

More than numbers

How migration data can deliver real-life benefits for migrants and governments



IOM's Global Migration
Data Analysis Centre
GMDAC



International Organization for Migration (IOM)
The UN Migration Agency

McKinsey & Company
MCKINSEY CENTER FOR GOVERNMENT



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Contents

00 Foreword	10
01 Acknowledgements	12
02 Executive summary	14
03 Towards an investment case for better migration data	18
04 The value of migration data – a framework	23
05 Investing in data pays off for migrants and countries alike	30
06 Designing country migration data strategies to drive real-life benefits	58
07 Advancing the migration data agenda on global, regional and national levels	64
08 Appendix	72

List of abbreviations

AVRR	Assisted Voluntary Return and Reintegration
CDR	Call detail records
DTM	Displacement Tracking Matrix
EU	European Union
GCM	Global Compact for Migration
GDP	Gross Domestic Product
GMDAC	Global Migration Data Analysis Centre
IOM	International Organization for Migration
M&E	Monitoring and Evaluation
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
REP	Returning Expert Programme
SDG	Sustainable Development Goal
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund

00

Foreword

We are at a crucial moment. We are witnessing the movement of humans across borders on a scale never seen before. Migration has become the megatrend of our time and it is not only inevitable, it is necessary. Migrants represent approximately 3 per cent of the world's population, but produce more than 9 per cent of global GDP, some USD 3 trillion more than if they had stayed home. Migrants fill jobs, bring skills and help economies flourish. Large benefits accrue to migrants as well as to their countries of origin and destination when migration is managed well. Mismanaged migration, on the other hand, puts migrants at risk and paves the way for growing anti-immigrant sentiment around the world.

Well-managed migration builds on reliable data and evidence. Too often, data is seen as the abstract business of technical experts operating in backrooms. Yet data is "more than numbers" as it is essential to produce real-life results. It is needed to identify challenges, design responses, monitor implementation and evaluate the effects of migration policies. Data thereby enables policymakers to manage for better migration outcomes, for example, to protect migrants in vulnerable situations, fill labour market shortages in a targeted way, manage asylum procedures efficiently or increase net remittance flows (to name only a few).

While there is clear consensus among policy experts and academics alike that better data is needed, too little has been achieved in recent decades. The availability of relevant, high-quality data on international migration which can inform governance remains limited.

The report "More than numbers" urges governments to put data at the centre of the debate on migration using a value-driven approach. Produced by a joint team of IOM's Global Migration Data Analysis Centre (GMDAC) and the global management consultancy McKinsey & Company, this report illustrates how a strategic focus on and investment in quality data can maximize the value of migration and address its current challenges. It describes the value at stake across various dimensions of migration and provides guidance on where investments in data should be directed to deliver the most impactful outcomes.

The time to invest in better migration data is now. In 2016, countries agreed to start negotiations leading towards the adoption of a global compact for safe, orderly and regular migration in 2018. Just one year before, migration was included in the 2030 Agenda for Sustainable Development. As countries have joined together on a path toward increased cooperation and action on migration, investment in data will be crucial for its success.



William Lacy Swing,
Director General,
International Organization for Migration

01

Acknowledgements

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02

Executive summary

Migration is a complex global challenge. Around 258 million people are currently estimated to be residing outside their country of birth – a number that has almost tripled in the past 50 years. This has policy implications across a myriad of dimensions ranging from border management to labour market participation and integration.

Decision makers absolutely need one thing to devise appropriate policies: reliable information. Relevant, high-quality data¹ is critical for designing, implementing and evaluating policies that can generate substantial economic, social and humanitarian benefits for countries and migrants alike.

Despite widespread consensus on the importance of data to manage migration effectively, the current availability of relevant and reliable data is still very limited. Even when data is available, it is often not used to its full potential (including new data which is being produced in abundance from digital devices). Unfortunately, the current debate focuses far too much on how to get more and better data – a technical debate for experts in the engine room of politics. This report aims to shift this debate from theory into practice. Decision makers need to be convinced of the value that migration data can deliver.

This report is intended to support decision makers in capturing concrete economic, social and humanitarian benefits in line with targets they choose to prioritize – by leveraging the data that matters.

IN BRIEF

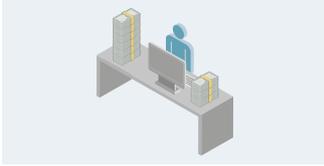
There have been many calls to improve data on international migration in recent years, **however availability of relevant, high-quality data on migration remains limited, and progress in addressing this challenge has been slow.**

To date, **the missing link has been a clear value case that convinces policymakers to invest in collecting, sharing and analyzing migration data.** They need a clear view of the tangible outcomes they can expect and which risks they can address through their investments in data.

In fact, **investing in data pays off for migrants and countries alike. Effective usage of data yields value along all seven core dimensions of migration** identified in this report (see chapter 04 for a comprehensive framework and chapter 05 for deep-dives on each dimension).

¹ For better readability “data” will be used as a singular noun throughout this report

7 examples of how migration data delivers real-life benefitsⁱⁱ

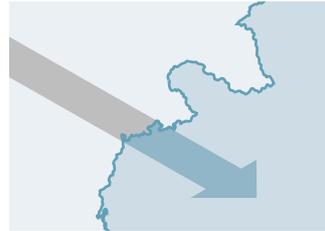


Emigration – example

Leveraging data on recruitment costs and working conditions can help to **reduce recruitment costs by USD 3–6 billion for labour migrants** in four Arab Gulf states alone.ⁱⁱⁱ

Immigration – example

Using data to identify and incentivize migrant groups with relevant skill sets from abroad can help **close domestic labour market gaps**. Between 2005 and 2015, Australia **increased the number of job vacancies filled by employer-sponsored migrants with relevant skills by approximately 14 per cent each year**.



Integration and contribution – example

Targeted initiatives to increase language proficiency can **enable a 15–20 percentage point increase in immigrants' employment rates**.

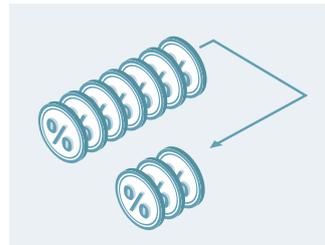
Using data to match migrants' qualifications with adequate jobs could **increase the income of highly skilled migrants by EUR 5–7 billion** in the EU alone.

Data-driven initiatives to **promote naturalization for eligible migrants could enable income gains of EUR 0.7–1.6 billion** in the EU.

Development – example

Creating transparency on remittances costs could **increase the money sent back to low- and middle-income countries by USD 15–20 billion**.

Data-driven programmes can help **promote the targeted return of 20 per cent of high-skilled professionals working abroad**.

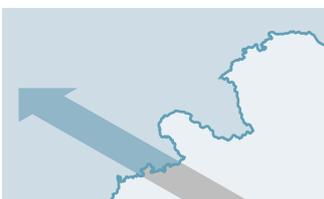


Journey – example

Data-driven interventions can **double the number of human trafficking cases identified**. This could enable support to around 150,000 victims.

Arrival – example

Data can **enable a significant reduction in the number of duplicate registrations** using centralized databases and modern technologies (e.g. top-in-class fingerprint and facial recognition systems have an accuracy of over 99 percent).



Return and reintegration – example

Using data to tailor assisted voluntary return programs to migrants' needs could **increase the share of voluntary over forced returns**. A 10-percentage points increase would have saved EU governments up to EUR 350 million for the years 2008–16.

Each country needs to identify and prioritize the value dimensions most relevant to them depending on their respective migration situation. Priorities across the various value dimensions will differ, e.g. depending on the overall income level (low, middle or high), whether a respective country tends to send and/or receive migrants, and whether its attention is focused on regular and/or irregular migration.

To maximize migration's potential and mitigate its risks, **each country needs to develop a tailored migration data strategy focusing on the specific objectives of that country.** This report offers tools and guidance to help countries develop compelling cases for investment and achieve support from relevant stakeholders (e.g. representatives of financing entities).

Going forward, **the development of value-driven migration data strategies can be pursued on global, regional and national levels:**

1. A **global support platform ("migration value navigator")** can help national and international stakeholders identify, compare and prioritize the potential value of improved migration data across countries, regions and different dimensions of migration.
2. **Regional migration data observatories** can create exchanges between various sources of data across national borders and increase both transparency of regional migration trends and the ability to support evidence-based policy decisions within a given region. Most migration occurs within regions and therefore countries need to cooperate at the regional level to manage migration effectively.
3. Individual countries need **capacity building support** to take a value-driven perspective on migration data and to enable them to develop **focused and outcome oriented national migration data strategies.**

Two global developments present countries with a historic opportunity to advance the migration data agenda and make crucial investments in data. First, countries have joined together and started negotiations leading towards the adoption of a global compact for safe, orderly and regular migration to improve cooperation and migration governance. Second, countries have also committed to several migration-relevant Sustainable Development Goals (SDG) which require many countries to invest in better data for SDG follow-up and review. Both processes provide governments with renewed momentum to invest in data at the local, national, regional and global level. This report aims to support both the global community and individual countries in their endeavours.

II Detailed examples and calculations provided in main section of report and appendix.

III Recruitment costs are prevalent worldwide. The estimate is limited to labour migrants in four Arab Gulf states (Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates) due to limited availability of data on recruitment cost globally.

03

Towards an investment case
for better migration data

Policy experts and academics alike agree that data is key to improving migration governance. The interest in migration data is not new: as early as 1891, experts at the International Statistical Institute in Vienna recommended the standardization and dissemination of data on settled migrants in each country.¹ More recently, calls for improved migration data have regained momentum:

The 2030 Agenda for Sustainable Development makes explicit reference to migration for the first time. It also includes specific calls for improved data collection and capacity and for the disaggregation of this data by indicators including ethnicity and migratory status.²

The 2016 **New York Declaration for Refugees and Migrants** seeks to enhance international cooperation to improve the collection of accurate, disaggregated migration data through capacity-building, financial support and technical assistance.³

Thematic sessions leading up to a **global compact for migration (GCM)** highlight the need to make better use of existing data, harmonize data gathering and sharing (including disaggregated data), and strengthen relevant capacities at the national level.⁴

Modest progress has been made thus far, including, for example, the development of the Global Migration Database,⁵ which has enabled disaggregated estimates of migrant numbers for 232 countries worldwide.⁵ The Global Migration Data Portal has made the vast amount of often scattered data from different fields of migration accessible in a one-stop shop.⁶ Still, the current availability of relevant, high-quality data on migration is limited,⁷ and important challenges persist on a national and international level:

Lack of data: Many countries do not produce or publish migration-related data. For example, only 45 of the 193 UN Member States report statistics on migration flows,⁶ and even in censuses, only 50 per cent of countries ask for the year of migrant arrival.⁷ As shown in Exhibit 1, little data is collected on various key aspects of migration.

I Developed by the UN Population Division in collaboration with the UN Statistics Division, the World Bank and the University of Sussex.

II See www.migrationdataportal.org.

III For example, there is no ongoing/regular detailed survey of global migration policies.

Fragmentation: Data can be scattered across various locations and sources, including countries of origin, transit and destination. Even in-country, there may often be a lack of consolidation across different ministries or across public, private and non-governmental institutions.

Non-standard formats: Limited consistency in definitions, sources and measurements restricts the ability to draw comparative insights (on a global scale or even within countries). For example, of the 45 countries that report migration-flow data, only 24 use the same definition of what constitutes a migrant.⁸

Low data quality and relevance: Even where data is available, issues with timeliness, completeness and the level of disaggregation can compromise the robustness of insights that can be drawn. For example, the most recent census data for 17 per cent of countries in Africa dates back more than 11 years.⁹ Poor data quality limits the data's relevance for decision-making. For example, outdated data will not be useful to react on new developments and current challenges. Incomplete or unspecific data can lead to misinterpretations and thereby lead to misrepresentation of facts and unsuitable interventions.

While there is broad consensus on the importance of data, current efforts to improve migration data will not be translated into action unless policymakers are presented with a compelling value case. Put simply, this means clearly articulating the expected benefits of devoting increased resources to improving the collection, sharing and analysis of data on migration.

In order to shed greater clarity on how different countries should prioritize strategic investments in migration data, three questions need to be addressed:

What is the value at stake (economic, humanitarian, social, political) that can result from specific investments in data?

How should investments be prioritized to deliver the most impactful outcomes for each country or region and across relevant stakeholder groups?

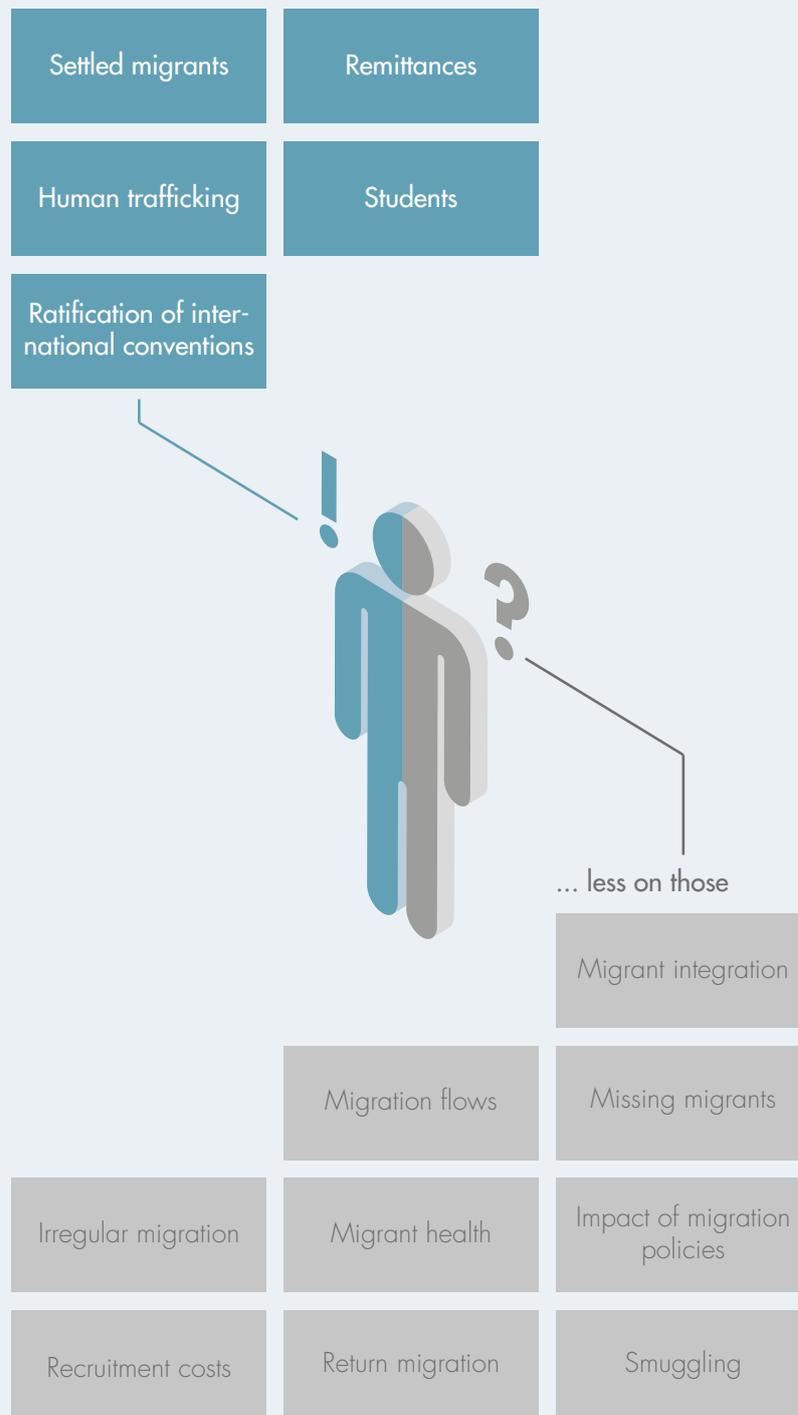
What key interventions at the global, regional and local level are required to drive the agenda on migration data?

Rather than providing comprehensive guidelines on the use of data in migration, this report seeks to share ideas that act as a starting point for countries as they tackle these questions.^{iv} Chapter 04 presents a newly developed framework that outlines the dimensions across which data can help capture value; Chapter 05 explores how

IV For those interested in technical guidance on the benefits of using surveys, censuses or administrative data, browse the 'tools' section on the Global Migration Data Portal, accessible from <http://migrationdataportal.org/tools>.

EXHIBIT 1
Data collection varies among different migration topics

More data is collected on these migration topics ...



Source: Own elaboration based on Laczko, 2017; United Nations, 2016

insights derived from data can help capture the potential payoffs from data investments through select case examples.^v Finally, Chapter 06 proposes a road map for countries in constructing their own data strategies, and Chapter 07 defines relevant initiatives required at the global, regional and national levels.

More than just numbers, sound data and analysis can enable decision makers to identify a problem, design a policy response, as well as implement and evaluate relevant interventions. Effective use of data can help transform the migration debate, which is often driven by emotion and political sensitivities, into one rooted in evidence and objective analysis – and thus enable better outcomes for migrants, governments and societies alike.

^v Examples of where potential values may accrue are not exhaustive. It has to be acknowledged that not all values can be measured.

04

The value of migration data – a framework

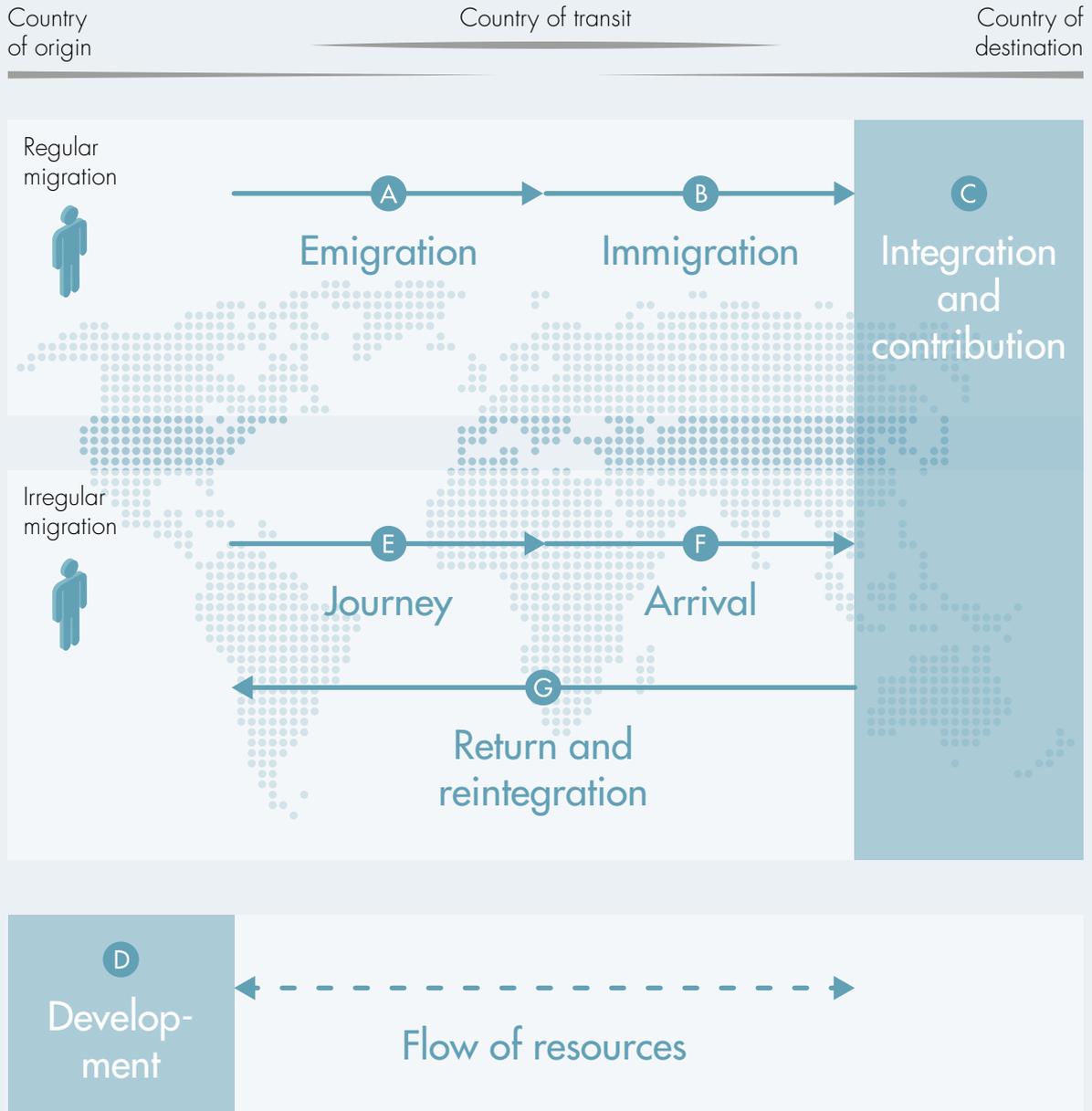
With about 258 million people currently estimated to be residing outside their country of birth – a number that has almost tripled in the past 50 years¹⁰ – the stakes in migration governance are increasing. Population movements present policy challenges across a myriad of dimensions ranging from labour market participation to border management, and require coordination among various stakeholders including government, civil society organizations and the private sector. In light of these growing challenges, data is critical to enable improved migration governance and to drive economic, humanitarian, social and political benefits.

This chapter introduces a comprehensive framework, shown in Exhibit 2, that outlines seven dimensions (labelled A to G) in which effective usage of data can yield value for migrants and non-migrants alike in countries of origin, transit and destination. Within the context of such an intricate and multifaceted topic, this framework seeks to establish a common language and a structured approach to make the case for investments in migration data.^{vi}

The framework roughly categorizes migration into two broad streams: “regular migration” and “irregular migration.” For the purpose of this report, both refer to international, first-generation migrants. Regular migration consists of migration that “occurs through recognized, legal channels,”¹¹ whereas irregular migration includes those who have entered a country or stayed on without valid authorization. This includes visa-overstayers as well as asylum seekers^{vii} and forced migrants until they have claimed asylum officially or their claim has been refused.^{viii} Within both these streams, data can enable value for countries of origin, transit and destination along all steps of the migration process.^{ix}

-
- VI The framework provides a structure to articulate in which dimensions value can accrue and where data can make a difference. It is not to be understood as an analytical framework exhaustively describing all relevant aspects within the topic of migration. Migration takes place between low-income countries, between high-income countries and from low- to high-income countries. Within this framework, countries of origin, transit and destination can therefore be low-, medium- or high-income countries.
- VII Asylum seekers are defined as persons who seek safety from persecution or serious harm in a country other than his or her own and await a decision on the application for refugee status. Migrants may irregularly cross a border in search of refuge, however, once they apply for asylum, they become “regular migrants” upon application. For the readability of this report, asylum seekers will be addressed under the “irregular migration” category, while recognizing that the categorization of asylum seekers can fluctuate between “regular” and “irregular.”
- VIII It is important to note that migrants may move in and out of irregularity, and the distinction is not always clear.
- IX Migration takes place between low-income countries, between high-income countries and from low- to high-income countries. Countries of origin, transit and destination can therefore be low-, medium- or high-income countries.

EXHIBIT 2
 A framework for capturing the value of migration data – Overview



The seven dimensions (A–G) can further be broken down into 21 subdimensions, as shown in Exhibit 3. Each dimension and subdimension will be described in further detail in the following section.

REGULAR MIGRATION

A – Emigration: As citizens leave their home countries to pursue employment opportunities abroad, it is critical for the countries they are leaving to effectively **balance potential adverse effects of excessive emigration (1)** on certain labour market segments, while encouraging the developmental benefits of emigration (see Section D). For example, governments may play an active role preparing emigrants for gainful employment abroad, or promoting circular migration. In addition, countries should seek to **prevent economic and labour exploitation (2)** of emigrants, e.g. excessive recruitment costs borne by the migrants themselves or substandard working conditions.

B – Immigration: Destination countries can manage the inflow of labour migrants in a way that **attracts relevant target groups (3)** and thus stimulates economic growth, mitigates potential demographic challenges and fills key occupational shortages. Such efforts should be supported with **efficient immigration processes (4)** in order to reduce the transition period before immigrants can start a new chapter in their new home.

C – Integration and contribution: As newly-arrived immigrants settle into their host country, they face the challenge of becoming equal participants in the local economy and society. This includes aspects such as **language acquisition (5)**, **adequate housing (6)**, and access to basic services such as **healthcare (7)**, and **education and training (8)**. Given the immense potential benefits of successful integration for migrants and non-migrants, destination countries should seek to **optimize employment outcomes (9)** of migrants, while **fostering social inclusion** (including acceptance of diversity and reduction of discrimination) **(10)** and **civic engagement (11)**.

D – Development: Diaspora communities can contribute considerably to the development of their home countries through the provision of **human capital and knowledge (12)**, for example, upon their return home. They also have a role to play while abroad through **remittances, trade and investment (13)**.

IRREGULAR MIGRATION

E – Journey: As migrants travelling irregularly are often particularly vulnerable, **ensuring migrant safety and protection (14)** during their journey across international frontiers and through transit countries is critical. From the perspective of destination countries, irregular migration journeys necessitate the management of national borders in order to **maintain border security (15)**.

F – Arrival: Host countries receiving irregular migrants and unexpected inflows of asylum seekers need to ensure sufficient capacity to **cater to their basic needs (16)**. **Guaranteeing orderly registration (17)** and **ensuring efficient asylum processes (18)** is also necessary to process migrants arriving without a legal status in a timely manner.^x For those whose asylum applications have been approved, host countries have a role to play in **planning a balanced geographic allocation (19)** nationwide to maximize these migrants’ chances of successful integration and avoid a disproportionate burden on individual municipalities.

G – Return and reintegration: Those denied the authorization to remain in the destination country are under legal obligation to return. **Managing effective and sustainable return (20)** processes for those ordered to leave is essential to upholding the rule of law and thus minimizing the number of irregular migrants in-country in a cost-efficient manner.^{xi} **Successful reintegration (21)** is equally important in optimizing migrants’ chances of a sustainable return to their home country and limiting the burden on origin countries.

THE ROLE OF DATA

Data alone will not lead to better migration outcomes. However, data is a critical enabler to capturing many of the substantial positive effects of migration. As shown in Exhibit 4, reliable data along the identified dimensions supports policymakers in different ways:

Support decision-making by informing policymakers on the nature of specific migration-related challenges, their root causes and potential future developments

Facilitate the implementation of policies by helping direct interventions to where and when they are needed

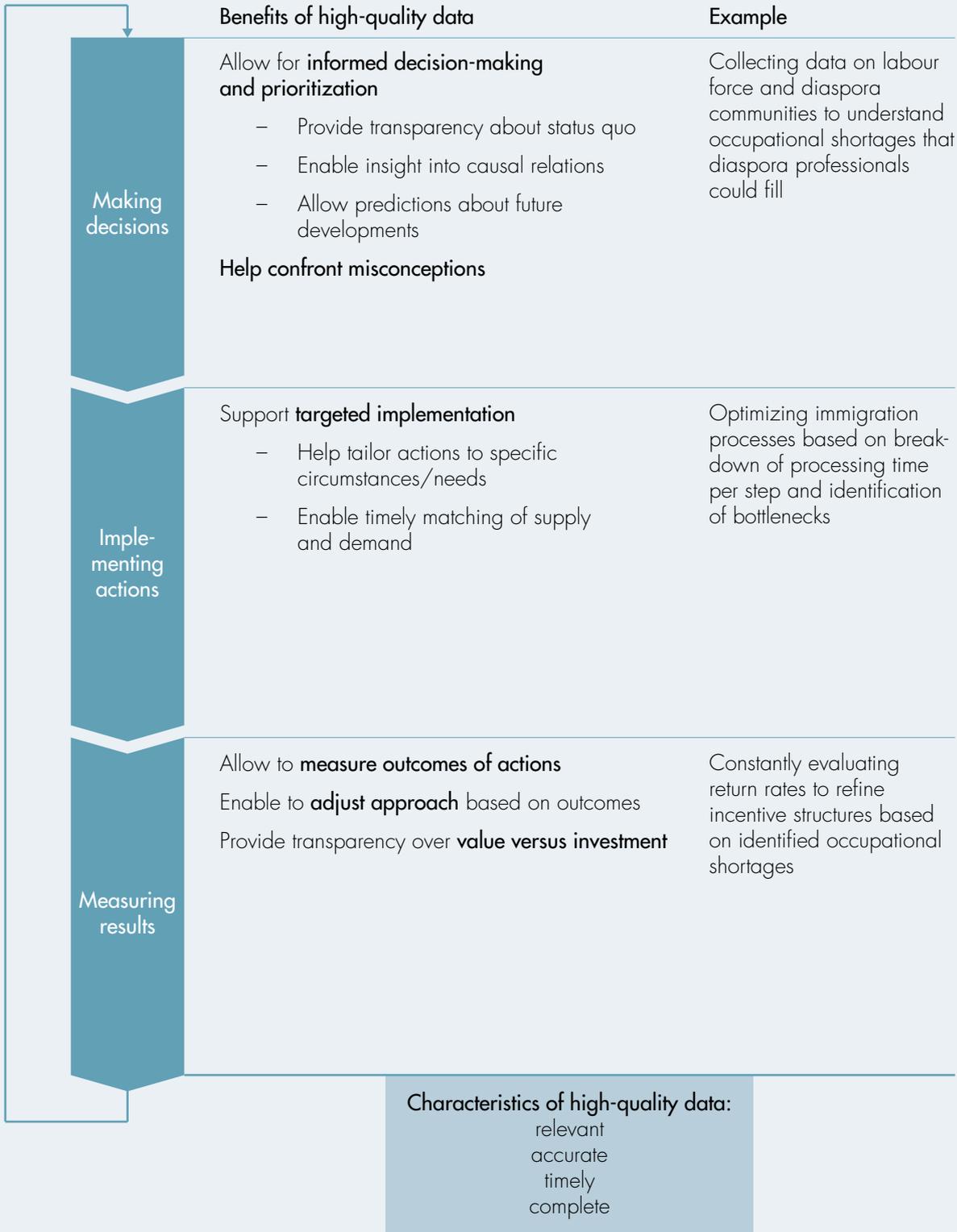
Help inform policy adjustments over time by measuring and evaluating the results of policy interventions.

As such, data provides an informed basis for making decisions and prioritizing investments, tailoring relevant interventions and enabling the delivery of better migration outcomes.

X Migrants have a right to apply for asylum and categorizing asylum processes as irregular migration may appear misleading. Aiming for a consistent view on where value can accrue in different migration settings, asylum processes are subsumed under irregular migration referring to the situation where migrants enter a country irregularly to claim asylum. It needs to be acknowledged that there are many exceptions to irregular entry of asylum seekers, including resettlement. In the developed framework, irregular implies that migrants leave their country of origin without a pre-arrival permission to enter the country of destination.

XI We recognize that voluntary return is not subject to the legal status of a migrant. “Regular” and “irregular” migrants may choose to seek assistance for return.

EXHIBIT 4
Data informs policymaking in various ways



05

Investing in data pays off for
migrants and countries alike

As established in Chapter 04, data-driven migration governance can help unlock real economic, social and humanitarian benefits across seven core dimensions of migration. This chapter explores in further depth how potential payoff from investments in data can be achieved.

A – EMIGRATION

Why it matters

As citizens pursue employment opportunities abroad, it is critical for countries of origin to **balance potential adverse effects of excessive emigration** against the developmental benefits of emigration as mentioned in section D. Managing the departure of skilled human capital, i.e. “brain drain”, as well as workers in specific industry segments, is key to maintaining a robust and sustainable labour market. Currently almost one in ten tertiary-educated adults born in low- and middle-income countries (accounting for 30–50 per cent of these countries’ science and technology personnel) lives in high-income countries.¹² The severity of this is particularly pronounced for small, developing countries like Haiti and Jamaica, which see over 80 per cent of their skilled workers emigrating, while another approximately 20 countries, mostly in sub-Saharan Africa or Asia^{xii} lose up to half their college graduates to emigration.¹³ In some cases, such losses can shift the skill structure of a country’s labour force, lead to occupational shortages in certain sectors, adversely affect fiscal incomes and hamper overall technological progress.

For the individual migrant, emigration represents an opportunity intertwined with risk. Whereas irregular migrants can be subject to risks such as human trafficking, regular migrants can be vulnerable to various forms of **economic and labour exploitation**. Recruitment costs (i.e. costs migrant workers are required to pay to intermediaries to be matched with a job abroad) are prevalent across migration channels worldwide; they are typically high in amount and disproportionately affect those at the lower end of the income spectrum. Even prior to departure, labour migrants pay up to the equivalent of 20 months’ wages in recruitment costs,^{xiii,14} just to obtain a job placement abroad. Upon arrival, labour migrants may be subject to substandard living and working conditions, with little protection in the form of fixed working hours, social security and occupational health and safety.

XII E.g. Liberia, Sierra Leone, Somalia, Afghanistan, Cambodia.

XIII E.g. for Pakistani construction workers in Saudi Arabia.

The potential value at stake – selected examples^{xiv}

As shown in Exhibit 5, leveraging data to tackle forms of emigrant exploitation such as recruitment costs can yield considerable value.

How data can help capture value

1. Balancing potential adverse effects of excessive emigration:

Prepare emigrants for employment abroad: E.g. occupational gaps in global markets mapped against the profiles of domestic labour as well as the underlying educational systems can facilitate policymakers in managing education and skills acquisition according to foreign labour market needs.

Identify and respond to excessive “brain drain”: E.g. number of jobs unfilled per occupation compared with number of emigrants per occupation can point to areas in which excessive skilled emigration occurs and show where incentive schemes should be targeted to encourage high-skilled citizens to remain in-country (see Section D.12 for “brain gain”).

Encourage circular migration: E.g. profiles of temporary emigrants can enable policymakers to identify drivers of circular migration (e.g. new knowledge and wage increase abroad) and design incentive schemes to encourage circular migration.

2. Preventing economic and labour exploitation:

Focus interventions on relevant channels: E.g. matrices showing recruitment costs as a percentage of salary along various migration corridors (i.e. origin and destination country) and channels (e.g. company direct hire, recruiting agency) can shed light on the extent of economic exploitation in each destination country and what areas policies should target.

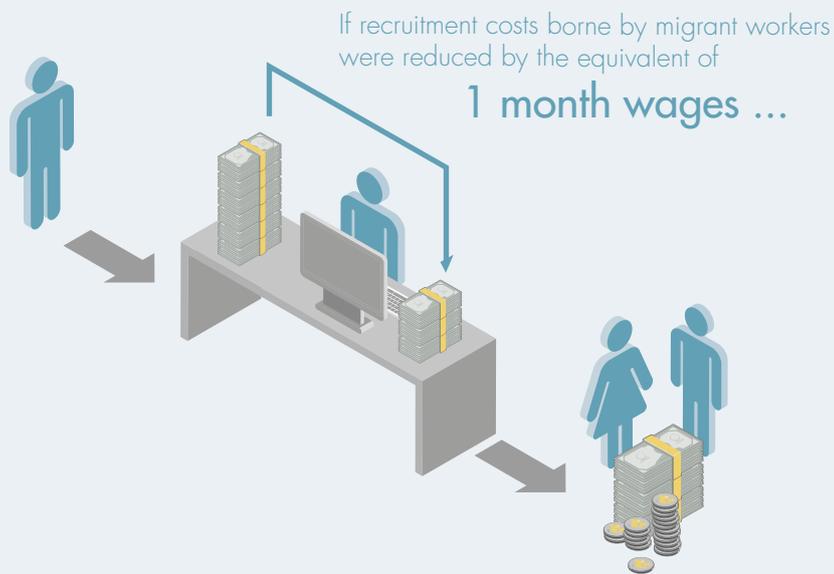
Protect migrants in vulnerable situations: E.g. a breakdown of recruitment costs by factors such as migrant skill level, duration of employment contract and channel of recruitment helps identify groups that are most likely to need protection, and circumstances under which exploitation is likely to occur.

Target relevant cost reductions: E.g. a disaggregation of recruitment cost components – cost for intermediary services, cost for required visa etc. – can indicate a feasible level of reduction in recruitment costs, and which cost components to target in managed reductions.

XIV For methodology of examples please also see appendix (methodology for cases and value calculations).

EXHIBIT 5
Providing transparency on the composition of recruitment fees could reduce cost for labour migrants in four Arab Gulf¹ states alone by about USD 3–6 billion

Worker-paid recruitment fees can exceed the equivalent of **20 months of earnings**



... emigrants' savings could be increased by **~ USD 3–6 billion** in four Arab Gulf¹ states alone (exemplary due to limited availability of data on recruitment cost globally)

Worker-paid recruitment fees are a major drain for the financial well-being of migrant workers abroad. Costs vary across migrant corridors and professions and can exceed the equivalent of 20 months of earnings.

Reliable data on recruitment cost per corridor is extremely sparse. The lack of transparency of fee structures is seen as one of the main reasons for high costs.

Reducing recruitment cost borne by migrant workers translates into direct savings for migrants. (Recruitment costs are prevalent worldwide. The estimate above is limited to labour migrants in four Arab Gulf¹ states due to limited availability of data on

recruitment cost globally.)

How data adds value

Collecting data on recruitment fees paid by different socioeconomic groups of emigrant workers in diaspora by recruitment agency and migration corridor

Analyzing the magnitude of earnings that could be saved for emigrants and their families if recruitment fees were reduced

Providing potential emigrants with information on less expensive employment opportunities

¹ Analysis estimates the reduction of recruitment costs for migrant workers in Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates (due to limited availability of data on recruitment cost globally).

Source: GMDAC/McKinsey, based on material from KNOMAD and UN DESA.

Improve employee protection: E.g. share of migrants contractually protected by working standards such as maximum working hours, a decent wage and working conditions can show in which dimensions migrants might require further protection.

Optimize efficacy of interventions: E.g. actual reduction in recruitment costs by type of intervention (e.g. regulating recruitment practices, cooperating with destination countries) can show which policies are most impactful and should be pursued.

B – IMMIGRATION

Why it matters

Roughly 65 per cent of the world's international migrants are part of the global workforce.¹⁵ Around the world, each country has the opportunity to **attract** immigrants from **relevant target groups** to stimulate economic growth, mitigate demographic challenges and fill key occupational shortages. In major countries of destination,^{xv} immigrants drive 40–80 per cent of labour force growth,¹⁶ which in turn helps fuel economic growth. This can be particularly valuable in mitigating demographic challenges for countries with a high ratio of non-workers to workers in its population. For example, additional immigration could alleviate the demographic and economic challenges arising from the increasing dependency ratio^{xvi} of EU countries, which is set to increase from 0.29 in 2015 to 0.50 in 2050¹⁷ (meaning that for every 10 workers there will be five people not of working age). Lastly, targeted immigration can help fill critical skill shortages and occupational gaps. Currently, 81 per cent of firms^{xvii} in Japan encounter difficulty finding qualified employees;¹⁸ the number of physicians per 1,000 population in South Africa stood at 0.8 in 2014, compared to a global average of 2.7.¹⁹

Managing such inflows requires **efficient immigration processes**. Spending on processes related to immigration can be hefty, for example the annual budget of the United States of America Immigration and Customs Enforcement amounted to USD 6 billion in 2016.²⁰ Furthermore, immigration processes can be complex, involving multiple immigration pathways, numerous process steps, and considerable processing times. Applicants seeking an economic class visa to Canada can expect to wait up to 56 months for certain application categories.²¹

The potential value at stake – selected examples

Effective management of immigration, facilitated by data, can help attract target groups for the benefit of the domestic economy, for example:

-
- | | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| XV | Based on a sample of 18 destination countries, including the United States of America, Germany, the United Kingdom of Great Britain and Northern Ireland, Canada, France, Australia, Spain, Italy, Switzerland, the Netherlands, Sweden, Austria, Belgium, Greece, New Zealand, Norway, Denmark, Finland. |
| XVI | High dependency ratio indicates that a high proportion of the overall population comprises people not of a working age and not in the workforce. |
| XVII | Includes firms with ten employees or more. |

Identifying and incentivizing target groups with relevant skill sets from abroad can help close domestic labour market gaps. Between 2005 and 2015, Australia increased the number of job vacancies filled by employer-sponsored migrants with relevant skills by approximately 14 per cent each year.^{xviii,22}

~ 14% p.a.
increase in job
vacancies filled by
employer-spon-
sored migrants

How data can help capture value

3. Attracting relevant target groups:

Develop target skill profile: E.g. employment rates and number of unfilled vacancies per occupation can pinpoint labour market needs and enable to derive target skill profiles.

Focus outreach on locations with relevant skill groups: E.g. the count of persons educated with the target skill profile in key emigrant countries can indicate where potential immigrants with the relevant skills are located.

Incentivize immigration: E.g. the wage level of comparable immigrants (already residing in the host country) can show what motivates immigration and inform the design and promotion of migration incentive schemes accordingly.

Optimize efficacy of engagement: E.g. visa application volumes in each target group category or immigration-related website traffic by country of origin can show how effectively relevant target groups are engaged and how this can be optimized.

4. Ensuring efficient immigration processes:

Improve process efficiency: E.g. a breakdown of time per process step and waiting times can pinpoint bottlenecks in immigration processes, uncover underlying reasons and inform process optimization efforts to reduce, e.g. visa processing times.

Facilitate planning: E.g. forecasts of migration flows can support decisions on when and where additional capacity and resources should be allocated to ensure timely processing.

Enhance communication efficacy: E.g. share of applicants who do not meet minimum eligibility criteria can indicate whether immigration guidelines are sufficiently clear and inform targeted communication efforts.

XVIII Immigration to Australia is made up of the family stream and the skill stream. These streams saw increased migrant intakes by about 35 per cent and about 31 per cent respectively over this period. Employer-sponsored visas are one component within the skill stream. Between 2005 and 2015, growth in the skill stream was predominantly driven by immigrants with employer sponsorship. The total number of people immigrating through the skill stream went up from about 40,000 in 2000 to about 120,000 in 2017.

C – INTEGRATION AND CONTRIBUTION

Why it matters

Language acquisition is the first step for migrants to weave their way into the fabric of mainstream society; language proficiency is one of the most important prerequisites for employability and earning potential, and is critical to enabling social participation. Despite the importance of language on labour market outcomes, first-generation migrant students lag their native-born peers one to two years in language proficiency across OECD countries.^{xx,23}

Safe and affordable **housing** is fundamental to immigrant families' ability to settle in, adapt to and thrive in their new communities. Several disparities, however, demonstrate unequal access to this vital resource, for example in the EU, 26 per cent of non-EU-born persons face a shortage of space in their housing versus 19 per cent of EU-born persons.²⁴

Affording migrants access to quality **healthcare** services improves their capacity to contribute to the local economy and society, and plays a role in improving overall public health outcomes. Scientific evidence shows that immigrants tend towards a lower use of health services than native-born populations, with differences in utilization for certain subgroups and types of services.²⁵ Though not as pronounced as in other areas, health outcomes of migrants can also differ from that of native-borns; up to 5 per cent more migrants reported unmet medical needs in major countries of destination^x, as compared to native-borns.²⁷

For migrants, relevant **education and training** is essential for establishing a solid foundation for a better future; for host countries, it can boost the productivity and competitiveness of their future labour force. Host countries should ensure migrants have access to affordable, quality education or vocational training that enables a smooth transition to gainful employment. First-generation migrant students lag their native-born peers about one year in schooling across OECD countries,^{xx,26} with a difference in literacy scores between native-borns and migrants of up to 60 per cent, for example in Sweden.²⁷ As such, support might require tailoring according to specific migrant needs to mitigate inherent disadvantages and minimize disparities in learning outcomes.

The economic contribution of migrants to the host country can be considerable; migrants help expand workforces and fill key labour market gaps. Positive **employment outcomes** are associated with contributions to GDP, total factor productivity and fiscal revenues; estimates put migrant contributions to global GDP at USD 6.7 trillion in 2015.²⁸ Additionally, they augment the competitiveness of the domestic economy through disproportionate contributions to innovation, new business formation and job creation; as of 2015,

XIX Reading performance used as proxy. The 2015 Untapped Skills report by the OECD found an average point differential equivalent to about one to two years.

XX Based on a sample of 16 destination countries, including the United States, Germany, the United Kingdom, Canada, France, Spain, Italy, Switzerland, the Netherlands, Sweden, Austria, Belgium, Greece, Norway, Denmark, Finland.

XXI Performance in science used as proxy, controlled for socioeconomic status.

foreign nationals held over 50 per cent of all patents filed in the United States.²⁹ Nevertheless, migrants encounter hurdles to full integration in the domestic labour force. It is harder for them to secure jobs, and they face an unemployment rate that is up to 10 per cent higher than that of native-borns across major destination countries.^{xxii,30} Even when productively employed, migrants incur a 20–30 per cent wage differential versus comparable native-born workers.³¹ Furthermore, their skills are often underutilized; in the EU, about 33 per cent of highly educated immigrants are overqualified for their jobs.³²

Social inclusion is critical given that migrants can be subject to discrimination in host countries. In European countries in the 10 years from 2002 to 2012, 18 per cent of immigrants claimed to belong to a group that is discriminated against on account of ethnicity, nationality or race.³³ While discrimination might be a predominantly social sentiment, legislation and regulations could make immigrants' efforts to secure housing, education, employment, or healthcare more difficult. Such barriers not only adversely affect individual immigrants and their families, but reduce societal cohesion and stand in the way of the development of the host community.

Civic engagement of migrants as indicated by factors such as naturalization rate, voter participation and political representation signals the volume of their political voice and the depth of their connection with the local community. The naturalization of migrants can yield considerable benefits for host countries, including higher employment rates and fiscal revenues. In the EU, about 62 per cent of eligible non-EU immigrants naturalize; the corresponding figure for the United States is about 60 per cent.³⁴ Naturalized migrants also tend to vote less than native-borns, with a voter participation rate that is 5–10 per cent lower^{xxiii} in major countries of destination.

The potential value at stake – selected examples

Successful integration and inclusion, for example through the provision of targeted language classes and education, can yield significant value in terms of economic, social and political outcomes.

A study on the United Kingdom of Great Britain and Northern Ireland labour market found that among non-native speakers, higher English language proficiency was positively correlated with a higher employment rate. Immigrants' employment rates can be increased by 15–20 percentage points by using data to identify language gaps early on and providing targeted local access to language classes.^{xxiv}

XXII Based on a sample of 18 destination countries, including the United States, Germany, the United Kingdom, Canada, France, Australia, Spain, Italy, Switzerland, the Netherlands, Sweden, Austria, Belgium, Greece, New Zealand, Norway, Denmark, Finland.

XXIII Based on foreign-born population that has been in the destination country for at least ten years; metric includes the United States, Germany, Spain, the Netherlands, Sweden, Belgium, Greece.

XXIV Please also see appendix (methodology for cases and value calculations).

15 - 20

percentage points increase in immigrants' employment rates enabled by targeted initiatives to increase language proficiency

Identifying education gaps and targeting education efforts accordingly could yield up to 10 per cent higher incomes for every additional year of schooling^{XXV} for migrants. Data analysis of education gaps could drive targeted policy interventions that seek to improve migrants' educational performance and convergence outcomes of migrants and their native-born peers.

Up to 10%

increase in migrant income through targeted education

Exhibit 6 shows an example of the value that could be achieved through better matching jobs with migrants' skills. Exhibit 7 showcases the potential benefits of increasing naturalization rates.

How data can help capture value

5. Improving local language acquisition:

Stimulate participation: E.g. proportion of migrants that are aware of, enrolled in or have completed language courses can indicate participation levels and help design policies that overcome barriers to access such as lack of transparency on language options.

Ensure timely availability: E.g. number of seats available in language/integration classes compared with new migrant populations per region can indicate where capacity is a potential barrier to timely access and should be increased.

Ensure affordability: E.g. cost of language/integration classes (where not paid by government) as a fraction of migrants' salaries compared with enrolment rate can indicate the degree of affordability and how this affects participation.

Optimize learning formats: E.g. portion of migrants that reach a language level of working proficiency and time taken to do so, by learning format (e.g. online versus in-person, degree of customization by student's educational background or mother tongue) can enable a better understanding of optimal format of language support.

6., 7., 8. Housing, healthcare, education, and training

Ensure availability for migrants and native-borns alike: E.g. housing capacity (number of housing units available for rent), number of healthcare professionals per 1,000 population, or classroom capacity in each geographic area can indicate whether the provision of resources that cater to basic needs is adequate.

XXV Please also see appendix (methodology for cases and value calculations).

EXHIBIT 6

Data-driven matching of qualifications and jobs could yield around EUR 5–7 billion in income increases for highly educated migrants in the EU alone

Bringing an additional **10%** highly-educated immigrants in the EU into jobs matching their qualifications ...



... would increase the income for these immigrants by

~ EUR 5–7 billion

(in the EU alone)

Underutilization of immigrants' skills has been a persistent and significant problem in many countries of destination (e.g., a Canadian study estimated the losses from overqualification of immigrants in Canada to equal CAD 2 billion).

In the EU, about 30 per cent of highly educated immigrants are overqualified for their jobs. Overqualification significantly depresses wages of immigrants.

Bringing 10 per cent more highly educated immigrants in jobs matching their skills (thereby reducing the overqualification rate to a similar level of that of the native-born population) would increase their income by about EUR 5–7 billion.

Source: GMDAC/McKinsey, based on material from the OECD and the Journal of International Migration and Integration

How data adds value

Identifying and categorizing comparable data on immigrants' professional and educational qualifications

Analyzing how skills compare between different immigrant groups and the native-born population. **Matching** potentials with employers based on actual skills

Facilitating access for immigrants to positions matching their skills, e.g. through training to close contextual skill gaps or foreign qualification recognition

Establish equitable access: E.g. housing application success rate, school-enrolment percentages or number of medical visits for migrants versus native-borns could shed light on potential barriers to access.

Improve affordability: E.g. housing price per square foot, school fees or training costs, and healthcare spend, as a percentage of income for migrants and native-borns can show areas in which there is a disproportionate cost burden.

Deliver impactful outcomes, e.g.:

- Share of migrants versus native-borns living in units that are safe, well-equipped, in integrated neighborhoods, in reasonable proximity to their workplaces and public services can show if housing supports employment and social inclusion.
- Health indicators for migrants versus native-borns such as average life expectancy or disease incidence can show whether quality medical services that enhance health outcomes are being provided.
- Literacy rate, educational attainment, days between programme completion and employment, and share of graduates with a job related to their training for migrants versus native-borns can show if education is relevant and facilitates the transition to employment.

9. Optimizing employment outcomes and improving well-being:

Maximize labor market participation: E.g. proportion of migrants employed in the formal economy and time to employment, by profile (e.g. occupation, educational background) can help highlight key determinants of employment for migrants.

Improve productivity via skill-work matching: E.g. portion of migrants with jobs for which they are overqualified can show potential productivity gains from better matching migrants with relevant jobs. The profile of overqualified migrants and details on their credentials can show which professions tend to fail at recognizing qualifications.

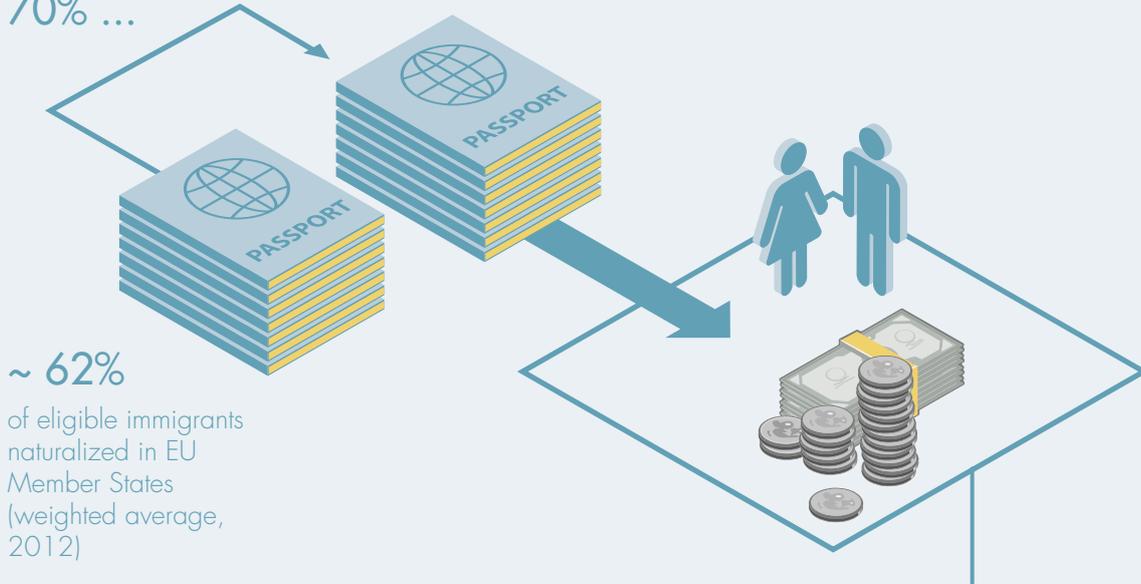
Boost competitiveness of domestic economy: E.g. number of patents held by migrants, the number of migrants that are business owners, and number of people employed can indicate the extent to which migrants contribute to innovation, new business formation and job creation in the host country.

Enhance economic well-being: E.g. average income and poverty rate of migrants versus native-borns can pinpoint biases in the labour market and illustrate the potential gains in migrant well-being as well as GDP and fiscal revenues if the wage gap were to close.

EXHIBIT 7

Increasing the average naturalization rate in the EU from 62 to 70 per cent can yield income increases of around EUR 0.7–1.6 billion annually. Data is key to identify and target eligible immigrants

Increasing the rate to
70% ...



In the EU, around 62 per cent of eligible immigrants acquire their host country's citizenship. Naturalized immigrants often have better labour market outcomes than their peers who did not naturalize.

Studies from the US and Germany have shown that naturalization increases the average income by roughly 3–7 per cent, as immigrants are able to access a broader range of job opportunities and financial services.

Assuming the income increases these studies have found, the EU could see around EUR 0.7–1.6 billion in additional income if naturalization of eligible immigrants were increased to 70 per cent.

Source: GMDAC/McKinsey, based on material from the Urban Institute, OECD and Eurostat

How data adds value

Identifying the number, whereabouts and socioeconomic characteristics of immigrants eligible to naturalize

Analyzing the characteristics of target groups and potential benefits of naturalization (e.g., increases in income, fiscal revenue, homeownership and employment rates) to inform policy-making and prioritization

Better **addressing** eligible immigrants through policy-making and targeted naturalization campaigns to help increase naturalization rates and unlock value for society and immigrants alike

Mitigate adverse effects on native-born persons: E.g. employment rates and wage levels of native-borns both prior to and after migrant inflows can show whether migrants affect local employment opportunities and conditions and thus provide evidence on an emotionally-charged topic.

10. Fostering social inclusion:

Foster acceptance of diversity and minimize discrimination: E.g. surveys that gauge the share of migrants reporting experiences of discrimination or the share of native-borns with a negative perception of migrants can indicate the prevalence of discrimination in society and whether intervention is required.

Protect vulnerable groups: E.g. a breakdown of incidence of discrimination by migrant profile (including, e.g. ethnic background, country of origin) can impart a view on which migrant groups are particularly vulnerable and might require additional protection.

Focus on key inequities: E.g. difference between migrants and native-borns on measures such as employment rate, income, access to housing and basic services can highlight areas in which migrants are afforded inequitable access and where interventions should be targeted.

11. Driving civic engagement:

Enhance civic participation: E.g. share of migrants involved in community groups, with the migrant profile matched against organization type shows the extent of community engagement, and whether this bridges or bonds social divides.^{XXVI}

Ensure political voice and representation: E.g. share of eligible political representatives from particular migrant groups versus share of the overall population belonging to that group shows how politically well-represented each group is.

Encourage naturalization of settled migrants: E.g. naturalization's impact on key outcomes (e.g. employment rate, fiscal revenues) shows its benefits and encourages policymakers to undertake initiatives to boost naturalization rates; the share of eligible migrants that naturalize, by characteristics such as educational background and origin country, reveals which groups should be targeted in doing so.

XXVI Bridging social divides refers to building connections with people from various walks of life; bonding social divides refers to reinforcing links between like-minded people of similar backgrounds.

D – DEVELOPMENT

Why it matters

Countries of origin can engage with diaspora communities to regain **human capital and knowledge** and thus boost the local economy and fill labour market gaps. Encouraging return migration of skilled professionals (“brain gain”) can generate benefits for home countries, as migrants often bring knowledge and productivity gains. For example, in the early 2010s, over 130,000 Albanian emigrants returned from Greece;³⁵ abroad, they had acquired technological skills, e.g. in agricultural techniques, which enabled them to create both jobs and new export opportunities in Albania. Return migrants were three times as likely to employ others as non-migrants, and their entrepreneurship in turn led to 3–6 per cent higher wages for low-skilled Albanians who had never migrated.³⁶

Diaspora communities can also contribute to local development by sending **remittances** and promoting **trade**, foreign **investment** and tourism. In 2017, the volume of worldwide remittances is projected to reach the USD 600 billion mark, with 75 per cent going to households in low- and lower-middle-income countries.^{xxvii} This equates to over three times the amount of official development assistance (ODA) in 2016 (about USD 140 billion)³⁷ and highlights the importance of remittances for the growth of developing countries. Despite this, transaction fees average about 7 per cent globally and reach almost 20 per cent in specific corridors in sub-Saharan Africa.^{xxviii} If countries were to reduce remittance fees to the SDG target rate of 3 per cent, this would remove a significant barrier restricting the flow of remittances and translate into economic gains for families and their local communities in countries of origin.

The potential value at stake – selected examples

As shown in Exhibits 8 and 9, using data to better understand and engage diaspora can inform the design of interventions that help spur the development of the domestic economy.

How data can help capture this value

12. Regaining human capital and encouraging knowledge transfer:

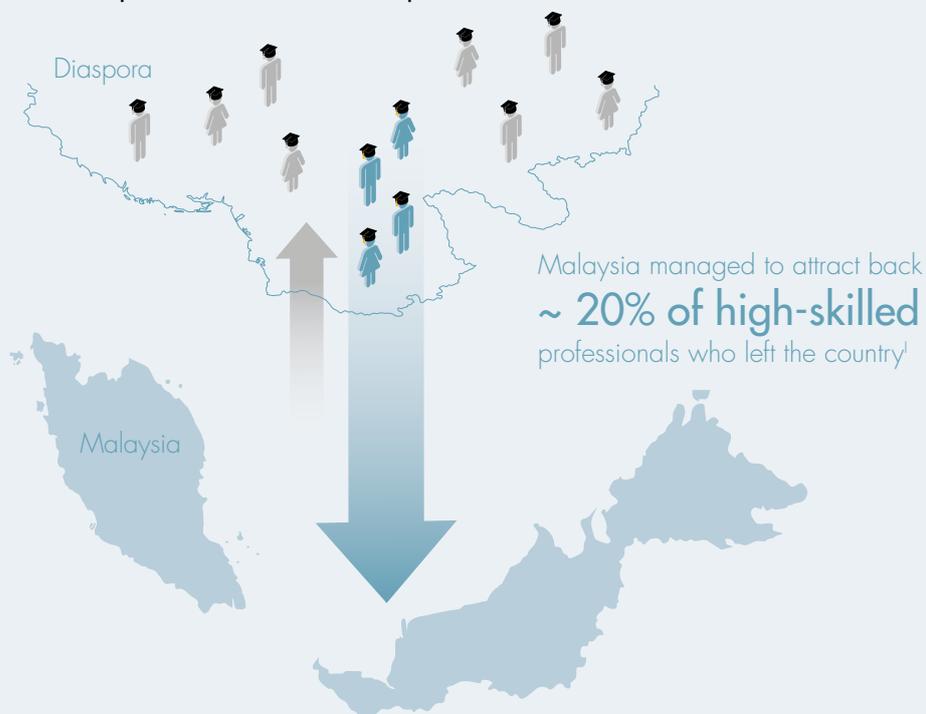
Engage diaspora communities: E.g. data on the size, demographic composition, whereabouts and skill sets of diaspora communities can help policymakers identify specific diaspora communities with the skills and knowledge most needed back at home and then engage them for knowledge transfer.

xxvii Country classification as per World Bank.

xxviii According to the World Bank Remittance Prices Worldwide database, the transaction fees for sending USD 200 from South Africa to Botswana averaged about 19 per cent in the third quarter of 2017. Some money-transferring operators even charged more than USD 50 to send USD 200 (i.e. more than 25 per cent) between these countries.

EXHIBIT 8

Data-driven incentives could encourage return of about 20 per cent of highly educated professionals from the diaspora



The emigration of highly educated and skilled workers can constrain development, lead to occupational shortages, adversely affect fiscal revenues and hamper technological progress.

This is particularly relevant for low and middle income countries: 30–50 per cent of these countries' science and technology personnel reside outside their home country.

Between 2011 and 2017, about 3,000 Malaysians returned through the "Returning Expert Programme" (REP), which encourages the return of highly skilled Malaysians with relevant expertise from the diaspora through targeted incentives.

The REP manages to target a substantial fraction of high-skilled Malaysians,

attracting about 20 per cent of those that leave on an annual basis.¹

How data adds value

Collecting data on occupational shortages and labour market needs

Analyzing diaspora communities and categorize relevant skills

Analyzing potential drivers for return migration of diaspora communities, particularly of those with relevant skill sets and experience

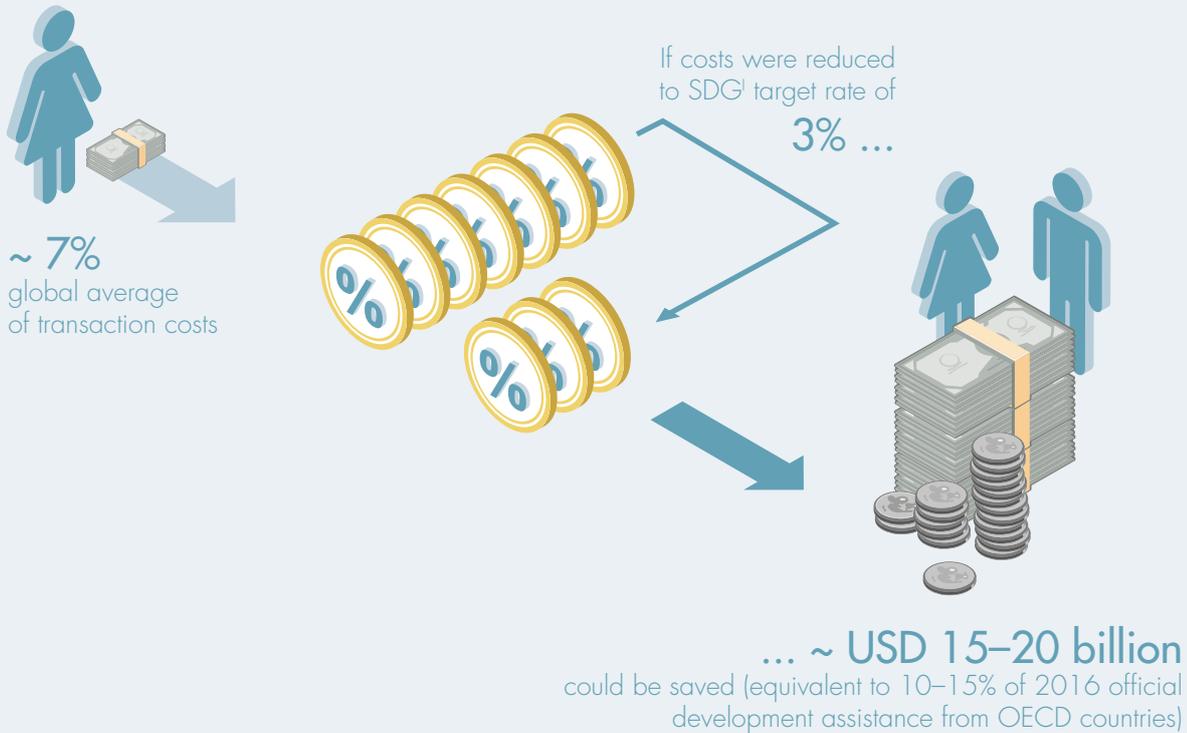
Providing targeted incentive structures for return migration of individuals with relevant skill sets and experience to benefit from circular migration

¹ In 2011–13, an average of about 570 high-skilled Malaysians left for the United States annually, while the REP attracted an average of about 120 applicants per year in the same period

Source: GMDAC/McKinsey, based on material from the Migration Policy Institute, TalentCorp and the World Bank

EXHIBIT 9

Providing diaspora with transparency on cheaper money-transfer options could generate about USD 15–20 billion in remittance increases to low- and middle-income countries



Global remittance flows to low- and middle-income countries are projected to total USD 440 billion in 2017 (more than twice as big as worldwide humanitarian aid), involving > 230 million migrants.

High transaction costs (around 7 per cent global average) divert funds away from remittance recipients. The lack of transparency on transaction fees is seen as the single most important factor leading to high remittance costs.

The SDG¹ call for reducing transaction fees to a target rate of 3 per cent. This could yield USD 15–20 billion in remittance increase for recipients in low- and middle-income countries. This is equivalent to 10–15 per cent of the 2016 level of official development assistance of OECD countries.

How data adds value

Collecting data on socioeconomic characteristics of diasporas, use of remittance service providers, and transaction costs per corridor

Analyzing magnitude of remittance flows that could be saved for recipients and senders by using less expensive service providers

Targeting senders and recipients with tailored information to foster use of inexpensive service providers and realize significant cost savings for senders and recipients

BASED ON WORLD
BANK ANALYSIS

1 Sustainable Development Goals

Source: GMDAC/McKinsey, based on material from the World Bank

Fill domestic labour market gaps: E.g. mapping skill gaps and labour market shortages in the domestic economy with the profiles of diaspora communities (e.g. skill sets, occupation, educational attainment) can enable identification of relevant diaspora and incentivization of their return.

13. Facilitating the flow of remittances, trade and foreign investment:

Increase remittance volume: E.g. data on remittance volume by source country and structural barriers curbing the flow of remittances (e.g. fee structures, transparency issues, access to financial services) may enable governments to intervene in market failures, e.g. by providing senders and recipients of remittances with more transparency.

Boost trade and foreign investment: E.g. data on trade with and foreign investment from emigrant destination countries may help strengthen economic linkages with diaspora communities and inform interventions to maximize economic profits.

Stimulate tourism/visits and charitable giving: E.g. insights into emigrants' spending on tourism/visits and charity may inform tailored marketing campaigns incentivizing increased spending in the home country.

E – JOURNEY

Why it matters

For irregular migrants and asylum seekers (prior to status determination), the journey across international borders is characterized by significant risks to **migrant safety**. Many undertake perilous journeys to reach their destination country. From January 2014 to November 2017, over 22,300 migrant deaths were documented worldwide, with the death rate exceeding 2 per cent in the Mediterranean region in the first half of 2017.³⁸ In reality, these figures could be higher as many deaths are never recorded, and little is known about those who die; the share of remains identified in certain regions can be as low as 25 per cent.³⁹ Additionally, irregular migrants are often vulnerable to human rights violations. There are an estimated 25 million victims of forced labour worldwide as of 2017; roughly a quarter of these cases involve cross-border movement.⁴⁰ En-route, migrants can be subject to violence, which was the direct cause of 13 per cent of migrant deaths in North Africa in 2016.⁴¹ This is of particular concern for women, who are at far greater risk of gender-based violence. In 2010, an estimated 60 per cent of irregular female migrants travelling through Mexico experienced sexual assault.⁴²

From the perspective of destination countries, irregular migration gives rise to concerns regarding **border security** and the enforcement of immigration policies and laws. Between 2014 and 2016, there were more than 2.5 million illegal border crossings^{XXIX} into the European Union.⁴³ According to estimates, there are approximately 11 million

XXIX Refers to detections of illegal border-crossing rather than the number of persons, as the same person may cross the external border several times. However, there is currently no EU system in place capable of tracing each person's movements following an illegal border crossing. Therefore, it is not possible to establish the precise number of persons who have illegally crossed the external border.

irregular immigrants residing in the United States.⁴⁴ Ensuring that incoming migrants pass through controlled border points upon entry is essential for reasons of security, in order to protect against the irregular entry and smuggling of people and goods as well as for the safety of migrants.

Advanced analytics and novel data sources in migration

“Big data” has become a buzzword in recent years. It generally refers to large data sets generated by a range of digital sources. Growing data storage capacity and increasingly powerful computational and analytical methods make it possible to distil actionable insights from these vast and complex data sets.⁴⁵

The ability to use big data to deliver timely insights and establish novel trends and patterns is particularly well-suited to the area of migration. For example, updated information on the flows of people across the globe is key to enabling governments, international organizations and civil society to develop effective migration policies. Using de-identified call detail records or social media activity can be particularly promising to explore people’s mobility. In combination with other sources, this data can help safeguard the integrity of borders and optimize administrative processes in destination countries. Big data can also play a role in personal safety by preventing or addressing the abuses related to smuggling and trafficking and even informing humanitarian efforts when groups flee natural disasters or conflict.

In disaster response, big data has already proven its value. The IOM’s own Displacement Tracking Matrix (DTM) used text mining tools and visualization systems to enable the provision of shelter and other necessities for Filipinos displaced by typhoon Haiyan (2013).⁴⁶ As shown in Exhibit 11, the Swedish non-profit Flowminder used de-identified data from mobile-phone operators to assess mobility and provide humanitarian aid after the earthquakes in Haiti (2010) and Nepal (2015) as well as during the Ebola crisis in West Africa (2014). Currently, a pilot project by the UN Global Pulse seeks to analyze the acceptance of host communities toward refugees and guarantee their safety through an early-warning system based on mining speech-to-text data from radio content.⁴⁷

Within the EU, there have been efforts to analyze and better manage labour mobility and migration with the help of big data. Moreover, big data may be used to support identification through geospatial validation of likely origins. Such analytics supported by big data has the potential to significantly contribute to informed policy interventions in migration-related contexts.

~ 3,800
more missing
migrants identi-
fied if identifica-
tion rate could
be improved by
50 per cent

The potential value at stake – selected examples

Data can be used to facilitate the safety and protection of irregular migrants, for example, by enabling more effective identification of missing migrants, enabling the detection of human trafficking schemes (as shown in Exhibit 10) or tracing people flows (as exemplified by a disaster response case in Exhibit 11).

Using data (e.g. metadata of mobile-phone usage) to “nowcast” migration flows and analyzing rescue efforts could help identify additional missing migrants above the approximately 7,600 migrants that are currently identified per year. If identification rates could be increased by 50 per cent,^{xxx} approximately 3,800 missing migrants could be identified additionally. As the estimated number of unreported cases exceeds the number of reported cases by far, improving the collection and analysis of “live” data could help uncover the fates of the many missing migrants who have never been identified.⁴⁸

Migrant women

Gender-disaggregated data can be a key asset to uncovering the specific needs of migrant women and to shaping migration policy in a way that accounts for this.

Women migrate as much as men and account for approximately 48 per cent of all migrants.⁴⁹ Around 70 million out of the 150 million migrant workers are women.⁵⁰ However, migrant women are particularly vulnerable to discrimination, exploitation and abuse, both during the journey and upon arrival in transit or host countries. Nearly half of the migrant women surveyed in a recent UNICEF study reported having suffered from sexual violence or abuse during the journey.⁵¹ Migrant women also face significant disadvantages when it comes to labour market opportunities: across OECD countries, migrant women are more likely to be unemployed than migrant men of an equivalent skill level.⁵² They are also more likely to work in less regulated and less visible sectors, for example, as domestic workers, than their male counterparts.⁵³

Gender equality among migrants in an economic, social and political sense starts with a better understanding of gender disparities through disaggregated data. The implication for migration data is as simple as it is important: disaggregation by gender is crucial. In turn, this can enable policymakers to design better-targeted policies that address key challenges constraining women from realizing their full potential in society.

xxx Based on the assumption that better data analysis could increase the identification rate by 50 per cent.

Migrant children

Within migrant groups, children are especially vulnerable. They are exposed to greater risks of smuggling, trafficking or other forms of abuse, especially when travelling on their own.⁵⁴ Many children go missing and, for lack of information, are never identified: while having recorded the deaths of 532 children in the Central Mediterranean route between January 2014 and June 2017, the IOM estimates the true number of migrant children deaths to exceed 1,300.⁵⁵

According to UNHCR estimates, children make up half of the world's refugee population,⁵⁶ and the global community agrees that better data could help safeguard and advance their interests, for example, through tailored policy interventions.^{xxxii} Ideally, countries would collect and share standardized data that can function within and across borders.

Reliable, timely and disaggregated data by age is essential for evidence-based policymaking that reflects the needs of migrant children. While data is particularly crucial to assist vulnerable communities in fragile contexts, information on children, their age, sex, and whether they travel with family members or are unaccompanied is limited. Better data could shed light on the flow of migrant children and the specific risks they are exposed to on the move. Data can play a key role in strengthening protection mechanisms and improving the allocation of resources to better address the unique needs of migrant children.

How data can help capture value

Ensuring migrant safety and protection:

Reduce migrant casualties: E.g. the incidence of casualties and casualty rate by route, mode of transportation and time of year can enable mapping of danger hotspots. This in turn can facilitate better-targeted search and rescue operations as well as dissemination of information on the most critical dangers.

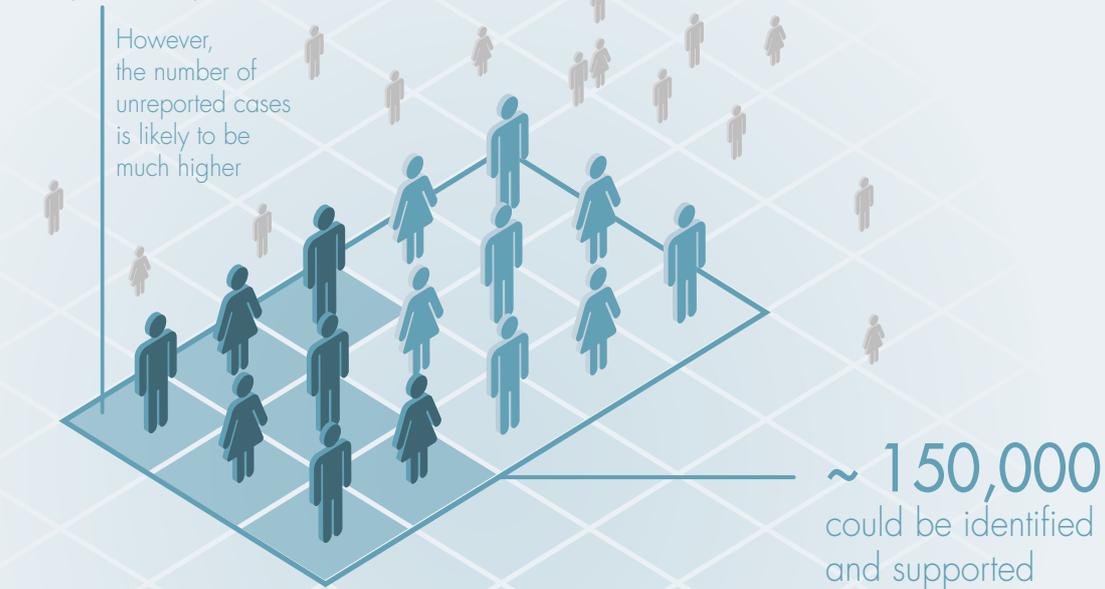
Identify more missing migrants: E.g. real-time data on mobile phone usage or analyzing rescue efforts can increase identification rates of missing migrants.

XXXI In both the 2030 Sustainable Development Agenda and the 2016 New York Declaration, the global community calls for collecting and analyzing data disaggregated by age.

EXHIBIT 10

Data analysis and corresponding interventions could double the number of uncovered human trafficking cases by 2020. This could enable support to approximately 150,000 victims of human trafficking

~ 70,000 cases
are reported today



Human trafficking is one of the most pressing issues of our time. In 2016, about 70,000 victims of human trafficking were identified across the globe. When including the number of unreported cases, this figure is likely to be substantially higher. ILO and Walk Free Foundation estimated that there were about 25 million victims of forced labour; about 5 million of these cases involve cross-border movement.

The US-based NGO Polaris uncovered about 7,600 cases of human trafficking in the US in 2016 based on in-depth analysis of hotline and text message data. Resulting from Polaris' improved detection capacities, this figure more than doubled since 2012.

Applying the rate of Polaris' improved detection capacities to global efforts to

uncover human trafficking could translate into additional about 80,000 victims who could be identified and supported by 2020.

How data adds value

Collecting data on the prevalence, distribution and characteristics of trafficking cases outside a law-enforcement setting (e.g. based on hotline data)

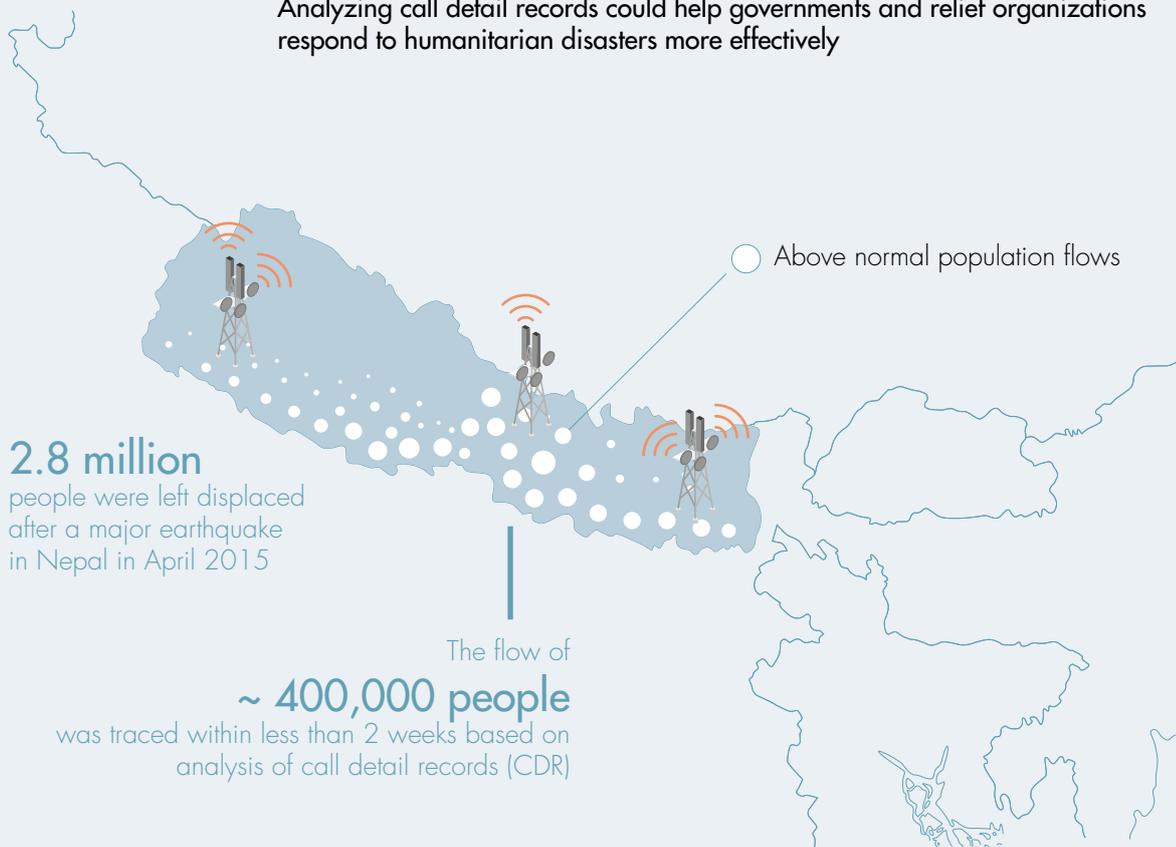
Continuously **analyzing** these data to uncover big-picture trends and patterns of human trafficking, including regional flows and types of trafficking

Regularly **sharing** real-time intel with law enforcement, policymakers and financial institutions to enable disruption of incidents of human trafficking

Source: GMDAC/McKinsey, based on material from the ILO and Walk Free Foundation, US State Department and National Human Trafficking Hotline

EXHIBIT 11

Analyzing call detail records could help governments and relief organizations respond to humanitarian disasters more effectively



Sudden impact disasters or conflicts often result in the displacement of large numbers of people. Between 2008 and 2015, an annual average of about 26 million people have been displaced due to natural hazards. In 2016, about 7 million people were displaced by conflict.

In April 2015, a severe earthquake hit Nepal (7.8 magnitude), leaving about 2.8 million people internally displaced.

The Sweden-based non-profit organization Flowminder was able to trace the flow of about 400,000 people within less than two weeks in the aftermath of the earthquake by analyzing call detail records (CDR).

How data adds value

Collecting call detail records (CDR) to provide detailed spatiotemporal estimates of population displacement and movement, while safeguarding customers' right to privacy

Analyzing the magnitude and direction of people flows almost in real-time, e.g. in the aftermath of disasters or sudden outbreaks of conflict

Providing relief organizations with estimates of population movement to enable them to provide humanitarian assistance in timely fashion. **Deploying** human resources in line with people flows to optimize processes, e.g. catering to basic needs

1 De-identified call detail records contain time and associated cell tower of calls and text messages, allowing the analysis of mobility patterns

Source: GMDAC/McKinsey, based on material from the Internal Displacement Monitoring Centre, USAID and Flowminder

Reduce human rights violations: E.g. share of migrants exposed to human rights abuses, with granularity on the form of abuse (e.g. trafficking, violence, gender-based violence), victim profile (e.g. gender, age) and circumstances (e.g. geography, route, channel of coercion) can indicate where and at whom interventions should be targeted.

Maintaining border security:

Improve border-control efficacy: E.g. estimates on the count of irregular entrants by entry route can highlight which border sections require increased security.

Reduce human smuggling: E.g. incidence of smuggling by route, method of entry, and information on smuggling practices and organizations can facilitate law enforcement efforts on detection and prevention.

F – ARRIVAL

Why it matters

Upon arrival in their destination country, irregular and forced migrants often have limited capacity to fulfil their most immediate needs. For host countries, receiving migrants and **addressing their basic needs** can be a considerable, resource-intensive task if not managed well. In 2016, EU countries, on average, incurred a fiscal cost equivalent to about 0.2 per cent of GDP to provide initial support to asylum seekers, such as food, shelter and medical services.⁵⁷ However, such cost burdens can spike with the arrival of large waves of asylum seekers – for example, Sweden’s spending on catering to asylum seekers’ basic needs increased from about 0.3 per cent of GDP to about 1.0 per cent of GDP from 2014 to 2016,⁵⁸ given the increased inflow of asylum seekers over this period.

Orderly registration and efficient asylum processes^{xxxii} are necessary to process migrants in a timely manner, as arriving migrants can face a lengthy registration and application process before host countries determine the migrants’ status. The admission of large numbers of asylum seekers can exacerbate the pressure on a country’s capacity to register asylum seekers and process their applications. At the end of 2016, 52 per cent of Europe’s 2015–2016 asylum applicants had decisions still pending, given the influx of 2.5 million asylum seekers to the continent over this period.⁵⁹ Compounding to this is the need for orderly processing and effective decision-making to reduce the risk of error (e.g. duplicate registrations) and improve the accuracy of decision-making. In the United Kingdom in 2016, 42 per cent of appeals against asylum application refusals were successful.⁶⁰

XXXII Once asylum seekers file an application for asylum, they are considered “regular migrants.” This report nonetheless addresses this topic in the section of “irregular migration” to provide a consolidated overview of the journey of “irregular” migrants.

In destination countries, it is the urban areas that tend to attract the overwhelming majority of migrants. In the United Kingdom and Canada, for example, 95 per cent of immigrants live in cities.⁶¹ Countries have a role to play in ensuring a **balanced geographic allocation** of migrants nationwide to lay the foundations for successful integration while preventing disproportionate burdens on the public resources of individual municipalities. There are trade-offs to be considered. For example, areas with high availability of housing might not offer sufficient job opportunities or educational offerings and vice versa. A distribution strategy mindful of the trade-offs of geography and concentration can help ensure migrants have the best chance of successful inclusion in their new homes.

The potential value at stake – selected examples

In 2016/17, German authorities started using centralized databases and modern technologies to reduce the number of duplicate registrations of incoming migrants. Tools analyzing biometric data have become increasingly sophisticated: according to the US National Institute of Standards and Technology, the best computerized systems in fingerprint and face recognition are more than 99 per cent accurate.⁶² The accuracy of data analysis can enable the number of duplicate registrations of incoming migrants to fall significantly.

Better data on migration flows and in-country arrival can also improve the capacity of governments and relief organizations alike to cater to basic needs and better manage registration and asylum procedures. In the latter half of 2015, both the British Red Cross and the University of Leiden Centre for Innovation developed models to anticipate refugee flows in Europe. Based on UNHCR data, these models were successful in predicting refugee flows one day in advance with a fair degree of accuracy. While still insufficiently precise to inform policy interventions, these initiatives are promising examples of how governments and relief organizations could be assisted in their efforts to provide timely and sufficient aid.

How data can help capture this value

Catering to basic needs:

Ensure adequacy of supply: E.g. migrant-inflow forecasts compared with capacity of housing and basic supplies (as measured by, e.g. units shelter available, average caloric intake required, numbers of doctors per 1,000 people required) can inform planning related to the stock and geographical allocation of resources to ensure adequate supply.

Maintain cost-effectiveness: E.g. cost comparisons on the average cost of shelter, food, and medical services per migrant with best-practice benchmarks can show spending efficiency. Better demand forecasting can support adequate planning (e.g. less vacancies or waste) and reduce purchasing prices (e.g. through increased lead times).

Guaranteeing orderly registration:

Streamline asylum registrations: E.g. comprehensive registration once upon arrival and a single centralized database for the collected data (available to all relevant parties involved in the asylum and integration process) can eliminate multiple collections of the same data and resulting inconsistencies. Verification systems using biometric data (e.g. finger prints, face recognition) can help identify duplicate registrations.

Verify registration details: E.g. registers of non-asylum seekers shared by countries of origin and IT-supported validation of other data that corroborates personal details provided by registrant (e.g. transliteration of a name in a given language) can help validate the accuracy of applicant information provided.

Ensuring efficient asylum processes:

Improve process efficiency: E.g. lead time per process step and waiting times between process steps can pinpoint bottlenecks and underlying reasons, enabling targeted initiatives to improve the process (e.g. reallocation of resources, adjustment of process set-up).

Facilitate planning: E.g. forecasts of irregular migration flows (by country of origin) can support decisions on when and where additional capacity and resources (e.g. interpreters for certain languages, personnel reviewing asylum applications) should be allocated to ensure timely processing of asylum applications.

Enhance decision-making efficacy and reduce error: E.g. evidence on the share of decisions that were overturned in appeal, broken down by type of case or applicant, can indicate how accurately asylum decisions are made and where additional interventions, e.g. training or clearer guidelines, might be needed.

Planning balanced geographic allocation:

Conditions for successful integration vary from one location to another, e.g. job opportunities might be scarce in areas which provide sufficient affordable housing options. Resettlement strategies need to manage these kinds of trade-offs to maximize migrants' chances for successful integration.

Support successful labour market integration: E.g. employment rate or number of unfilled vacancies per occupation for each region mapped against immigrant skill profiles can guide decisions that maximize odds of effective integration into the domestic labour market.

Ensure adequate capacity: E.g. regional metrics on housing supply (e.g. number of housing units available for rent) and capacity of basic services (e.g. number of classroom seats available or number of doctors per 1,000 inhabitants) indicate the ability of various regions to absorb additional newcomers.

G – RETURN AND REINTEGRATION

Why it matters

Asylum seekers who have been denied asylum status and certain categories of irregular migrants (e.g. those who remain in-country with an expired visa) are under legal obligation to **return** to their country of origin, but many never do. In 2016, nearly half of the asylum applications received in Europe were refused.⁶³ About 490,000 individuals were ordered to leave, yet only about 225,000 persons returned to a third country that year^{xxxiii} (with voluntary returns accounting for 40–60 per cent of all returns from the EU).^{xxxiv, 64, 65}

Limited returns can be attributed to a number of factors, including limited assisted voluntary return programmes and counselling, information gaps (e.g. related to documentation), and a lack of collaboration/coordination between various authorities, and between host countries and countries of origin.

Returns can furthermore entail significant cost burdens. For example, the Reintegration and Emigration Programme for Asylum Seekers in Germany – available to migrants regardless of their status – covers transportation costs for voluntary return journeys and additional travel assistance;⁶⁶ the programme Starthilfe Plus offers additional monetary support for voluntary return.⁶⁷ Nevertheless, the cost of forced deportation is often considerably higher, considering the resources and coordination required between a complex network of stakeholders, including the police, courts and foreigner registration offices.

Reintegration is critical in optimizing migrants' chances of a successful and sustainable return to their home country. In 2016, the International Organization for Migration (IOM) provided almost 100,000 migrants with support in the form of subsistence allowances, accommodation, medical support or economic livelihood support through its Assisted Voluntary Return and Reintegration programme.⁶⁸ Country governments also provide various types of reintegration support, for example, the Swedish government offers approximately EUR 3,200 per adult (up to a maximum of EUR 8,100 per family) in reintegration assistance.⁶⁹ Reintegration support is critical to address the considerable challenges faced by migrants upon return to rebuild their livelihoods. Reintegration also must be seen from the perspective of the receiving communities and their absorption capacity.

XXXIII There is limited transparency on the exact number of returns. Frontex reports about 175,000 effective returns from the EU to a third country in 2016.

XXXIV Based on Eurostat data for 2016, the share of voluntary returns to third countries from the EU is 60 per cent of all returns (weighted average). Based on Frontex data for 2011–2015, the share of voluntary returns to third countries is 40–50 per cent each year.

The potential value at stake – selected examples

Assisted voluntary return of irregular migrants is in the interest of countries and migrants alike. The capacity to collect and verify data on migrants' needs and conditions in their respective countries of origin can inform the design of assistance programmes and thereby promote a humane and sustainable voluntary return. Voluntary returns are considered to be not only more humane but also more cost-effective than forced returns. Exhibit 12 shows an example of cost savings that could have accrued had voluntary returns been more effective in the past.

How data can help capture value

Managing effective and sustainable return of irregular migrants:

Design effective return policy: E.g. share of refused asylum seekers who return to their country of origin by background (e.g. demographic profile, country of origin), return type (e.g. forced versus voluntary) and degree of assistance provided (e.g. monetary, counselling) can show what works and thus inform the design of return policies tailored by migrant group.

Support enforcement of residence law: E.g. reliable data on the registered residence of irregular migrants can facilitate the implementation of return policies.

Ensure cost-effectiveness of returns: E.g. average cost per return case (forced and voluntary) and breakdown of cost components for each can inform return policy and pinpoint areas with potential to be streamlined; comparisons with average cost per irregular migrant can highlight whether further incentives to encourage return economically make sense.

Supporting successful reintegration:

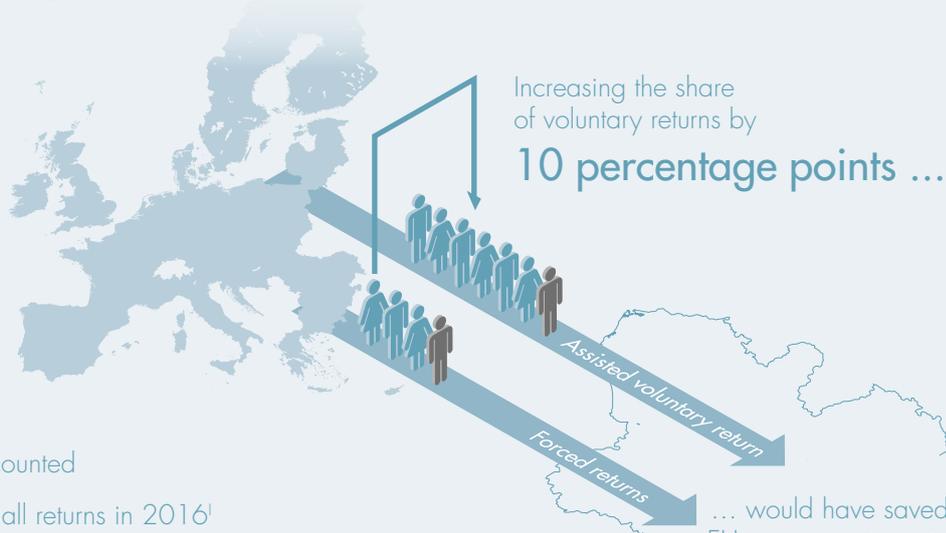
Drive positive reintegration outcomes: E.g. returnee outcomes (economic, social, civic) and re-emigration rates classified by amount and type of reintegration support provided (e.g. cash versus in kind) can give insight into the most impactful interventions and inform policy adaptations accordingly.

Tailor reintegration assistance by recipient: E.g. profiles of returnees, including years spent in host country, demographic background and employment status can help uncover key factors that determine the probability of successful reintegration and how reintegration support can best be tailored by recipient type.

Ensure cost-effective reintegration: E.g. average cost of various forms of reintegration support compared with efficacy of each can highlight which types of reintegration support are most impactful and should be pursued.

Exhibit 12

Better tailoring voluntary return assistance to migrants' needs could increase share of voluntary over forced returns and reduce cost for return efforts. A 10-percentage point increase in AVR over forced returns would have saved EU governments up to EUR 350 million for the years 2008–16



Voluntary returns accounted for about **60%** of all returns in 2016^I

... would have saved EU governments up to **EUR 350 million** for the years 2008–16

In 2016, approximately 225,000 irregular immigrants returned from EU Member States to third countries. Voluntary returns accounted for on average 40–60 percent of all returns from the EU.^{I, II}

Voluntary returns (available to regular and irregular migrants) are widely considered the more humane and preferred type of return and are also considerably cheaper: while reliable numbers for the entire EU on the cost of returns are missing, an assisted voluntary return from Germany is estimated to cost on average EUR 800 less than a forced return.^{III}

Assuming a cost difference of EUR 800–2,000 between assisted voluntary and forced return from the EU, Member

States would have saved EUR 140–350 for the years 2008–16 had the share of assisted voluntary returns on average been 10 percentage points higher.

How data adds value

Collecting data on origin of irregular migrants ordered to leave the country, data on living conditions in countries of origin and data on benefits for irregular migrants in host countries

Analyzing migrant profiles, drivers for migration and migrants' needs

Structuring tailored assistance to enable voluntary return. **Providing** targeted return counseling and assistance for the reintegration process

- I Based on EUROSTAT data and additional country sources, the share of voluntary returns to third countries from the EU was approximately 60 per cent of all returns in 2016 (weighted average).
- II Based on Frontex data for 2011–15, the share of voluntary returns to third countries is approximately between 40–50 per cent for each year
- III Only direct cost taken into account; administrative cost not included

Source: GMDAC/McKinsey, based on material from Eurostat, IOM, the United Kingdom of Great Britain and Northern Ireland Home Office and the German Federal Ministry of the Interior

06

Designing country migration
data strategies to drive real-
life benefits

Chapter 05 established a vision of how potential economic, social and humanitarian values can be achieved through targeted use of migration data. This chapter introduces a four-step approach to develop country-specific data strategies designed to capture this value and create buy-in with relevant stakeholders.

Each country needs to develop a tailored strategy for data collection, analysis and usage that reflects its objectives and priorities. Countries need to translate such a strategy into an investment case that showcases the potential value and considers the needs and objectives of all relevant stakeholders.

In practice, there are four steps each country needs to take:

1. Identify and prioritize relevant value dimensions
2. Identify key data gaps and assess the feasibility of data collection and analysis
3. Develop an investment case tailored to relevant stakeholders
4. Define a road map for implementation

The sections below outline each step in more detail.

1. Identification and prioritization of relevant value dimensions

As a first step, countries need to identify and prioritize the value dimensions most relevant to them. Each country's migration profile is different, and its priorities across the various value dimensions will differ correspondingly. The elements of a country's migration profile include (1) whether it tends to send and/or receive migrants, (2) the overall income level (low, middle or high), and (3) whether its attention is focused on regular and/or irregular migration. Exhibit 13 shows four examples of countries with different contexts and priorities.

Country A – Low- or middle-income country with a large diaspora abroad. Country A may see its strategic priorities in emigration and development. Its data strategy might then seek to analyze the reasons of why people with relevant knowledge and skills have emigrated and what incentives could encourage them to potentially return or contribute to economic development at home from abroad.

Country B – Low- or middle-income country of transit that experiences a considerable degree of irregular migration. Country B may prioritize maximizing the safety of migrants on their journey and the integrity of their borders as well as efficacy of arrival and return processes. Collecting and analyzing data on both migration flows and the processes currently in place could help Country B to cooperate with relief organizations to provide the appropriate level of humanitarian assistance in a timely fashion.

Country C – High-income country that primarily receives irregular migrants. In addition to improving journey, arrival and return processes, Country C may look to optimize its integration policies for regular migrants, particularly in the field of education. Data on its current performance in relevant subdimensions – such as access to and the affordability and quality of education – may guide Country C to implement policy interventions where they are most needed.

Country D – High-income country that seeks to actively promote immigration. Country D may see its strategic priorities in facilitating effective immigration processes and improving its integration policies, specifically in terms of labour-market integration. Country D may adapt its data strategy accordingly and analyze current labour-market shortages on a national, regional and local level to identify and attract groups from abroad that could fill these gaps.

2. Identification of key data gaps and assessment of feasibility of data collection and analysis

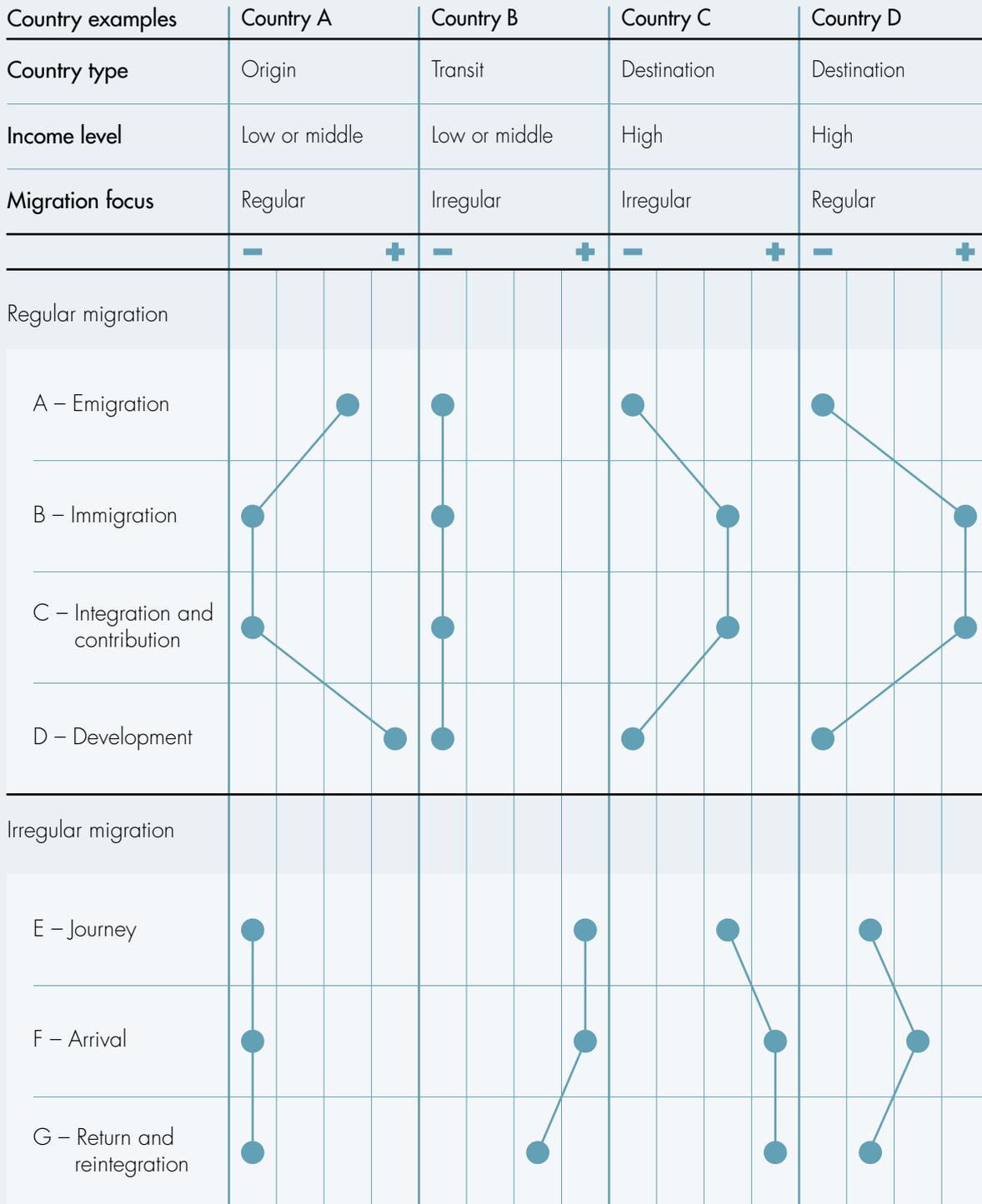
Prioritizing the data needs that support the desired migration-related policy outcomes could help countries identify key data gaps and assess the overall feasibility of collecting and analyzing the necessary data. Assessing the required data needs in terms of feasibility would then determine which data to select for future collection and analysis. Three criteria are key to assess feasibility:

Cost: Costs are incurred across the entire process, from collection (e.g. the cost per question in a household survey or the cost for a national census) through the establishment of necessary IT infrastructure to building required analytical capabilities within a given country. Costs not only differ by type of data source, but may also vary significantly from country to country: the cost of a national population census, for example, can range from USD 0.40 per capita in India to USD 42 per capita in the United States.⁷⁰

Time: Data also differs in the amount of time it takes to collect and analyze them and how regularly they can be updated. Data from censuses, for example, are particularly time-consuming, and many countries collect census data only every 5–10 years; it took about two years to release all results from the 2010 population census in the United States.⁷¹ Data from other sources can be collected and analyzed more quickly, particularly data that is captured digitally and can be collected in real time.

EXHIBIT 13
Four examples of countries and their priorities

+ More relevant - Less relevant



Need for collaboration: Feasibility also needs to be assessed in terms of the need for collaboration between stakeholders. Data collection and analysis is often more challenging if compiled and processed in a multi-stakeholder system. Data sharing can also be important between governments. A promising example is the VRS-MSRC^{xxxv} – an initiative developed by UNODC^{xxxvi} with law enforcement authorities from Asia, Europe and North America to collect and share data on irregular migration and migrant smuggling.⁷² Within the Schengen zone, Member States exchange data through the central visa information system, which is linked to IT systems within each country.⁷³ Finally, collaboration on data collection and analysis might be required even within a country. As migration is a part of multiple policy areas, data often needs to be shared between national, federal and municipal agencies as well as across different functional departments.

3. Development of an investment case tailored to relevant stakeholders

The considerations regarding value and cost then need to be drawn into an investment case that encourages investments in data and implementation of data strategies. An investment case needs to cater to a range of stakeholders (e.g. governments, funding entities, private sector organizations) who may have different objectives and priorities. It therefore needs to be tailored to relevant stakeholders and reflect their individual needs and objectives.

There are three stages to create a tailored investment case:

Identification of relevant stakeholders: Countries need to identify stakeholders who could potentially support funding and implementation of data strategies. These could be representatives of financing entities as well as organizations and individuals responsible for data planning and implementation. Potential stakeholders may be found among the different branches of government, in international organizations, in private sector organizations or in civil society.

Analysis of objectives and motivations: Countries need to understand which are the most relevant topics for the identified stakeholders and analyze their distinct objectives and motivations. Factors to be considered include the context of the country (e.g. recent inflow of large number of migrants, large diaspora abroad), main objectives of the stakeholders' respective offices (e.g. economic growth, bettering migrants' lives) as well as their personal motivations.

Development of a tailored investment case: Based on the previous analyses, countries need to develop an investment case which addresses key concerns of the relevant stakeholders and emphasizes how their interests can be served through data investment and implementation of data strategies. The case needs to include a clear vision for the future as well as an estimate of the investment required and data's potential value ("return on investment").

XXXV Voluntary Reporting System on Migrant Smuggling and Related Conduct.

XXXVI United Nations Office on Drugs and Crime.

4. Definition of a road map for implementation

Finally, each country needs to develop a road map for implementation, defining the necessary steps to put their data strategy into action. Key elements include:

Buy-in from relevant stakeholders: Use investment case to communicate benefits of data investments, create buy-in among relevant stakeholders and secure funding/resources.

Design of “proof-of-concept” pilots: Design pilots for prioritized initiatives. Plan roll-out of pilots, including rapid test-and-learn mechanisms, to get an early indication on projected success and required adaptations.

Prioritization of a set of actions: Plan and prioritize required actions to launch implementation (e.g. building required IT infrastructure, talent acquisition/migration, building capabilities, and driving cultural change, preparation and launch of data collection, as well as analysis and sharing).

Identification of key success factors: Identify factors critical for successful implementation (e.g. sponsorship of relevant stakeholders, clearly defined governance structure and accountabilities, required expertise and external partnerships, convincing vision and communication plan) and assess potential risks.

Definition of adaptive mechanisms: Define “stage gates” for evaluation of progress and impact, including key performance indicators, to allow for early course correction during rollout.

07

Advancing the migration data agenda on global, regional and national levels

Dedicated support is needed to enable development of value-driven migration data strategies on global, regional and national levels. Governments are presented with a historic opportunity to tackle migration data challenges given two landmark developments at the global level.

In context of the 2030 Agenda for Sustainable Development, countries have agreed on a set of Sustainable Global Development Goals (SDGs). These goals represent a commitment by countries to promote development and report progress to the global community. The SDGs constitute a relevant step towards better migration data: as some of them include explicit references to migration, countries are required to report on migration-related topics and therefore need to improve their capacity to collect and analyze associated data.^{XXXVII}

Additionally, the negotiations leading towards the adoption of a global compact for safe, orderly and regular migration (GCM) constitute a unique opportunity to strengthen what has already been agreed upon in the SDGs and advance the migration data agenda further.

Targeted initiatives are required on the global, regional and national level to build on the momentum and support the articulation of migration data strategies that deliver concrete payoffs.



Provide global support on how to get started on the migration data agenda

Establishing a **global support platform (“migration value navigator”)** could help national and international stakeholders identify, compare and prioritize the potential value of improved migration data across countries, regions and different dimensions of migration (in a structured manner aligned with the country’s SDG strategies and value dimensions outlined in Chapters 04 and 05).

Additionally, the platform could consolidate global best practices per value segment on how to capture the corresponding value. It would also provide access to relevant experts who could give initial guidance on where and how to start when developing an effective value-driven migration data strategy.

XXXVII The SDGs include explicit references to the need to enhance capacity-building support to developing countries, and to increase significantly the availability of high-quality, timely and reliable disaggregated data under goal 17.18.

Such a global tool could be an integral part of the GCM process and the following actionable commitments by offering an approach built on data. It would constitute a relevant starting point for national and international stakeholders seeking an evidence-based approach to improving migration outcomes and could point towards relevant regional and national initiatives as the ones described later in this chapter.

What it is: The “migration value navigator” would comprise a user-friendly online platform on which policymakers and experts are able to view estimates of the potential economic, social or humanitarian value that could be unlocked by migration data (on global, regional and country levels and across various dimensions). Stakeholders could identify and prioritize data requirements accordingly.

In addition, the platform would provide access to proven, best-practice examples as well as relevant network contacts. It would be supported by a group of experts who provide methodical assistance and guidance on designing value-driven data strategies. Exhibit 14 shows an illustrative depiction of what a corresponding tool could look like.

Key benefits include:

Effective support to identify value and prioritize migration data needs accordingly (based on a comparable structure of value dimensions)

Better knowledge sharing through network building and best-practice exchange on how to fill data gaps and design interventions to achieve the identified value

Direct assistance to national and international stakeholders through a global pool of experts providing guidance on how to start a value-driven data strategy.

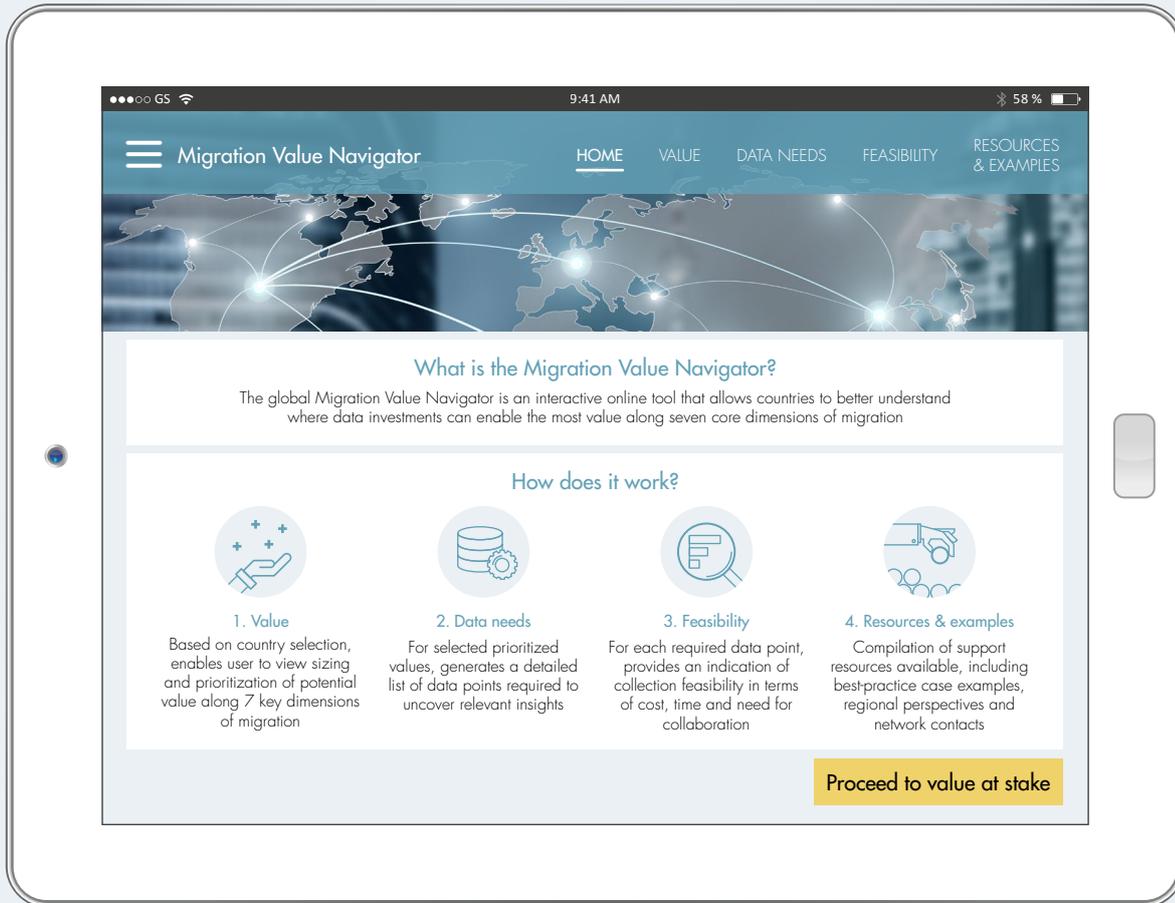


Enable collaboration on a regional level

Most migration occurs within regions, and therefore countries need to cooperate at the regional level to manage migration effectively. Establishing **regional migration data observatories** would create exchanges between various sources across national borders and increase

both transparency and the ability to support evidence-based policy decisions within a given region. A known comparable initiative is the Continuous System on International Migration in the Americas (SICREMI, its acronym in Spanish). SICREMI contributes to the monitoring of regional migration flows in the Americas and reports on migration policies and programs in the region. Compiling and sharing migration data at the regional level, for example, through a dedicated regional data portal, could be a pragmatic first step towards establishing regional observatories.

EXHIBIT 14
Illustration of a "Migration Value Navigator"



What it is: Collaborative regional observatories which use various regional sources, create transparency on migration and support policy decisions in their respective regions. Responsibilities would include (1) drawing on available information from different countries, facilitate data exchange and create transparency on regional migration trends (e.g. flows, migration drivers, migrant needs). (2) They would provide support to policymakers to implement value-driven interventions. Additionally, (3) they would work towards improved data quality (e.g. establish common standards within a respective region) and (4) create a common understanding of mutual benefits originating from migration.

Key benefits include:

Transparency on regional migration trends based on linking various sources across national borders and better data exchange

Support for policymakers to implement value-driven interventions at regional levels

Improved data quality and intra-regional cooperation, enabling better understanding of mutual benefits originating from migration.



Support national data transformations

Individual countries need support to take a value-driven perspective on migration data and to enable them to perform subsequent migration data transformations. A comprehensive national approach to migration data will enable countries to close data gaps prioritized according to the specific economic, social, or humanitarian value at stake. Countries who aspire to take a leading role in pioneering this approach could serve as success cases. They would encourage value-driven investments in other geographies – thereby leading the value-driven migration data evolution. Transformation may also take place at the sub-national or local level. Most migrants live in cities, and local governments often pioneer new policy solutions.

What it is: Support for countries to develop and implement value-driven migration data strategies. Assistance could be provided in the initiation phase (e.g. by holding data strategy workshops with relevant leaders and experts to prioritize value and identify key data gaps) as well as holistically throughout a data transformation (e.g. by supporting strategy development, articulating an investment case, creating an action plan and facilitating implementation).

Key benefits include:

Identification of value and high-priority data gaps (i.e. with significant potential to improve migration outcomes)

Buy-in from governments and donors through articulation of clear investment case for data

Support in closing data gaps through focused interventions

Development of concrete measures to achieve identified value based on new evidence-based insights

Better articulation and communication of the economic, social, humanitarian and political value of migration to national, regional and global stakeholders.

Exhibit 15 gives an overview of the proposed initiatives to help drive the migration data agenda.

EXHIBIT 1.5

Summary of initiatives to advance the migration data agenda

	What it is	Key benefits
 <p>Global Develop global “migration value navigator”</p>	<p>User-friendly platform allowing to</p> <ul style="list-style-type: none"> – Assess value across countries along comparable dimensions – Identify most critical data priorities – Draw on best-practice examples – Benefit from expert assistance 	<p>Effective support to identify value and prioritize migration data needs</p> <p>Better knowledge sharing through best-practice exchange and network building</p> <p>Direct expert assistance to national and international stakeholders</p>
 <p>Regional Establish regional migration observatories</p>	<p>Collaborative regional observatories</p> <ul style="list-style-type: none"> – Link various sources and create transparency on regional migration trends – Support value-driven policy decisions – Improve data quality and create understanding of mutual benefits 	<p>Improved transparency on regional migration trends</p> <p>Support for policymakers to implement value-driven interventions</p> <p>Improved data quality and intra-regional cooperation</p>
 <p>Country level Support national data transformations</p>	<p>A 1- to 2-day data strategy workshops with relevant leaders and experts</p> <p>B Full data transformation (i.e. develop strategy, articulate investment case, close data gaps, develop measures to achieve value)</p>	<p>Identification of value and data gaps</p> <p>Buy-in from governments and donors through a clear investment case for data</p> <p>Support in closing data gaps</p> <p>Development of measures to achieve value</p> <p>Better articulation and communication of the value of migration</p>

—

This is the right moment to invest in better migration data – not for its own sake, but because it pays off. Two global developments present countries with a historic opportunity to advance the migration data agenda and make crucial investments in data. First, countries have joined together and started negotiations leading towards the adoption of a global compact for safe, orderly and regular migration to improve cooperation and migration governance. Second, countries have also committed to a number of migration-relevant SDGs which require many countries to invest in better data for SDG follow-up and review. Both processes provide governments with renewed momentum to invest in data at the local, national, regional and global level.

Rather than just repeating calls for improving data and deploring its limitations, this report has illustrated what data can deliver. The report has highlighted where data can make a difference. As the many case examples in this report have shown, data can enable policymakers to protect more migrants in vulnerable situations, fill labour market shortages and improve integration, manage asylum procedures more effectively, ensure the humane return of migrants ordered to leave or increase remittance flows. While data can leverage benefits for high-income countries of destination, the investment case for better data is particularly relevant for low-income countries which have the least available data and lower capacity to collect or analyze it.

Data alone certainly does not guarantee good policies. However, data is essential for designing, implementing and evaluating effective policies that produce large economic, social, and humanitarian benefits. Migration data is “more than numbers.” It can produce real-life results for migrants and non-migrants, governments, international organizations and the private sector alike.

08

Appendix

DETAILED BREAKDOWN OF THE FRAMEWORK FOR VALUE OF MIGRATION DATA

The following table elaborates on the framework presented in chapter 04 of this report. The framework was developed to identify in which areas migration data can deliver real-life benefits. The following list describes the particular insights that are needed and the data that is required to achieve them. The list is intended to provide policy makers with a comprehensive set of options for potential investments in migration data in different policy areas.

REGULAR MIGRATION

A – Emigration

- | | | |
|----------------------|----------|-------------------------------------------------------------|
| Value targets | 1 | Balancing potential adverse effects of excessive emigration |
| | 2 | Preventing economic and labour exploitation |

B – Immigration

- | | | |
|----------------------|----------|------------------------------------------|
| Value targets | 3 | Attracting relevant target groups |
| | 4 | Ensuring efficient immigration processes |

C – Integration and contribution

- | | | |
|----------------------|-----------|---------------------------------------------------------|
| Value targets | 5 | Improving local language acquisition |
| | 6 | Supplying decent, affordable housing |
| | 7 | Ensuring access to quality healthcare |
| | 8 | Providing relevant education or training |
| | 9 | Optimizing employment outcomes and improving well-being |
| | 10 | Fostering social inclusion |
| | 11 | Driving civic engagement |

D – Development

- | | | |
|----------------------|-----------|--------------------------------------------------------------------|
| Value targets | 12 | Regaining human capital and encouraging knowledge transfer |
| | 13 | Facilitating the flow of remittances, trade and foreign investment |
-

IRREGULAR MIGRATION

E – Journey

- Value targets**
- 14 Ensuring migrant safety and protection
 - 15 Maintaining border security

F – Arrival

- Value targets**
- 16 Catering to basic needs
 - 17 Guaranteeing orderly registration
 - 18 Ensuring efficient asylum processes
 - 19 Planning balanced geographic allocation

G – Return and reintegration

- Value targets**
- 20 Managing effective and sustainable return
 - 21 Supporting successful reintegration

EACH VALUE TARGET CAN BE BROKEN DOWN INTO:

Underlying value dimensions

Required insights to capture value

Priority data needs.

REGULAR MIGRATION

A – Emigration

Value dimension	Potential insights	Key data required
Value target 1 – Balancing potential adverse effects of excessive emigration		
Prepare emigrants for employment abroad	Which occupational gaps in global market could be filled by the domestic workforce?	<p>Stock and profiles of domestic labour</p> <ul style="list-style-type: none"> — Number of professionals by occupation/skill level <p>Occupational gaps worldwide</p> <ul style="list-style-type: none"> — Occupational gaps by sector/skill level/destination country
	Which kind of training/ education programs could prepare domestic workers for the global market?	<p>Domestic opportunities for education and skills acquisition</p> <ul style="list-style-type: none"> — Number of relevant education and training courses by profession/skill level/geographic unit
Identify and respond to excessive brain drain	In which areas does skilled emigration occur excessively?	<p>Share of population that emigrate and return by (per cent):</p> <ul style="list-style-type: none"> — Factors mentioned above <p>Number of jobs unfilled by skill level/occupation and unit of geography</p>
	Which groups are likely to emigrate, where to, and for what reason?	<p>Share of population that emigrate by (per cent):</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status¹) — Educational attainment — Skill profile/occupation — Country of destination — Unit of geography of origin — Reason for leaving (economic, family, quality of life) — Number of family members in country of origin — Number of family members in country of destination — Wage differential in country of origin versus country of destination
	Which cohorts of high-skilled citizens should be encouraged to remain in-country?	<p>Number of unfilled jobs by skill level/occupation and unit of geography</p> <p>Analysis of potential incentive schemes (e.g. tax breaks)</p>
Encourage circular migration	What are the characteristics of temporary migrants?	<p>Profiles of temporary migrants by:</p> <ul style="list-style-type: none"> — Host country — Occupation — Skill level — Wage differential

¹ Socioeconomic status refers to income group and level of education.

Value dimension	Potential insights	Key data required
	How can emigrants be encouraged to return?	Reasons for leaving country (economic, family, quality of life) Number of family members in origin and host country Wage differential abroad

Value target 2 – Preventing economic and labour exploitation

Focus interventions on relevant corridors and channels	What is the magnitude of worker-borne recruitment costs along each corridor and channel?	Recruitment costs per migrant by: <ul style="list-style-type: none"> — Country of origin — Country of destination — Channel of recruitment (e.g. company direct hire, recruiting agency, NGO) — Per cent of costs borne by employer versus employee
Protect migrant in vulnerable situations	Which migrant groups are particularly vulnerable?	Recruitment costs per migrant by: <ul style="list-style-type: none"> — Country of origin — Country of destination — Demographics (age, gender, socioeconomic status¹) — Skill level/occupation — Education level of migrant — Duration of employment contract — Years of previous foreign employment experience — Per cent of migrant salary — Channel of recruitment (e.g. company direct hire, recruiting agency, NGO) Per cent of recruitment costs financed by debt
Target relevant cost reductions	What are potentials for recruitment cost reductions?	Recruitment costs broken down by: <ul style="list-style-type: none"> — Type of cost (e.g. documentation, medical examination, recruitment fees, transportation, training, insurances) — Country of origin — Country of destination

Value dimension	Potential insights	Key data required
Improve employee protection	Are migrants protected by employment standards in various countries of destination?	<p>Per cent of migrants contractually protected (e.g. decent wage, capped working hours per week, paid leave, decent working conditions)</p> <p>Above, broken down by:</p> <ul style="list-style-type: none"> — Country of origin — Country of destination — Skill level/occupation — Sector of employment (e.g. informal employment, public sector) <p>Frequency of fatal and non-fatal occupational injuries</p>
	Which employees are particularly vulnerable?	<p>Above, broken down by:</p> <ul style="list-style-type: none"> — Age — Gender — Type and circumstance of exploitation
Optimize efficacy of interventions	Which interventions to reduce remittance costs and ensure employee protection are most effective?	<p>Per cent reduction in recruitment costs by type of intervention (e.g. regulation of recruitment agencies)</p> <p>Per cent of migrants contractually protected by employment standards (e.g. building cooperation with destination countries)</p>

Value dimension	Potential insights	Key data required
Value target 3 – Attracting relevant target groups		
Develop target skill profiles	What are the relevant target groups, based on local labour market gaps/needs?	By time of year: <ul style="list-style-type: none"> — Employment rate by skill level/occupation and geography — Number of unfilled jobs by skill level/occupation and geography Skill level/occupation of native-born persons and existing migrants Educational attainment of native-born persons and existing migrants Age structure of population
Focus outreach on locations with relevant skill groups	Where are potential target groups located?	For each skill level/occupation for which there are local labour gaps, assessment of the below for all key emigrant countries worldwide: <ul style="list-style-type: none"> — Number of individuals with relevant qualifications — Employment rate — Number of unfilled job vacancies
Incentivize immigration	What are the target groups' priorities and how can they be best incentivized to immigrate?	For target group migrants that have already immigrated, by country of origin: <ul style="list-style-type: none"> — Wage level per skill profile/occupation — Type of support provided to immigrate
Optimize efficacy of engagement	How effectively are target groups engaged?	Number of applications received in each category of target group (e.g. by occupation, and by country of origin) Number of visitors to immigration websites by country of origin
Value target 4 – Ensuring efficient immigration processes		
Improve process efficiency	What are potential bottlenecks in the application process?	Average number of days between application submission and decision, by: <ul style="list-style-type: none"> — Type of permit (e.g. family reunification, employment) — Migrant country of origin Average number of days between application submission and decision <ul style="list-style-type: none"> — Number of process steps and average time per step — Average waiting time in-between each process step
	How cost-effectively are applications processed?	Average cost per application by type of application/permit

Value dimension	Potential insights	Key data required
Facilitate planning	How should capacity be planned to meet future immigration flows?	<p>Forecasts of number of migrants expected per time unit, broken down by:</p> <ul style="list-style-type: none"> — Type of permit — Migrant country of origin — Point of arrival <p>Processing capacity per time unit, e.g.</p> <ul style="list-style-type: none"> — Number of personnel per port of arrival — Number of days required to process each category of applications
Enhance communication efficiency	Are immigration guidelines clearly presented?	<p>Per cent of migrants applying for visas that are ineligible</p> <p>Number of portals/sources that need to be visited to gather all relevant immigration information</p> <p>Number of languages in which relevant immigration information is available</p>

Value dimension	Potential insights	Key data required
Value target 5 – Improving local language acquisition		
Stimulate participation	What share of migrants are aware of, enrolled in or completed a language course?	Participation and completion by unit of geography: <ul style="list-style-type: none"> — Per cent of migrants who are aware of language courses available to them — Per cent of migrants who are enrolled in language/culture courses — Per cent of enrolled migrants who complete course
Ensure timely availability	Is there an adequate supply of language/culture courses to match demand?	Availability by unit of geography: <ul style="list-style-type: none"> — Capacity of language/culture courses (student-teacher ratio) — Migrant population Demand by unit of geography: <ul style="list-style-type: none"> — Number of migrants that do not speak the local language — Number of migrants that seek to learn the local language Average waiting times before language class can be started
Ensure affordability	Are language/culture courses affordable? (Where not paid by the government)	By unit of geography: <ul style="list-style-type: none"> — Average cost per lesson — Average monthly salary of migrants Number of lessons required per month
Optimize learning formats	Are language courses effective in enabling language acquisition for migrants?	Per cent of migrants that reach language level of working proficiency by: <ul style="list-style-type: none"> — Learning format (e.g. online learning, in-person, degree of customization, e.g. by student educational background) — Demographics (age, gender, educational background, socioeconomic status, mother tongue) — Country of origin Average number of lessons/time taken to reach working proficiency: <ul style="list-style-type: none"> — Learning format (e.g. online learning, in-person, degree of customization, e.g. by student educational background) — Demographics (age, gender, educational background, socioeconomic status, mother tongue) — Country of origin

Value dimension	Potential insights	Key data required
Value target 6 – Supplying decent, affordable housing		
Ensure availability	Is there adequate supply of housing?	By unit of geography: <ul style="list-style-type: none"> — Housing capacity (number of housing units) — Per cent of units available for rent — Migrant population — Native population Average number of people per household per sqm
Establish equitable access	Is there fair access to housing?	Difference between migrants and native-born persons with regards to: <ul style="list-style-type: none"> — Housing application success rate — Home ownership ratio — Overcrowding rate — Amount paid per sqm
Improve affordability	Is housing affordable?	Number of housing units available for rent by rental cost category and by unit of geography Distribution of monthly salary of migrants Distribution of monthly salary of native-born persons Home ownership ratio
Deliver impactful outcomes	Is housing of an adequate standard?	By unit of geography: <ul style="list-style-type: none"> — Per cent of migrants versus native-born persons living in housing units that are structurally secure with adequate ventilation — Per cent of migrants versus native-born persons living in housing units that have basic amenities (e.g. water, heating, sanitation facilities, electricity) — Per cent of migrants versus native-born persons living in housing units that are overcrowded
	Are residential surroundings safe and adequate?	By unit of geography: <ul style="list-style-type: none"> — Average travel time to workplace for migrants versus native-born persons — Average travel time to public services, e.g. healthcare, schools, social and cultural facilities for migrants versus native-born persons — Crime rate

Value dimension	Potential insights	Key data required
	How are residences of migrants and native-born persons distributed?	By unit of geography: <ul style="list-style-type: none"> — Per cent of population comprised of migrants, by country of origin

Value target 7 – Ensuring access to quality healthcare

Ensure availability	Do migrants have ready access to healthcare services?	Average waiting time between healthcare sought and healthcare received by geography for migrants versus native-born persons Medical facilities (e.g. hospital rooms) utilization by geography Doctor utilization by area of specialty and by geography <ul style="list-style-type: none"> — Number of healthcare professionals per 1,000 residents
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Establish equitable access	Is there fair access to healthcare?	Per cent of migrants versus native-born persons reporting unmet medical needs Number of medical visits of migrants versus native-born persons, by: <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Educational attainment, e.g. health literacy, local language proficiency) — Country of origin — Form of healthcare coverage (e.g. out of pocket, voluntary insurance) — Type of visit (e.g. emergency, GP, specialist, preventative) — Years of residence — Legal status
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Improve affordability	Are healthcare treatments and medicines affordable?	Per cent of migrants versus native-born persons with healthcare coverage, by type (e.g. voluntary insurance, access to universal public healthcare system) that allows access to treatments and medicines Average annual amount spent on treatments for migrants versus native-born persons Average annual amount spent on medicines for migrants versus native-born persons Average annual income of migrants versus native-born persons
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Value dimension	Potential insights	Key data required
Deliver impactful outcomes	What are health outcomes?	Health outcomes (average life expectancy, mortality rates, maternal mortality rates, under-5 mortality rates, incidence of disease by type ²) of migrants versus native-born persons by: <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Personal characteristics (e.g. eating, smoking) — Average number of medical visits per year — Form of healthcare coverage (e.g. out of pocket, voluntary insurance)
Value target 8 – Providing relevant education and training		
Ensure availability	Do migrants have ready access to education or vocational training?	By unit of geography: <ul style="list-style-type: none"> — School capacity (number of student places) by year group — Classroom capacity — Vocational capacity (number of student places) by industry — Enrolment per cent of classes by year group — Enrolment per cent of vocational courses by industry — Migrant population — Per cent of migrant population in school versus training by demographics (age, gender, socioeconomic status) — Native population — Per cent of native population in school versus training by demographics (age, gender, socioeconomic status) <p>Average number of days from migrant arrival to first class</p>
Establish equitable access	Is there fair access to education and training?	Difference between migrants and native-born persons with regards to: <ul style="list-style-type: none"> — School/training enrolment rates — School/training completion rates
Improve affordability	Is education or training affordable?	By unit of geography: <ul style="list-style-type: none"> — Distribution of school fees per year — Distribution of annual salary of migrants and native-born persons

2 E.g. HIV, tuberculosis, malaria, hepatitis, cardiovascular disease, cancer, diabetes, respiratory disease

Value dimension	Potential insights	Key data required
Deliver impactful outcomes	What are learning outcomes?	<p>Per cent of migrants that are literate (language and numeracy) versus native-born persons</p> <p>Per cent of migrants versus native-born persons with educational attainment by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Level of education attained (e.g. primary, secondary, tertiary) — Average number of total years of schooling plus vocational training <p>Educational performance of migrants versus native-born persons by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Average grade received per year group
	Is the education or training provided relevant?	<p>Average number of days between leaving school and finding employment for migrants versus native-born persons</p> <p>Per cent of migrants versus native-born persons that are employed in a job related to their educational background</p>

Value target 9 – Optimizing employment outcomes and improving well-being

Maximize labour market participation	What is the migrant participation rate in the labour market?	<p>Share of migrants of working age</p> <p>Employment rate (migrants versus native-born persons) by skill level/occupation</p>
	What are the key factors that affect/determine the likelihood of adequate employment of migrants?	<p>Employment rate and average time to employment of migrants by:</p> <ul style="list-style-type: none"> — Demographic profile (e.g. gender and marital status, age) — Skill profile of migrants (e.g. skill level, literacy, language, years of work experience) — Occupation — Geography — Country of origin
	What portion of migrants are employed in the formal versus informal sector?	<p>Per cent of employed migrants with a formal employment contract:</p> <ul style="list-style-type: none"> — By demographic profile — Skill profile — Occupation — Geography — Country of origin

Value dimension	Potential insights	Key data required
	How secure are migrant jobs?	Per cent of migrants versus native-born persons on temporary contracts Per cent of migrants versus native-born persons employed in public sector
Improve productivity via skill-work matching	Where are there labour force gaps? For which skill level or type of job exists unmet demand?	Employment rate by skill level/occupation and geography Number of unfilled jobs by skill level/occupation, salary, and geography Skill level/occupation of migrants and native-born persons
	What is the cause for labour market gaps (e.g. job/skills mismatch, recognition of qualifications, lack of training)?	Per cent of migrants working in jobs below those corresponding to their skill level (versus native-born persons) Number of migrants with foreign qualifications that are not recognized (by occupation) and that are working outside their area of qualification Provision of training by skill level/occupation
Boost competitiveness of domestic economy	How do migrants contribute to innovation, new business formation and job creation in destination country?	Number of patents held per migrant Number of migrants that are entrepreneurs or small business owners Number of people employed by migrants
Enhance economic well-being	What is the average income and disposable income per migrant? What is the poverty rate?	By migrant versus native-born: <ul style="list-style-type: none"> — Share of people of working age — Average annual income per skill level — Average annual disposable income per skill level — Per cent below poverty line — Per cent living below 50 per cent of median income — Per cent covered by social protection systems
	What is the wage differential for migrants?	Average annual income by migrant versus native-born, per skill level: <ul style="list-style-type: none"> — In country of origin — In country of destination
	How much do migrants contribute to GDP and taxes?	By migrant versus native-born: <ul style="list-style-type: none"> — Annual income — Relevant tax rate

Value dimension	Potential insights	Key data required
Mitigate adverse effects on native-born persons	How does migration affect the employment of native-born persons?	Employment rate of native-borns and migrants prior to migrant inflow Employment rate of native-borns and migrants after migrant inflow
	How does migration affect the wage level of native-born persons?	Wage level per occupation prior to migrant inflow Wage level per occupation after migrant inflow

Value target 10 – Fostering social inclusion

Foster acceptance of diversity and minimize discrimination	To what extent is there discrimination against migrants in society?	Per cent of migrants who consider themselves members of a group that is/has been discriminated against on grounds of ethnicity, race or nationality Per cent of migrants who have experienced hate crime Per cent of native-born persons who perceive the impact or contribution of migrants to be negative
Protect vulnerable groups	Which groups are particularly vulnerable?	Above, broken down by: <ul style="list-style-type: none"> — Migrants' country of origin — Migrant profile (e.g. student, economic, asylum seeker) — Demographics (age, gender, socioeconomic status, level of education) — Unit of geography
Focus on key inequities	In which ways do effects of discrimination manifest most prominently?	Difference between native-born persons and migrants in: <ul style="list-style-type: none"> — Employment rate (controlled for factors such as educational attainment, age, gender) — Average annual income (controlled for factors such as educational attainment, age, gender) — Access to basic services, e.g. healthcare and education — Access to adequate affordable housing, e.g. per cent of housing applications accepted from migrants versus native-born persons — Political representation

Value dimension	Potential insights	Key data required
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Value target 11 – Driving civic engagement

Enhance civic participation	To what degree are migrants involved in various community groups?	Per cent of migrants engaged in community groups by: <ul style="list-style-type: none"> — Type of organization/association (size, membership by country of origin) — Migrant profile (e.g. demographics, language skills, socioeconomic status in country of origin) — Unit of geography
Ensure political voice and representation	How well is migrant population represented politically?	Per cent of political representatives by origin versus per cent of the migrant group of same origin as part of overall population
Encourage naturalization	Do eligible migrants naturalize?	Per cent of migrants eligible for naturalization Per cent of eligible migrants that naturalize Average time between point of eligibility and application for naturalization
	Which migrant groups are likely/unlikely to naturalize?	Above, broken down by: <ul style="list-style-type: none"> — Migrant profile (e.g. demographics, language skills, socioeconomic status) — Nationality
	What are the benefits of naturalization?	By eligible migrant who naturalized versus eligible migrant who did not <ul style="list-style-type: none"> — Fiscal contributions — Income — Employment rate

Value dimension	Potential insights	Key data required
Value target 12 – Regaining human capital and encouraging knowledge transfer		
Engage diaspora communities	What is the size and what are the characteristics of diaspora communities?	<p>Number of emigrants by:</p> <ul style="list-style-type: none"> — Country of destination — Unit of geography — Profile, e.g. demographics, education or training, skill profile, occupation (temporary/permanent) — Legal status/type of permit — Reason for emigration (e.g. education, economic opportunities, political or religious views, family reasons, quality of life)
Fill domestic labour market gaps	How can diaspora be leveraged to fill local labour market gaps?	<p>Number of diaspora members by skill profile (including educational/training background, occupation, areas and years of work experience)</p> <p>Mapping of occupations and skill levels in local labour market in which there is unfulfilled demand</p>
	What are the characteristics of diaspora that are likely to return?	<p>Breakdown of reasons for diaspora return (economic, social, political, family reasons) by:</p> <ul style="list-style-type: none"> — Migrant profile (e.g. demographics, education, skill level, income, legal status) — Employment status — Destination country — Time spent in destination country — Number of family members in country of origin/destination country
	How can diaspora with relevant skill sets be incentivized to return?	Breakdown of conditions under which diasporas would return, e.g. income, provision of adequate schooling, access to financial support (e.g. credit schemes, start-up grants)
Value target 13 – Facilitating the flow of remittances, trade and foreign investment		
Increase remittance volume	What are inward remittance volumes? Where and who are they coming from/going to?	<p>Number of emigrants by destination country</p> <p>Remittance volumes by:</p> <ul style="list-style-type: none"> — Migrant demographics (gender, age, socioeconomic status) — Skill level/occupation — Destination country — Recipient location (e.g. unit of geography within country of origin)

Value dimension	Potential insights	Key data required
	How significantly do remittances contribute to the local economy?	Total remittance volumes National GDP
	What key factors affect the volume of remittances?	Remittance volumes by: <ul style="list-style-type: none"> — Remittance fees — Per cent of migrants with access to financial services — Emigrant profile (e.g. temporary versus permanent) — Competition (i.e. number of service providers) — Service provider (e.g. formal/informal, bank/money-transfer operator)
	What are remittances used for?	Breakdown of remittance volumes by: <ul style="list-style-type: none"> — Types of consumption — Types of investment
Boost trade and foreign investment	What is the volume of trade with emigrant destination countries?	Number of emigrants by destination country Volume of trade (outflows and inflows) by: <ul style="list-style-type: none"> — Geography — Migrant demographics (gender, age, socioeconomic status) — Class of goods — Economic sector/industry
	What key factors affect the volume of trade?	Trade volumes by trade costs (e.g. tariffs, regulatory barriers) or benefits (e.g. subsidies)
	What is the volume of foreign investment of destination countries?	Number of emigrants by destination country Volume of investment by geography, demographics and type of investment
	What key factors affect the volume of foreign investment?	Amount of foreign investment by costs (tax rates, regulatory barriers) and expected return (including interest rates, risk, payoff), etc.

Value dimension	Potential insights	Key data required
Stimulate tourism/ visits and charita- ble giving	What is the spend of emi- grants as tourists in home country?	Amount of tourist spend by: <ul style="list-style-type: none"> — Number of emigrant visits as tourists — Geography
	What is the charitable giving of emigrants?	Amount of charitable donations by: <ul style="list-style-type: none"> — Geography

IRREGULAR MIGRATION

E – Journey

Value dimension	Potential insights	Key data required
Value target 14 – Ensuring migrant safety and protection		
Reduce migrant casualties	How many migrants die en-route?	By route (country of origin and destination and demographic data (gender, age, socioeconomic status): <ul style="list-style-type: none"> — Number of migrants traveled — Number of migrant deaths — Identification of deceased migrants — Share of dead migrants who are identified
	What is the main cause of migrant death en-route?	Migrant death rate by cause, e.g. drowning, vehicle accident, sickness, violence, exposure, starvation/dehydration Location/route of migrant deaths
	Who is most vulnerable during the journey and under what circumstances?	Migrant death rate by: <ul style="list-style-type: none"> — Demographics (gender, age, socioeconomic status) — Mode of transportation — Route taken (country of origin and destination) — Time of year
Identify more missing migrants	How many migrants go missing en-route?	By route (origin, transit and host country) and demographics (gender, age, socioeconomic status): Number of migrants traveled Number of migrants unaccounted for Share of missing migrants identified
Reduce human rights violations	What is the incidence of human rights abuse, and in what forms?	Per cent of migrants exposed to human rights abuse by type of abuse (e.g. violence, sex- and gender-based violence, human trafficking, forced labour)
	Who is most vulnerable and under what circumstances?	Incidence of human rights abuses by: <ul style="list-style-type: none"> — Demographics (gender, age, socioeconomic status) — Migrant profile — Mode of transportation — Route

Value dimension	Potential insights	Key data required
Value target 15 – Maintaining border security		
Improve border control efficacy	How effective is border control at ensuring that all immigrants enter via official channels?	<p>Number of immigrants</p> <p>Number of immigrants entering through unofficial border points, by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Route (origin and transit country, official or unofficial point of entry)
Reduce human smuggling	How prevalent is human smuggling?	<p>Number of cases of human smuggling by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Route (origin and transit country, official or unofficial point of entry) — Reason for smuggling (e.g. employment, asylum) — Types of smuggling and rings/organizations involved — Method of entry

Value dimension	Potential insights	Key data required
Value target 16 – Catering to basic needs (e.g. temporary shelter, food and water)		
Ensure adequacy of supply	Is there adequate supply of temporary housing?	<p>Forecasts of migration flows and arrivals by route</p> <p>Per arrival point:</p> <ul style="list-style-type: none"> — Capacity (units of accommodation) available — Migrant inflows per day — Average duration of migrant stay
	Is the shelter safe and of adequate quality?	<p>Per arrival point, per cent of accommodation units that:</p> <ul style="list-style-type: none"> — Are located in a safe environment — Are structurally secure — Provide protection from the elements (e.g. cold weather, floods) — Are equipped with basic amenities, e.g. electricity — Enable easy access to water and sanitation facilities
	Are migrants provided with sufficient food and water?	<p>Per arrival point:</p> <ul style="list-style-type: none"> — Average caloric intake per day per migrant — Number of liters of water provided per day per migrant
	Do migrants have timely access to basic medical care?	<p>Per arrival point:</p> <ul style="list-style-type: none"> — Per cent of migrants who have been attended to by a doctor — Per cent of migrants who have unmet medical needs (physical and psychosocial) — Average waiting time between request for medical support and provision of medical care — Number of doctors per migrant
	Maintain cost-effectiveness	What capacity needs to be planned for early on to keep cost low?
	Is shelter provided in a cost-effective manner?	<p>Per arrival point:</p> <ul style="list-style-type: none"> — Cost per unit of accommodation per migrant — Average lifespan of accommodation unit

Value dimension	Potential insights	Key data required
	Are basic supplies provided in a cost-effective manner?	Per arrival point: <ul style="list-style-type: none"> — Cost of food per migrant per day — Cost of water per migrant per day — Average duration of migrant stay
	Is medical assistance provided in a cost-effective manner?	Per arrival point: <ul style="list-style-type: none"> — Cost of medical supplies per treatment — Cost of medical care per treatment

Value target 17 – Guaranteeing orderly registration

Streamline asylum registrations	How many individuals have been registered and what is their profile?	<p>Standardized data on asylum seekers demographics compiled in centralized database that is accessible to relevant parties involved in asylum and integration process, e.g.:</p> <ul style="list-style-type: none"> — Name (in standardized transcription, if necessary) — Country/region of origin — Date and country of birth — Passport number — Route — Number and names of accompanying family members <p>Biometric data compiled in centralized database that is accessible to relevant parties involved in asylum and integration process, e.g.:</p> <ul style="list-style-type: none"> — Fingerprints — Biometric pictures
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Value dimension	Potential insights	Key data required
Verify registration details	Are applicant registration details accurate?	<p>Standardized data on asylum seekers' demographics compiled in centralized database that is accessible to relevant parties involved in asylum and integration process, e.g.</p> <ul style="list-style-type: none"> — Name (in standardized transcription, if necessary) — Country/region of origin — Date and country of birth — Passport number — Route — Number and names of accompanying family members <p>Biometric data compiled in centralized database that is accessible to relevant parties involved in asylum and integration process, e.g.</p> <ul style="list-style-type: none"> — Fingerprints — Biometric pictures <p>If applicable: additional information and data that corroborates personal details provided by registrant (e.g. transliteration of a name in a given language)</p>
Value target 18 – Ensuring efficient asylum processes		
Improve process efficiency	What are potential bottlenecks in the asylum process?	<p>Average time between immigrant arrival and determination of legal status by:</p> <ul style="list-style-type: none"> — Migrant country of origin — Location/processing center — Time of year — Reason for immigration (e.g. asylum, family reunification, employment) <p>Number of process steps from application to determination of legal status</p> <p>Average time:</p> <ul style="list-style-type: none"> — Per process (e.g. medical checkup) — In between each process (i.e. waiting time)
	Are applications processed in a cost-effective manner?	Average cost per application, by type of application

Value dimension	Potential insights	Key data required
Facilitate planning	How should capacity be planned to meet future immigration flows?	<p>Forecasts of number of migrants expected per time unit, broken down by:</p> <ul style="list-style-type: none"> — Likely type of application — Migrant country of origin — Point of arrival <p>Processing capacity per time unit, e.g.</p> <ul style="list-style-type: none"> — Number of personnel per port of arrival (broken down by type of personnel, e.g. interpreter, administrative personnel) — Time required to process each category of applications
Enhance decision-making efficacy and reduce error	Were decisions made to accept/reject applications correctly?	<p>Per cent of appeal cases that were overturned by:</p> <ul style="list-style-type: none"> — Migrant country of origin — Type of application — Location/processing center

Value target 19 – Planning balanced geographic allocation

Support successful labour market integration	Where could migrants be effectively integrated into the local labour market?	<p>Number of migrants by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Country of origin — Educational attainment — Skill profile/occupation <p>By unit of geography:</p> <ul style="list-style-type: none"> — Employment rate by skill level/occupation — Number of unfilled jobs by skill level/occupation — Skill level/occupation of native-born persons
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Value dimension	Potential insights	Key data required
Ensure adequate capacity	Where are sufficient resources to absorb additional residents?	<p>Number of migrant families by:</p> <ul style="list-style-type: none"> — Annual household income — Demographics (age, gender, socioeconomic status) — Country of origin <p>By unit of geography:</p> <ul style="list-style-type: none"> — Housing capacity (number of housing units of adequate quality) — Per cent of public housing units — Per cent of units available for rent — Number of native-born households — Average rent per sqm — Capacity of language courses (please refer to Target 5) — Capacity of healthcare sector (please refer to Target 7) — Capacity of education/training (please refer to Target 8)

Value dimension	Potential insights	Key data required
Value target 20 – Managing effective and sustainable return		
Design effective return policy	What are the characteristics of irregular migrants?	Number of irregular migrants by: <ul style="list-style-type: none"> — Geography — Demographics (age, gender, socioeconomic status) — Country of origin — Number of days since determination of legal status — Current legal status — Number of family members by age — Legal status of family members
	Are return policies effective and timely?	Per cent of migrants required to return that return by: <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status) — Country of origin — Type of return (voluntary versus forced) — Reason for return (e.g. rejected asylum application) Average number of days between determination of legal status and departure
	Is support offered for voluntary return sufficient?	Number of people choosing voluntary return Per cent of irregular migrants that participate in return counseling Capacity of return counseling by geography Monetary amount offered to returning migrants by country of origin Migrant's reasons for accepting assisted return offers
	What are the reasons for unsuccessful return?	Number of deportations planned Per cent of deportations cancelled and reasons for such Per cent of irregular immigrants with tolerated status by: <ul style="list-style-type: none"> — Reason for tolerated status — Duration of tolerated status since legal status was given
Support enforcement of residence law	What is the status/situation/residence of irregular migrants?	Personal information (e.g. name, passport number, number of family member and their legal status, country and date of birth) Reliable data on registered residence of irregular migrants

Value dimension	Potential insights	Key data required
Ensure cost-effectiveness of return	Are returns cost-effective?	<p>Average cost per return case by:</p> <ul style="list-style-type: none"> — Type of return (voluntary versus forced) — Type of cost (processing, transport, financial incentives) — Migrants' country of origin — Average cost of residence if not returned — Average number of days between determination of legal status and return
Value target 21 – Supporting successful reintegration		
Drive positive reintegration outcomes	Who are potential recipients?	<p>Per cent of return migrants given reintegration support:</p> <ul style="list-style-type: none"> — By geography/community — By migrant profile
	What types of reintegration programs are provided?	<p>Per cent of migrants covered by type of support e.g.</p> <ul style="list-style-type: none"> — One-time reinstatement grants versus a range of ongoing economic and social assistance — Support to the individual migrant — Support to the communities of which they are a member — Types of support (e.g. economic/employment, access to social networks, psychosocial)
	Which types of reintegration programs are most effective in addressing migrant needs?	<p>Per cent of returnees that are gainfully employed</p> <p>Per cent of returnees with basic needs covered</p>
Tailor reintegration assistance by recipient	What kind of returnees are most likely to re-emigrate?	<p>Per cent of returnees that re-emigrate by:</p> <ul style="list-style-type: none"> — Demographics (age, gender, socioeconomic status, family situation) — Number of years spent in destination country — Forced versus voluntary return — Skill level/occupation — Language abilities — Employment status — Geography and conditions (i.e. safety)

Value dimension	Potential insights	Key data required
	Which types of reintegration support help are most impactful for each group?	Broken down by each of the above groups: <ul style="list-style-type: none"> — Per cent of returnees that are gainfully employed — Per cent of returnees with basic needs covered
Ensure cost-effective reintegration	Are reintegration programs cost-effective?	Average cost of reintegration support per migrant, by type of support Total cost of reintegration support as per cent of GDP in both origin and host country

METHODOLOGY FOR CASES AND VALUE CALCULATIONS

The cases presented in this report are based on approximation and extrapolation of scenarios. Supporting data was retrieved from publicly available sources. The methodology is described in detail below.

A – Emigration

Providing transparency on the composition of recruitment fees could reduce cost for labour migrants in four Arab Gulf states by around USD 3–6 billion (for each reduction in recruitment costs equivalent to one month of migrants' average wages).

The calculation includes three steps:

Estimation of number of working migrants in Kuwait, Qatar, Saudi Arabia and the UAE based on UN DESA data on migrant populations per country and a Gulf-specific proxy on share of working population as part of the total migrant population^{74,75}

Estimation of the lower and upper bounds of the number of working migrants paying recruitment cost based on (i) the share of Pakistani low-skilled workers among all Pakistani emigrant workers, as per the ILO (lower bound), and (ii) the share of all migrants in Gulf countries, originating from countries other than OECD and Arab League member states, based on UN DESA data (upper bound)⁷⁶

Estimation of monthly salaries of working migrants in these countries based on ILO/KNOMAD survey of 2015.⁷⁷

B – Immigration

Identifying and incentivizing target groups with relevant skill sets from abroad can help close domestic labour market gaps (e.g. between 2005 and 2015 Australia increased the number of job vacancies filled by employer-sponsored migrants with relevant skills by approximately 14 per cent each year).

The analysis is based on data from Australia's Migration Trends 2014–15. Between 2005 and 2015, the number of immigrants entering Australia through the two major migration streams (family and skill stream) increased by about 30 per cent in each stream. The growth in the skill stream was predominantly driven by an increase in the number of employer-sponsored visas, which reflect genuine vacancies in the Australian labour market.⁷⁸

C – Integration and contribution

Identifying education gaps and targeting efforts accordingly could yield up to about 10 per cent higher incomes for every additional year in schooling for migrants.

The projection is based on gaps in educational performance between first-generation migrant students and their native-born peers and a UNESCO estimate of the value of education:

In terms of their educational performance, first-generation migrant students across OECD countries are behind their native-born peers by the equivalent of about one year of schooling.⁷⁹

UNESCO estimates incomes to increase by about 10 per cent for every additional year of schooling.⁸⁰

Immigrants' employment rates can be increased by 15–20 percentage points by using data to identify language gaps early on and providing targeted local access to language classes.

The projection is based on gaps in language proficiency between first-generation migrant students and their native-born peers and a Demos estimate of the value of language proficiency:

Demos estimates that employment rates are higher by 15–20 percentage points for people with high language proficiency (as opposed to low proficiency).⁸¹

Data-driven matching of qualifications and jobs could yield around EUR 5–7 billion in income increases for highly educated migrants in the EU alone.

The analysis entails four steps:

Estimate of number of highly educated migrant workers per country based on World Bank data on migrant populations and OECD data on employment rates and the share of tertiary-degree holders in migrant populations⁸²

Comparison of shares of overqualified migrant and native-born workers per country, based on OECD data (according to the OECD, overqualification is defined as situations where workers' levels of formal education are higher than those required by the jobs they fill)

Calculation of income differences of individuals with medium and high educational attainment based on Eurostat data⁸³

Potential income increases are calculated by assuming convergence in overqualification rates between migrant and native-born workers, leading to median income increases equivalent to wage difference between workers with medium and high educational attainment.

Increasing the average naturalization rate in the EU from about 62 per cent to 70 per cent can yield income increases of EUR 0.7–1.6 billion annually.

The projection includes four steps:

Analysis of foreign-born citizens per country that are eligible for naturalization (based on OECD data; eligibility is assumed for migrants with residence of more than 10 years).⁸⁴

Determination of potential for naturalization (i.e., isolation of immigrants eligible for naturalization who have not yet naturalized) (OECD data).

Analysis of median income of eligible migrants who did not naturalize per EU country (based on Eurostat data).⁸⁵

Estimate on cumulative income increase based on various models of naturalization's income effect, assuming EU countries would increase their naturalization rates by approximately 3–7 percentage points.^{86,87}

D – Development

Data-driven incentives could help encourage return of about 20 per cent of highly educated professionals from the diaspora.

The case is based on Malaysia's success rate to regain high-skilled workers, attracting applications from about 20 per cent of those who leave on an annual basis.⁸⁸

(As per the World Bank, an average of 565 high-skilled Malaysians migrated to the United States annually between 2011 and 2013. In the same time, the Returning Expert Programme attracted an average of 122 applicants per year from the United States.)

Providing diaspora with transparency on cheaper money-transfer options could generate around USD 15–20 billion in remittance increases to low- and middle-income countries.

This estimate is based on the World Bank analysis on current remittance costs and the assumption that costs could be reduced to the SDG target rate of 3 per cent.⁸⁹

E – Journey

If identification rates could be increased by 50 per cent, approximately 3,800 missing migrants could be identified additionally.

As per the IOM's Missing Migrants Project, more than 7,600 fatalities were recorded in 2016. If the detection rate could be increased by 50 per cent, around 3,800 more cases involving missing deaths could be identified. This is an assumption-based scenario based on research suggesting that the estimated number of unreported cases of migrant fatalities may be three to ten times the number of individuals identified.⁹⁰

Data analysis and corresponding interventions could double the number of uncovered human trafficking cases by 2020. This could enable support to approximately 150,000 victims of human trafficking.

The analysis entails two steps:

Analysis of the rate of improvement of Polaris in detecting human trafficking cases over a five-year period⁹¹

Extrapolation of Polaris' rate of improvement on current number of globally identified human trafficking victims, as per US State Department,⁹² to illustrate potential to uncover human trafficking worldwide⁹³ over a five-year period.

Analyzing call detail records could help governments and relief organizations respond to humanitarian disasters more effectively.

Case example of Flowminder tracing the flow of about 400,000 people within less than two weeks in the aftermath of the 2015 earthquake in Nepal by analyzing call detail records (CDR).^{94,95,96}

G – Return and reintegration

Better tailoring voluntary return assistance to migrants' needs could increase share of voluntary over forced returns and reduce cost for return efforts. A 10-percentage point increase in AVR over forced returns would have saved EU governments up to EUR 350 million for the years 2008–16.

The analysis entails three steps:

Analysis of number of returns in 2016, disaggregated by type of return (voluntary/forced), based on Eurostat data^{97,98}

Approximate calculation of cost incurred by voluntary and forced return efforts, based on estimates of costs¹

Estimate of cost savings for EU governments, had the share of voluntary returns been increased by 10 percentage points for the years 2008–16.

¹ Cost estimates are based on report from the German Federal Ministry of the Interior.

GLOSSARY OF TERMS

assisted voluntary return and reintegration	Administrative, logistical, financial and reintegration support for regular and irregular migrants, including rejected asylum seekers, victims of trafficking in human beings, stranded migrants, qualified nationals and other migrants unable or unwilling to remain in the host country who volunteer to return to their countries of origin.
asylum	A form of protection given by a State on its territory based on the principle of non-refoulement and internationally or nationally recognized refugee rights. It is granted to a person who is unable to seek protection in his or her country of nationality and/or residence in particular for fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion.
asylum-seeker	A person who seeks safety from persecution or serious harm in a country other than his or her own and awaits a decision on the application for refugee status under relevant international and national instruments. In case of a negative decision, the person must leave the country and may be expelled, as may any non-national in an irregular or unlawful situation, unless permission to stay is provided on humanitarian or other related grounds.
biometrics	The study of measurable biological characteristics. "Biometric identifiers" (BIs) are pieces of information that encode a representation of a person's unique biological makeup (e.g. fingerprints, retinal scans or voice scans). Some governments have introduced the use of biometrics as an improved security measure in issuing passports, visas or residence permits.
brain drain	Emigration of trained and talented individuals from the country of origin to another country resulting in a depletion of skills resources in the former.
brain gain	Immigration of trained and talented individuals into the destination country. Also called "reverse brain drain".
circular migration	The fluid movement of people between countries, including temporary or long-term movement, which may be beneficial to all involved if occurring voluntarily and linked to the labour needs of countries of origin and destination.
country of destination	The country that is a destination for migratory flows (regular or irregular). <i>See also host country, receiving country</i>
country of origin	The country that is a source of migratory flows (regular or irregular). <i>See also sending country</i>
country of transit	The country through which migratory flows (regular or irregular) move.

diasporas	Diasporas are broadly defined as individuals and members or networks, associations and communities who have left their country of origin but maintain links with their homelands. This concept covers more settled expatriate communities, migrant workers based abroad temporarily, expatriates with the nationality of the host country, dual nationals, and second-/third-generation migrants.
displacement	A forced removal of a person from his or her home or country, often due to armed conflict or natural disasters.
emigration	The act of departing or exiting from one State with a view to settling in another.
family migration	A general concept covering family reunification and the migration of a family unit as a whole.
family reunification/ reunion	Process whereby family members separated through forced or voluntary migration regroup in a country other than the one of their origin.
forced return	The compulsory return of an individual to the country of origin, transit or third country, on the basis of an administrative or judicial act.
high-skilled migrant	While there is no internationally agreed definition, two overlapping meanings are often intended. In very general terms, a high-skilled migrant is considered to be a person with tertiary education, typically an adult who has completed at least two years of postsecondary education. In a more specific sense, a high-skilled migrant is a person who has earned, either by tertiary level education or occupational experience, the level of qualifications typically needed to practice a profession.
host country	The country that is a destination for migratory flows (regular or irregular). <i>See also country of destination, receiving country</i>
human trafficking	“The recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation” (Art. 3(a), UN Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, Supplementing the UN Convention against Transnational Organized Crime, 2000). Trafficking in persons can take place within the borders of one State or may have a transnational character.

humanitarian assistance	Aid that addresses the needs of individuals affected by crises. It is primarily the responsibility of the State but also supported by international organizations, non-governmental organizations (NGOs) and the Red Cross/Red Crescent Movement. This assistance is provided in accordance with the humanitarian principles, particularly the principles of humanity (human suffering must be addressed wherever it is found, with particular attention to the most vulnerable in the population, such as children, women and the elderly; the dignity and rights of all victims must be respected and protected), neutrality (humanitarian assistance must be provided without engaging in hostilities or taking sides in controversies of a political, religious or ideological nature), and impartiality (humanitarian assistance must be provided without discriminating as to ethnic origin, gender, nationality, political opinions, race or religion. Relief of the suffering must be guided solely by needs, and priority must be given to the most urgent cases of distress).
immigration	A process by which non-nationals move into a country for the purpose of settlement.
irregular migrant	A person who, owing to irregular entry, breach of a condition of entry, or the expiry of his or her visa, lacks legal status in a transit or host country. The definition covers, inter alia, those persons who have entered a transit or host country lawfully but have stayed for a longer period than authorized or subsequently taken up employment (also called clandestine/undocumented migrant or migrant in an irregular situation). The term “irregular” is preferable to “illegal” because the latter carries a criminal connotation and is seen as denying migrants’ humanity.
irregular migration	Movement that takes place outside the regulatory norms of the sending, transit and receiving countries. There is no clear or universally accepted definition of irregular migration. From the perspective of destination countries, it is entry, stay or work in a country without the necessary authorization or documents required under immigration regulations. From the perspective of the sending country, the irregularity is, for example, seen in cases in which a person crosses an international boundary without a valid passport or travel document or does not fulfil the administrative requirements for leaving the country. There is, however, a tendency to restrict the use of the term “illegal migration” to cases of smuggling of migrants and trafficking in persons.
labour migration	Movement of persons from one State to another, or within their own country of residence, for the purpose of employment. Labour migration is addressed by most States in their migration laws. In addition, some States take an active role in regulating outward labour migration and seeking opportunities for their nationals abroad.

less-, low- and semi-skilled worker	There is no internationally agreed definition of a less-skilled or low-skilled and semi-skilled migrant worker. In broad terms, a semi-skilled worker is considered to be a person who requires a degree of training or familiarization with the job before being able to operate at maximum/optimal efficiency, although this training is not of the length or intensity required for designation as a skilled (or craft) worker, being measured in weeks or days rather than years, nor is it normally at the tertiary level. Many so-called "manual workers" (e.g. production, construction workers) should therefore be classified as semi-skilled. A less- or low-skilled worker, on the other hand, is considered to be a person who has received less training than a semi-skilled worker or, having not received any training, has still acquired his or her competence on the job.
migration flow	The number of migrants counted as moving or being authorized to move, to or from a given location in a defined period of time.
migrant worker	"A person who is to be engaged, is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national" (Art. 2(1), International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, 1990).
migration governance	System of institutions, legal frameworks, mechanisms and practices aimed at regulating migration and protecting migrants. Used almost synonymously with the term "migration management," although migration management is also sometimes used to refer to the narrow act of regulating cross-border movement at the State level.
naturalization	Granting by a State of its nationality to a non-national through a formal act on the application of the individual concerned. International law does not provide detailed rules for naturalization, but it recognizes the competence of every State to naturalize those who are not its nationals and who apply to become its nationals.
receiving country	Country of destination or a third country. In the case of return or repatriation, also the country of origin. Country that has accepted to receive a certain number of refugees and migrants on a yearly basis by presidential, ministerial or parliamentary decision <i>See also country of destination, host country</i>
refugee	A person who, "owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country. (Art. 1(A) (2), Convention relating to the Status of Refugees, Art. 1A(2), 1951 as modified by the 1967 Protocol). In addition to the refugee definition in the 1951 Refugee Convention, Art. 1(2), 1969 Organization of African Unity (OAU) Convention defines a refugee as any person compelled to leave his or her country "owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country or origin or nationality." Similarly, the 1984 Cartagena Declaration states that refugees also include persons who flee their country "because their lives, security or freedom have been threatened by generalized violence, foreign aggression, internal conflicts, massive violations of human rights or other circumstances which have seriously disturbed public order."

regular migration	Migration that occurs through recognized, authorized channels.
reintegration	Re-inclusion or re-incorporation of a person into a group or a process, e.g. of a migrant into the society of his or her country of origin or habitual residence.
remittances	Monies earned or acquired by non-nationals that are transferred back to their country of origin.
return migration	The movement of a person returning to his or her country of origin or habitual residence usually after spending at least one year in another country. This return may or may not be voluntary. Return migration includes voluntary repatriation.
sending country	A country from which people leave to settle abroad permanently or temporarily. <i>See also country of origin</i>
sexual exploitation	Any actual or attempted abuse of a position of vulnerability, power differential, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially, or politically from the sexual exploitation of another.
smuggling	"The procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident" (Art. 3(a), UN Protocol Against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime, 2000). Smuggling, contrary to trafficking, does not require an element of exploitation, coercion, or violation of human rights.
unaccompanied children	Persons under the age of majority in a country other than that of their nationality who are not accompanied by a parent, guardian or other adult who by law or custom is responsible for them. Unaccompanied children present special challenges for border control officials, because detention and other practices applied to undocumented adult non-nationals may not be appropriate for children.
voluntary return	The assisted or independent return to the country of origin, transit or another third country based on the free will of the returnee. <i>See also assisted voluntary return</i>

ENDNOTES

- 1 Tomas, Summers and Clemens, 2009. Migrants Count: Five Steps Toward Better Migration Data. Available from https://www.cgdev.org/sites/default/files/1422146_file_CGD_migration_FINAL_web_0.pdf
- 2 United Nations Department of Economic and Social Affairs, 2015. Transforming our world: the 2030 Agenda for Sustainable Development. Available from <https://sustainabledevelopment.un.org/post2015/transformingourworld>
- 3 United Nations General Assembly, 2016. Resolution adopted by the General Assembly on 19 September 2016. Available from http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/71/1
- 4 United Nations, 2017. Thematic sessions. Available from <http://refugeesmigrants.un.org/thematic-sessions>
- 5 Iaczko, 2016. Improving Data on International Migration and Development: Towards a Global Action Plan? Available from <http://gmdac.iom.int/sites/default/files/papers/Improving%20Data%20on%20International%20Migration%20and%20Development%20Towards%20a%20Global%20Action%20Plan%3F.pdf>
- 6 United Nations Department of Economic and Social Affairs, 2015. International Migration Flows to and from Selected Countries: The 2015 Revision. Available from <http://www.un.org/en/development/desa/population/migration/data/empirical2/docs/migflows2015documentation.pdf>
- 7 Juran and Snow, 2016. The Potential of the 2010 Population and Housing Census Round for International Migration Analysis. Available from <https://gmdac.iom.int/sites/default/files/Data%20Availability%20on%20International%20Migration.pdf>
- 8 United Nations Department of Economic and Social Affairs, 2015. International Migration Flows to and from Selected Countries: The 2015 Revision. Available from <http://www.un.org/en/development/desa/population/migration/data/empirical2/docs/migflows2015documentation.pdf>
- 9 Iaczko, 2016. Improving Data on International Migration and Development: Towards a Global Action Plan? Available from <http://gmdac.iom.int/sites/default/files/papers/Improving%20Data%20on%20International%20Migration%20and%20Development%20Towards%20a%20Global%20Action%20Plan%3F.pdf>
- 10 United Nations, Department of Economic and Social Affairs, Population Division (2017). International Migration Report 2017: Highlights(ST/ESA/SER.A/404). Available from http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf
- 11 International Organization for Migration, 2004. Glossary on Migration. Available from http://www.iomvienna.at/sites/default/files/IML_1_EN.pdf
- 12 Srisikandarajah, 2005. Reassessing the Impacts of Brain Drain on Developing Countries. Available from <https://www.migrationpolicy.org/article/reassessing-impacts-brain-drain-developing-countries>
- 13 Docquier, 2014. The brain drain from developing countries. Available from <https://wol.iza.org/uploads/articles/31/pdfs/brain-drain-from-developing-countries.pdf>
- 14 World Bank and Global Knowledge Partnership on Migration and Development, 2014. Reducing Recruitment Costs. Available from <http://www.knomad.org/sites/default/files/2017-12/Migration%20and%20Development%20Report%2012-14-17%20web.pdf>
- 15 International Labour Organization, 2015. ILO global estimates on migrant workers: Results and methodology. Available from http://www.ilo.org/wcmsp5/groups/public/-dgreports/-dcomm/documents/publication/wcms_436343.pdf
- 16 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>

- 17 Eurostat, 2016. Projected old-age dependency ratio. Available from <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00200&plugin=1>
- 18 Organisation for Economic Co-operation and Development, 2016. Getting Skills Right: Assessing and Anticipating Changing Skill Needs. Available from <http://www.oecd.org/publications/getting-skills-right-assessing-and-anticipating-changing-skill-needs-9789264252073-en.htm>
- 19 World Health Organization, 2017. Global Health Observatory data repository. Available from <http://apps.who.int/gho/data/node.main.A1444>
- 20 American Immigration Council, 2017. The Cost of Immigration Enforcement and Border Security. Available from https://www.americanimmigrationcouncil.org/sites/default/files/research/the_cost_of_immigration_enforcement_and_border_security.pdf
- 21 Government of Canada, 2017. My immigration or citizenship application. Available from <http://www.cic.gc.ca/ENGLISH/information/times/index.asp#>
- 22 Australian Department of Immigration and Border Protection, 2016. Australia's Migration Trends 2014-15. Available from <http://www.border.gov.au/ReportsandPublications/Documents/statistics/migration-trends-14-15-full.pdf>
- 23 Organisation for Economic Co-operation and Development, 2012. Untapped Skills: Realising the potential of immigrant students. Available from <https://www.oecd.org/edu/Untapped%20Skills.pdf>
- 24 Eurostat, 2011. Migrants in Europe. A statistical portrait of the first and second generation. Available from <http://ec.europa.eu/eurostat/documents/3217494/5727749/KS-31-10-539-EN.PDF/bcf27a60-7016-4fec-98c5-e8488491ebbd>
- 25 Sarria-Santamera et al., 2016. A systematic review of the use of health services by immigrant and native populations. *Public Health Reviews* 37:28. Available from <https://publichealthreviews.biomedcentral.com/track/pdf/10.1186/s40985-016-0042-3?site=publichealthreviews.biomedcentral.com>
- 26 Organisation for Economic Co-operation and Development, 2016. PISA 2015 Results (Volume II): Excellence and Equity in Education. Available from http://www.oecd-ilibrary.org/education/pisa-2015-results-volume-i_9789264266490-en
- 27 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 28 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 29 United States Patent and Trademark Office, 2016. U.S. Patent Statistics Chart: Calendar Years 1963-2015. Available from https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm
- 30 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 31 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 32 Organisation for Economic Co-operation and Development, 2015. Settling In: Indicators of Immigrant Integration 2015. Available from <http://www.oecd.org/els/mig/Indicators-of-Immigrant-Integration-2015.pdf>
- 33 Organisation for Economic Co-operation and Development, 2015. Settling In: Indicators of Immigrant Integration 2015. Available from <http://www.oecd.org/els/mig/Indicators-of-Immigrant-Integration-2015.pdf>
- 34 Organisation for Economic Co-operation and Development, 2015. Settling In: Indicators of Immigrant Integration 2015. Available from <http://www.oecd.org/els/mig/Indicators-of-Immigrant-Integration-2015.pdf>

- 35 Hausmann and Nedelkoska, 2017. Effects of Return Migration on the Non-migrants' Wages and Employment. Available from <https://www.hks.harvard.edu/centers/cid/publications/faculty-working-papers/effects-of-return-migration>
- 36 Hausmann and Nedelkoska, 2017. Effects of Return Migration on the Non-migrants' Wages and Employment. Available from <https://www.hks.harvard.edu/centers/cid/publications/faculty-working-papers/effects-of-return-migration>
- 37 World Bank Group and Global Knowledge Partnership on Migration and Development (KNOMAD), 2017. Migration and Development Brief 28: Migration and Remittances. Available from <http://www.knomad.org/publication/migration-and-development-brief-28>
- 38 International Organization for Migration, 2017. Fatal Journeys: Volume 1, Part 3: Improving Data on Missing Migrants. Available from https://publications.iom.int/system/files/pdf/fatal_journeys_volume_3_part_1.pdf
- 39 International Organization for Migration, 2016. Fatal Journeys: Volume 2: Identification and Tracing of Dead and Missing Migrants. Available from https://publications.iom.int/system/files/fataljourneys_vol2.pdf
- 40 International Labour Organization and Walk Free Foundation, 2017. Global estimates of modern slavery: forced labour and forced marriage. Available from http://www.alliance87.org/global_estimates_of_modern_slavery-forced_labour_and_forced_marriage.pdf
- 41 International Organization for Migration, 2017. Fatal Journeys: Volume 1, Part 3: Improving Data on Missing Migrants. Available from https://publications.iom.int/system/files/pdf/fatal_journeys_volume_3_part_1.pdf
- 42 Amnesty International, 2010. Widespread abuse against migrants is Mexican "human rights crisis". Available from <https://www.amnesty.org/en/press-releases/2010/04/widespread-abuse-against-migrants-mexican-e28098human-rights-crisis-e28099/>
- 43 European Border and Coast Guard Agency (Frontex), 2017. Migratory Routes Map. Available from <http://frontex.europa.eu/trends-and-routes/migratory-routes-map/>
- 44 Krogstad, Passel and Cohn, 2017. 5 facts about illegal immigration in the U.S. Available from <http://www.pewresearch.org/fact-tank/2017/04/27/5-facts-about-illegal-immigration-in-the-us/>
- 45 Iaczko and Rango, 2014. Can Big Data help us achieve a "migration data revolution"? available from http://publications.iom.int/system/files/pdf/mpp16_24june2014.pdf
- 46 Internal Displacement Monitoring Centre and International Organization for Migration, 2014. The Evolving Picture of Displacement in the Wake of Typhoon Haiyan: An Evidence-based Overview, available from <http://www.iom.int/files/live/sites/iom/files/Country/docs/The-Evolving-Picture-of-Displacement-in-the-Wake-of-Typhoon-Haiyan.pdf>
- 47 UN Global Pulse, 2017. Pilot Studies: Using machine learning to analyse radio content in Uganda, available from <https://www.unglobalpulse.org/projects/pilot-studies-using-machine-learning-analyse-radio-content-uganda-2017>
- 48 IOM, 2017. Fatal Journeys, Volume 3, Part 1: Improving Data on Missing Migrants, available from <https://publications.iom.int/books/fatal-journeys-volume-3-part-1-improving-data-missing-migrants>
- 49 OECD, 2013. World Migration in Figures, available from <http://www.oecd.org/els/mig/World-Migration-in-Figures.pdf>
- 50 International Labour Organization, 2015. ILO global estimates on migrant workers: Results and methodology. Available from http://www.ilo.org/wcmsp5/groups/public/-dgreports/-dcomm/documents/publication/wcms_436343.pdf
- 51 UNICEF, 2017. A deadly journey for children: The central Mediterranean <https://www.unicef.org.uk/publications/deadly-journey-children-central-mediterranean-migration-route/>

- 52 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 53 International Labour Organization, 2015. ILO global estimates on migrant workers: Results and methodology. Available from http://www.ilo.org/wcmsp5/groups/public/-dgreports/-dcomm/documents/publication/wcms_436343.pdf
- 54 International Organization for Migration, 2017. Fatal Journeys: Volume I, Part 3: Improving Data on Missing Migrants. Available from https://publications.iom.int/system/files/pdf/fatal_journeys_volume_3_part_1.pdf
- 55 International Organization for Migration, 2017. Fatal Journeys: Volume I, Part 3: Improving Data on Missing Migrants. Available from https://publications.iom.int/system/files/pdf/fatal_journeys_volume_3_part_1.pdf
- 56 United Nations High Commissioner on Refugees, 2016. Global Trends: Forced Displacement in 2015. Available from <http://www.unhcr.org/576408cd7.pdf>
- 57 International Monetary Fund, 2016. The Refugee Surge in Europe: Economic Challenges. Available from <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1602.pdf>
- 58 International Monetary Fund, 2016. The Refugee Surge in Europe: Economic Challenges. Available from <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1602.pdf>
- 59 Connor, 2017. Still in Limbo: About a Million Asylum Seekers Await Word on Whether They Can Call Europe Home. Available from <http://www.pewglobal.org/2017/09/20/a-million-asylum-seekers-await-word-on-whether-they-can-call-europe-home/>
- 60 The Migration Observatory, 2017. Migration to the UK: Asylum. Available from <http://www.migrationobservatory.ox.ac.uk/resources/briefings/migration-to-the-uk-asylum/>
- 61 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 62 United States National Institute of Standards and Technology, 2017. Face In Video Evaluation (FIVE): Face Recognition of Non-Cooperative Subjects. Available from <http://nvlpubs.nist.gov/nistpubs/ir/2017/NIST.IR.8173.pdf>
- 63 McKinsey Global Institute, 2016. Global migration's impact and opportunity. Available from <https://www.mckinsey.com/global-themes/employment-and-growth/global-migrations-impact-and-opportunity>
- 64 Eurostat, 2017. Third-country nationals who have left the territory by type of return and citizenship. Available from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr_eirt_vol&lang=en
- 65 Frontex, 2016. Risk Analysis for 2016. Available from http://frontex.europa.eu/assets/Publications/Risk_Analysis/Annula_Risk_Analysis_2016.pdf
- 66 International Organization for Migration, 2017. REAG/GARP Program 2017. Available from http://germany.iom.int/sites/default/files/REAG/REAG-GARP-2017_Infoblatt-Englisch.pdf
- 67 International Organization for Migration, 2017. Starthilfe Plus. Available from <http://germany.iom.int/en/starthilfeplus>
- 68 International Organization for Migration, 2017. Assisted voluntary return and reintegration – 2016 key highlights. Available from https://www.iom.int/sites/default/files/our_work/DMM/AVRR/AVRR-2016-KeyHighlights.pdf
- 69 Parusel, 2016. Sweden's Asylum Procedures. Available from https://www.bertelsmann-stiftung.de/fileadmin/files/Projekte/28_Einwanderung_und_Vielfalt/IB_Studie_Asylum_Procedures_Sweden_Parusel_2016.pdf
- 70 Kopto, 2014. Benefits and Costs of the Data for Development Targets for the Post-2015 Development Agenda. Available from http://www.copenhagenconsensus.com/sites/default/files/data_viewpoint_-_kopto_.pdf

- 71 United States Census, 2015. 2010 Census Data Products: United States. Available from <https://www.census.gov/population/www/cen2010/glance>
- 72 United Nations Office on Drugs and Crime, 2015. Migrant Smuggling in Asia: Current Trends and Related Challenges. Available from https://www.unodc.org/documents/southeastasiaandpacific/Publications/2015/som/Current_Trends_and_Related_Challenges_web.pdf
- 73 European Commission Migration and Home Affairs, 2017. Visa Information System (VIS). Available from https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/visa-information-system_en
- 74 United Nations Department of Economic and Social Affairs, 2017. International migrant stock 2017. Available from <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates17.shtml>
- 75 Daily Sabah, 2016. Gulf Countries employ highest number of foreign workers. Available from <https://www.dailysabah.com/business/2016/01/28/gulf-countries-employ-highest-number-of-foreign-workers>
- 76 International Labour Organization, 2016. The cost of migration: What low-skilled migrant workers from Pakistan pay to work in Saudi Arabia and the United Arab Emirates. Available from http://www.ilo.org/wcmsp5/groups/public/-asia/-ro-bangkok/-ilo-kathmandu/documents/publication/wcms_514127.pdf
- 77 International Labour Organization, 2015. ILO-WB partnership on measuring recruitment costs: progresses on SDG indicator 10.7.1. Available from http://www.un.org/en/development/desa/population/migration/events/coordination/15/documents/presentations/17022017_Session7_ILO_Michellaleighton.pdf
- 78 Australian Department of Immigration and Border Protection, 2016. Australia's Migration Trends 2014-15. Available from <http://www.border.gov.au/ReportsandPublications/Documents/statistics/migration-trends-14-15-full.pdf>
- 79 Organisation for Economic Co-operation and Development, 2016. PISA 2015 Results (Volume I): Excellence and Equity in Education. Available from http://www.oecd-ilibrary.org/education/pisa-2015-results-volume-i_9789264266490-en
- 80 United Nations Educational, Scientific and Cultural Organization, 2011. Education Counts: Towards the Millenium Development Goals. Available from <http://unesdoc.unesco.org/images/0019/001902/190214e.pdf>
- 81 Demos, 2014. On Speaking Terms. Available from https://www.demos.co.uk/files/On_speaking_termsweb.pdf?1408395571
- 82 Organisation for Economic Co-operation and Development, 2015. Settling In: Indicators of Immigrant Integration 2015. Available from <http://www.oecd.org/els/mig/Indicators-of-Immigrant-Integration-2015.pdf>
- 83 Eurostat, 2017. Mean and median income by educational attainment level - EU-SILC survey. Available from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di08&lang=en
- 84 Organisation for Economic Co-operation and Development, 2015. Settling In: Indicators of Immigrant Integration 2015. Available at: <http://www.oecd.org/els/mig/Indicators-of-Immigrant-Integration-2015.pdf>
- 85 Eurostat, 2017. Mean and median income by broad group of citizenship (population aged 18 and over). Available from <http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>
- 86 Enchautegui and Giannarelli, 2015. The Economic Impact of Naturalization on Immigrants and Cities. Available from <https://www.urban.org/sites/default/files/publication/76241/2000549-The-Economic-Impact-of-Naturalization-on-Immigrants-and-Cities.pdf>
- 87 Organisation for Economic Co-operation and Development, 2011. Naturalisation: A Passport for the Better Integration of Immigrants? Available from http://www.oecd-ilibrary.org/social-issues-migration-health/naturalisation-a-passport-for-the-better-integration-of-immigrants_9789264099104-en

- 88 World Bank Group, 2015. Improving the Effectiveness of TalentCorp's Initiatives: Assessment of Returning Expert Programme & Residence Pass - Talent. Available from <http://documents.worldbank.org/curated/en/979921468185948875/pdf/104625-WP-PUBLIC-Report-Talent-Corp-Final-June-23-PUBLIC.pdf>
- 89 World Bank Group, 2017. Remittance Prices Worldwide. Available from <https://remittanceprices.worldbank.org/en>
- 90 Blanchard et al., 2008. Compter les morts (Counting the dead). *Plein Droit 77*, La Revue du GISTI, Paris.
- 91 National Human Trafficking Hotline, 2017. Hotline Statistics. Available from <https://humantraffickinghotline.org/states>
- 92 United States Department of State, 2017. Trafficking in Persons Report 2017. Available from <https://www.state.gov/documents/organization/271339.pdf>
- 93 International Labour Organization and Walk Free Foundation, 2017. Global estimates of modern slavery: forced labour and forced marriage. Available from https://www.alliance87.org/global_estimates_of_modern_slavery-forced_labour_and_forced_marriage.pdf
- 94 Wilson et al., 2016. Rapid and Near Real-Time Assessments of Population Displacement Using Mobile Phone Data Following Disasters: The 2015 Nepal Earthquake. Available from <http://currents.plos.org/disasters/article/rapid-and-near-real-time-assessments-of-population-displacement-using-mobile-phone-data-following-disasters-the-2015-nepal-earthquake/>
- 95 Internal Displacement Monitoring Centre and Norwegian Refugee Council, 2015. Global Estimates 2015: People displaced by disasters. Available from <http://www.internal-displacement.org/library/publications/2015/global-estimates-2015-people-displaced-by-disasters/>
- 96 United States Agency for International Development (USAID), 2015. Nepal Earthquake – Fact Sheet #23. Available from <https://www.usaid.gov/nepal-earthquake/fy15/fs23>
- 97 Eurostat, 2017. Statistics on enforcement of immigration legislation. Available from http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_enforcement_of_immigration_legislation
- 98 United Kingdom Home Office, 2017. National Statistics Returns. Available from <https://www.gov.uk/government/publications/immigration-statistics-october-to-december-2016/returns>

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