficiaries. To use the issue of due diligence as an example – artificial intelligence (AI) is an exciting technology that can be optimized to help pinpoint exactly which labour recruiters are falsifying contracts or overcharging workers, but that insight is wasted if these recruiters are not held accountable.

▶ **Complement on-the-ground efforts with technology:** Digital applications are critical tools that can be created and supported by government assistance. They should be part of an overall effort that is heavily reliant on "non-tech" means such as: human relationships, political influence and the development of shared goals among multiple like-minded stakeholders who are committed to creating a more equitable environment for workers.

▶ **Promote direct hiring:** Governments of countries of origin can also invest in technology that makes jobs – including jobs that require migration – more accessible to their nationals. This can be as simple as supporting websites that connect jobseekers with employers (EURES in the EU is a prime example of such government-backed or operated websites). Typically, such job sites focus on high-skilled workers, but it would be useful to tailor platforms for lower-skilled workers with limited opportunities as well, as in the case of BabaJob. Private job sites exist to make a profit, and thus often do not include low-skilled or low-paid jobs. Governments can fill this gap by sponsoring job boards specifically targeting low-skilled or low-wage work.

▶ **Deploy efforts to develop more accessible digital platforms:** When utilized and implemented properly, digital technologies and platforms can improve compliance with labour law and regulations. However, the usage rates among workers and employers will remain limited if governments do not make them accessible or do not promote them, particularly to migrant workers and prospective migrant workers. Accessibility can be improved by making platforms available in workers' native languages, through on-the ground outreach campaigns, by providing "digital literacy" training to migrant workers and by ensuring workers have the right to keep their mobile phones.

▶ **Scale:** In all cases, developing and deploying a digital technology or platform involves significant investments in financial and human resources. Obtaining user buy-in and ensuring that the tool helps to uphold labour standards require multiple stakeholders, engaged users and constant iteration. Governments should continue to invest in those areas where the technology has proven to be beneficial. For example, the Republic of Korea's EPS is a very effective system that would benefit from additional resources so that its potential reach can be broadened to other industries, corridors and user groups. Similarly, India's eMigrate has proven useful to its user base, but that needs to be increased. As outlined in section 3 of this report, there are additional emerging technologies that can alleviate concerns in the labour migration space, and investment in that technology is advantageous, but such investment should not come at the expense of reducing support for existing platforms that are already working well.

Governments can also facilitate technical assistance and support with other countries to ensure close institutional and bilateral coordination on their digital technologies and platforms, and to be collectively guided by international labour standards. [11] The existing and emerging digital platforms clearly demonstrate that collaboration between governments of countries of origin and destination is vital in collectively ensuring a positive migration experience that upholds national and international labour laws, and respects migrant workers' rights. For example, the Republic of Korea has signed MoUs with 16 countries of origin, providing technical assistance on how to best utilize the digital platform to facilitate cooperation and coordination through the EPS. It is imperative that both countries of origin and destination base bilateral MoUs on international labour standards, in order to clearly outline expectations related to how all parties will coordinate the platform and will guarantee labour rights, worker and employer expectations, and worker and employer obligations. In the case of Saudi Arabia's Musaned, for example, the platform is already operating in ten countries of origin, and the system was deployed in these countries after extensive training sessions for both the government and PRAs. The Musaned platform is being used regularly by ten government entities from countries of origin in addition to more than 2,600 authorized PRAs.

Finally, digital technology is a vital tool that can help facilitate good practices and help improve stakeholder experiences; however, it is certainly not a replacement for the political will, resources and oversight required to drive change. The platforms reviewed in this report all benefit from the strong policy frameworks, accountability structures and budgets that are necessary to meet the goals outlined.

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11 Including the ILO Private Employment Agencies Convention, 1997 (No. 181), and the non-binding General Principles and Operational Guidelines for Fair Recruitment and Definition of Recruitment Fees and Related Costs (2019).

▶ Bibliography

– Abdi, S.N.M . 2017. "UAE Objects to India's eMigrate Scheme Citing Sovereignty Issues", in *Al Arabiya English*, 28 May.

– Abu Dhabi Dialogue. 2019. "The Use of Technology in Managing the Recruitment and Deployment of Workers", presentation to the Abu Dhabi Dialogue Senior Officials' Meeting, Dubai, 30 April.

– Allison-Hope, Dunstan, and Mark Hodge. 2018. *Artificial Intelligence: A Rights-based Blueprint for Business – Paper 3: Implementing Human Rights Due Diligence*, Business for Social Responsibility Working Paper.

– Amnesty International. 2014. *Bitter Harvest: Exploitation and Forced Labour of Migrant Agricultural Workers in South Korea.*

– Chaloff, Jonathan. 2019. "The Republic of Korea's Temporary Foreign Worker Program: Innovative Policy Elements." In *Building Partnerships for Effectively Managing Labor Migration: Lessons from Asian Countries*. 23–69. Bangkok: ADB Institute, OECD and ILO.

– Chavez-Dreyfuss, Gertrude. 2018. "Coca-Cola, U.S. State Dept to Use Blockchain to Combat Forced Labor." *Reuters*, 16 March.

– Cho, Yoonyoung, Anastasiya Denisova, Soonhwa Yi, and Upasana Khadka. 2018. *Bilateral Arrangement of Temporary Labour Migration: Lessons from Korea's Employment Permit System*. World Bank.

– eMin Project. n.d. "eMin", available at: https://www.eminproject.com.

– European Commission. 2018. *Single Market Scorecard – Performance Per Governance Tool: EURES – Reporting period: 01/2017–12/2017.*

– European Commission, Directorate-General for Employment, Social Affairs and Inclusion, Unit D1: Free Movement of Workers. 2017. *Your First EURES Job: Targeted Mobility Scheme.*

– European Court of Auditors. 2018. *Free Movement of Workers – The Fundamental Freedom Ensured but Better Targeting of EU Funds Would Aid Worker Mobility*, Special Report No. 6.

– European Youth Portal. n.d. "#YourCareerMove", available at: https://europa.eu/youth/de/news/57/51553_en . Accessed 8 Mar. 2019.

– Farbenblum, Bassina, Laurie Berg, and Angela Kintominas. 2018. *Transformative Technology for Migrant Workers: Opportunities, Challenges, and Risks*. Open Society Foundations.

– GFMD (Global Forum on Migration and Development). 2020a. "Report on the GFMD Regional Consultative Process on the theme of 'Leveraging Technology to Empower Migrants' – Bali Process and Abu Dhabi Dialogue".

– ———. 2020b. "Thematic Note on Theme 3: Leveraging Technology to Empower Migrants".

– Goswami, Samir. 2018. Testimony before the US House of Representatives' Tom Lantos Human Rights Commission, 22 May.

– GSMA (Global System for Mobile Communications Association). *Start-ups and Mobile in Emerging Markets. Insights from the GSMA Ecosystem Accelerator.* Issue No. 1.

– Hahn, Chin Hee, and Yong Seok Choi. 2006. "The Effects of Temporary Foreign Worker Program in Korea: Overview and Empirical Assessment".

– ILO (International Labour Organization). 2018. *Global Estimates on International Migrant Workers: Results and Methodology*, 2nd ed.

– ———. 2019a. *General Principles and Operational Guidelines for Fair Recruitment and Definition of Recruitment Fees and Related Costs.*

– ———. 2019b. Work for a Brighter Future – Global Commission on the Future of Work.

– ———. 2020. "Ensuring Fair Recruitment During the COVID-19 Pandemic", ILO Brief, June.

– Jeon, Y.I., and M.Y. Lee. 2017. *The Evaluation of the Point-based System for the Recruitment of Migrant Workers in Korea* (Korea Employment Welfare Pension Institute).

– Latenero, Mark. 2018. *Governing Artificial Intelligence: Upholding Human Rights & Dignity.* Data and Society.

– Lee, Kyu-yong. 2010. "The Study on Korea's Policy on Foreign Workers". IOM Migration Research & Training Centre.

– ———. 2014. "10th Anniversary of the Employment Permit System: Achievement and Future Tasks", paper presented at the Seminar on the 10th Anniversary of the Employment Permit System, Seoul.

– LexisNexis. undated. "Lexis Diligence", available at: http://www.lexisnexis.com/trial/uslm172924.asp.

– Ludden, V., and A. Jeyarajah . 2018. "European Labour Authority and Support for Labour Mobility (EURES)", briefing requested by EMPL Committee.

– Margabandu, Karthik. 2017. "Public Keys, Private Keys and Bitcoin Address." *Medium*, 31 July, available at: https://medium.com/@karthikmargabandu7/public-keys-privatekeys-and-bitcoin-address-bf26125addf7.

– New, Joshua, and Daniel Castro. 2018. "How Policymakers Can foster algorithmic accountability", 21 May. Center for Data Innovation.

– Park, Young-bum. 2017. "South Korea Carefully Tests the Waters on Immigration, with a Focus on Temporary Workers", *Migration Information Source* blog, 1 Mar.

– Rahman, Bappy. 2017. "Union Digital Centre: Reaching E-Services to Rural Citizens' Doorsteps." *Daily Sun*, 21 November.

– Seol, Dong-hoon, and Jae-ho Ko. 2015. *Foreign Migrant Workers Survey in Korea 2015*. Human Resources Development Service of Korea.

– Shadat, Wasel Bin, and Kazi Mahmudur Rahman. 2016. *Formalising Migration through Union Digital Centre (UDC) and Skill Upgradation: Bangladesh Priorities*. Copenhagen Consensus Center.

– Solve. n.d. "Contratados.org", available at: https://solve.mit.edu/challenges/work-of-the-future/solutions/5325.

– Yoo, Kil-sang, and Kyu-yong Lee. 2002. *The Employment Status of Migrant Workers in Korea and Policy Suggestions*. Korean Labour Institute.

▶ Annex: Methodology

This study utilized diverse methodologies in order to fully capture the unique features of state-facilitated technology platforms in the Republic of Korea, Saudi Arabia, India and Europe. The following section briefly summarizes these methodologies.

Employment Permit System

To understand the EPS and collect relevant data for analysis, various methodological approaches were used to reach the key conclusions.

First, desk research was carried out to review relevant local and international publications and available reports on the EPS. This included news articles, press releases, relevant laws, evaluation reports, third-party assessments, NGO reports and other relevant information. Some materials were provided by the public institutions that administer the EPS themselves, while others were found through online keyword searches.

Second, surveys and focus group discussions were conducted in order to illustrate migration experiences and investigate use cases and perceptions of the EPS platforms. Focus group discussion participants formed for discussions were selected from the pool of survey participants, and included all except those who did not wish to join for various reasons. In this way, participants were able to clarify their survey answers and share in more detail their experiences regarding the use of the EPS platforms. The survey participants and focus group discussions remained anonymous, although demographic information such as gender, nationality, age and education were collected.

A total of 25 complete surveys were collected during the research period of December 2018 to January 2019. The majority of the participants were male (92 per cent) and between the ages of 30 and 39 years (48 per cent). Four different countries, Nepal, The Philippines, Bangladesh and Indonesia, were represented. Twenty-two participants were first time migrants, while three had previously worked in other countries, such as the United Arab Emirates and Qatar. The respondents rated their Korean language proficiency as intermediate (48 per cent) or basic (52 per cent). For the focus group discussions, migrant workers were organized into three groups based on nationality (Nepal, Bangladesh and the Philippines) in order to better facilitate the discussions. An interpreter, who was also a migrant worker, was present for each group. The survey and focus group discussions were carried out in a migrant workers' centre located in Incheon city and targeted mainly those who visited the centre.

Thirdly, key stakeholder interviews were conducted in order to gain more extensive data, knowledge and deeper insights on the EPS. A total of nine persons from the following institutions participated in this study: Human Resources Development Service of Korea (HRD Korea), Korea Employment Information Service, Korea Federation of Small- and Medium-Sized Enterprises, Korea Labour Institute, Korean Confederation of Trade Unions, Migrants' Trade Union and the central region job centre that oversees part of Incheon city. The interviews were semi-structured and conducted either via phone or through email exchanges.

EURES

Interviews were organized for both users of the platform as well as EURES staff. Four institutional surveys were completed, but unfortunately no EURES user questionnaires were implemented, and only publicly available information was used for the study.

An extensive desktop research of the EURES Platform, its social media presence, including informative YouTube videos (EURES Europe YouTube channel) and other campaigns such as "#YourCareerMove" (European Youth Portal n.d.) by the European Coordination Office. In addition, questionnaires disseminated online to EURES Staff and EURES users provided an in-depth look into the usability, functionality and unique features of the EURES platform. Furthermore, additional insight were provided by several briefings and reports revolving around EURES, including a briefing on EURES requested by the European Parliament's Committee on Employment and Social Affairs (Ludden and Jeyarajah 2018); the 2018 report *Single Market Scorecard – Performance Per Governance Tool: EURES* (European Commission 2018); the *Free Movement of Workers* special report (European Court of Auditors 2018); the *Practitioner's Guide to EURES* (EURES 2017); and *Your First EURES Job* (European Commission 2017).

Building on this desktop research, the consultant conducted a SWOT-analysis vis-à-vis chosen indicators. Additionally, two questionnaires were created aimed at obtaining first-hand information revolving around the operation of EURES.

The first questionnaire was created on the platform "Qualtrics". The goal was to obtain enough results in order to have quantifiable feedback that could become part of the EURES review. Unfortunately, only two partially filled out questionnaires were received. The second questionnaire was distributed amongst EURES staff, and completed questionnaires were received from France, Italy, the Netherlands and Spain.

eMigrate

To achieve the objectives of the study, a qualitative research methodology using secondary as well as primary data sources was utilized in order to examine the key dimensions and effectiveness of India's eMigrate system. Relevant secondary sources included academic articles, press releases and NGO reports. Given the lack of secondary sources, the approach focused on primary sources, such as interviews, the eMigrate website, and office orders and official operating guidance by government officials.

Primary sources of data were mainly drawn from field interviews conducted with 18 resource persons, including government officials (informal interactions), IT experts, workers, labour recruiters, academics and research scholars. In-person interviews were conducted with government officials, IT experts and some workers. Telephone interviews were conducted with workers, labour recruiters, research scholars and academics. Interviews were based on questionnaires designed exclusively for each category. The questions were pre-determined, but open ended, with follow-up questions emerging from the discussion.

MUSANED

To critically examine Saudi Arabia's MUSANED system, the research team conducted both stakeholder interviews and primary document analysis to identify the key stakeholders and MUSANED's overall functionality system. Using the study indicators, a research interview questionnaire was developed and used to conduct interviews with the MUSANED staff, including the general manager and a public relations office. In order to verify the information reported by the MoHRSD concerning employers, non-structured interviews were conduced with four employers who used the MUSANED system. These stakeholder field interviews provided more insights about the impact of MUSANED on employers in general with respect to the set of indicators.

Desk research was also conducting, including a review of MoHRSD documents and bilateral agreements, as well as independent media and policy studies. This mapping process enabled the team to better understand the interactions among the system's stakeholders in relation to MUSANED.