Roland Berger Trend Compendium 2030

Megatrend 1
Demographic dynamics

October 2017

About the Roland Berger Trend Compendium 2030

What is it?

> The Roland Berger Trend Compendium 2030 is a global trend study compiled by Roland Berger Institute (RBI), the think tank of Roland Berger

> It describes the most important megatrends that will shape the world between now and 2030

> The megatrends have a broad impact on the environment of companies, strongly influencing challenges and opportunities of their business

Our approach

> We first screened relevant trend, scenario and future studies worldwide

> Then we verified, analyzed and consolidated the results, using them to define the megatrends

> Next, we broke down the megatrends into subtrends, looking at each from a global perspective and the viewpoints of industrialized and developing countries

> Finally, we identified corporate actions that companies worldwide should consider taking today

Use it!

> For your own presentations, for discussions with clients and business partners or as springboards for acquisition approaches

> Following the description of the subtrends and the recommended corporate actions, you will find the most important sources to help you keep track of the changes in the world, as well as dig deeper into the trends presented

The Roland Berger Trend Compendium 2030 focuses on stable long term developments

> The Roland Berger Trend Compendium covers megatrends – long-term developments with major impact (usually global) on companies, economies and the natural world

> The forecasts are based on estimates reflecting the "normal" case, i.e. a stable development of the global economy with no unexpected events ("black swans"). Major political or financial crises, large-scale natural disasters or similar far-reaching events are not integral to our assumptions

> To incorporate today's volatile, uncertain, complex and ambiguous (VUCA) environment into strategic planning we recommend to combine the megatrends of the Roland Berger Trend Compendium with the Roland Berger scenario planning approach

Methodology

It covers seven megatrends that shape the future development of our world

1. Demographic dynamics
2. Globalization & future markets
3. Scarcity of resources
4. Climate change & ecosystem at risk
5. Dynamic technology & innovation
6. Global knowledge society
7. Sustainability & global responsibility

Megatrends

Demographic dynamics are a worldwide game changer for countries' societies and economies – There are four key subtrends

Subtrends of megatrend "Demographic dynamics"

01 Growth – Global population on the rise

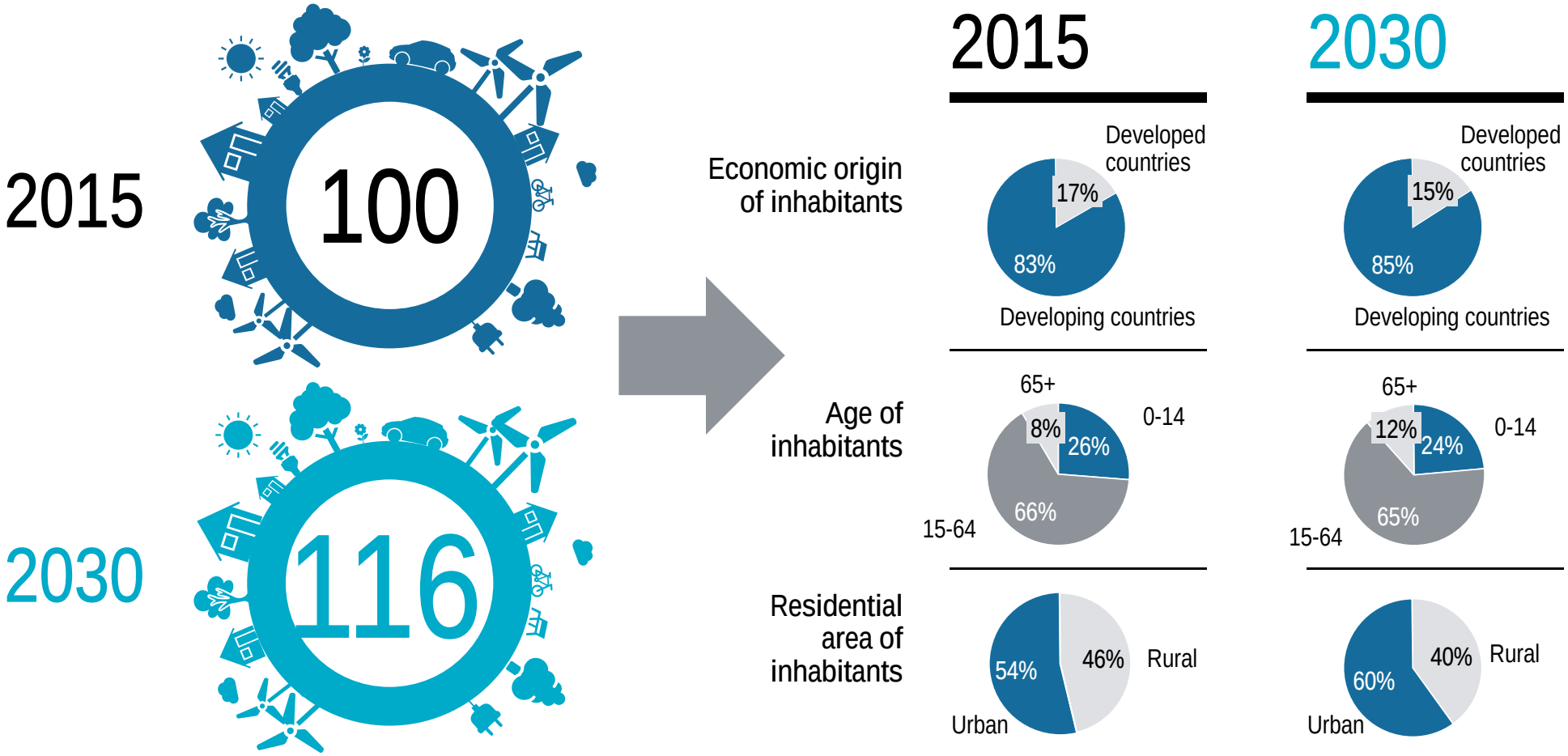
02 Young vs. old countries – A world full of contrasts

03 Migration – A world on the move

04 Urbanization – Megacities vs. wasteland

Imagine the world as a village of 100 inhabitants – Between 2015 and 2030 the number of inhabitants will rise to 116

Development of the global village [inhabitants, %]

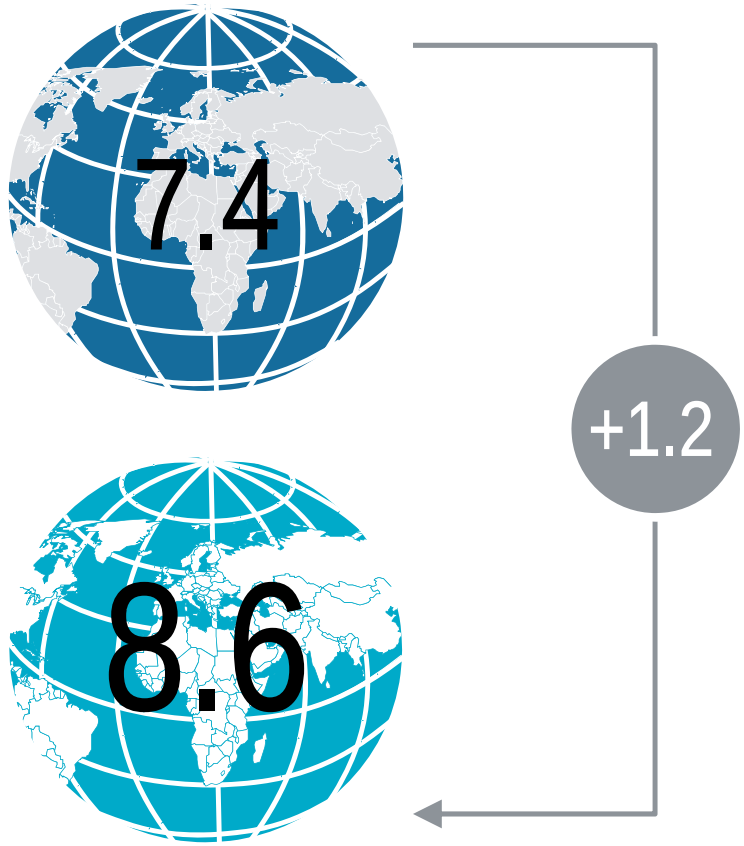


Notes: Data from the UN World Population Prospects: The latest Revision (2017; 2014 for World Urbanization Prospect), estimations are based on the medium-variant projection which assumes a fertility decline in countries where large families are still prevalent as well as a slight fertility increase in several countries with fewer than two children per woman on average

Source: UN DESA

The global population will grow by almost 1.2 billion between 2015 and 2030 – But the speed of growth is slowing down

Development of the global population [bn]



World

> The world population is projected to increase to 8.6 **billion in** 2030, up 16% from 7.4 **billion today**[1)]. In 2000, the world population was **6.1 billion** – 20% less than today

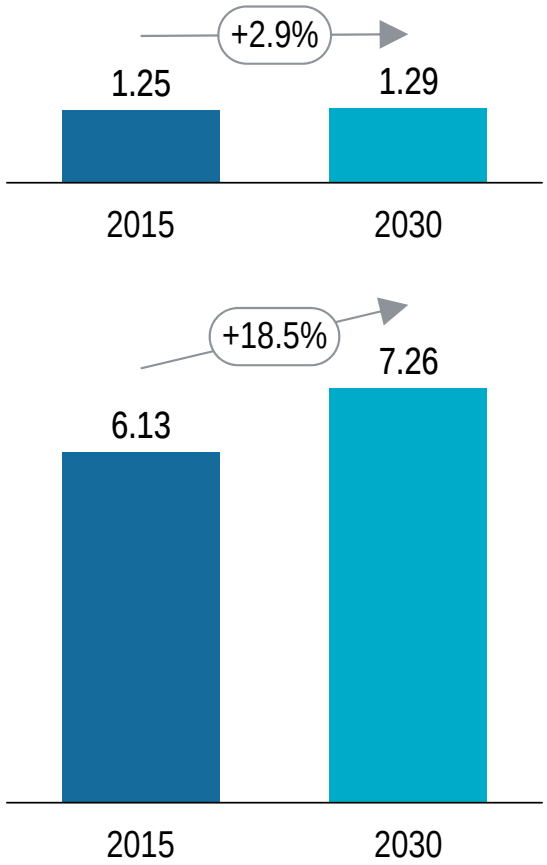
> Compared to the population growth of the past 15 years, the **speed of growth is slowing down**. Between 2000 and 2015, the **population grew by** 1.2% or 83 million people p.a., whereas the average annual growth rate **between** 2015 **and** 2030 is expected to drop **below** 1% (0.98% or 78 million people p.a.)

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection 1) Today refers to 2015 data here and on all subsequent slides

Source: UN DESA

97% of global population growth between 2015 and 2030 will take place in developing countries

Population growth between 2015 and 2030 [bn]



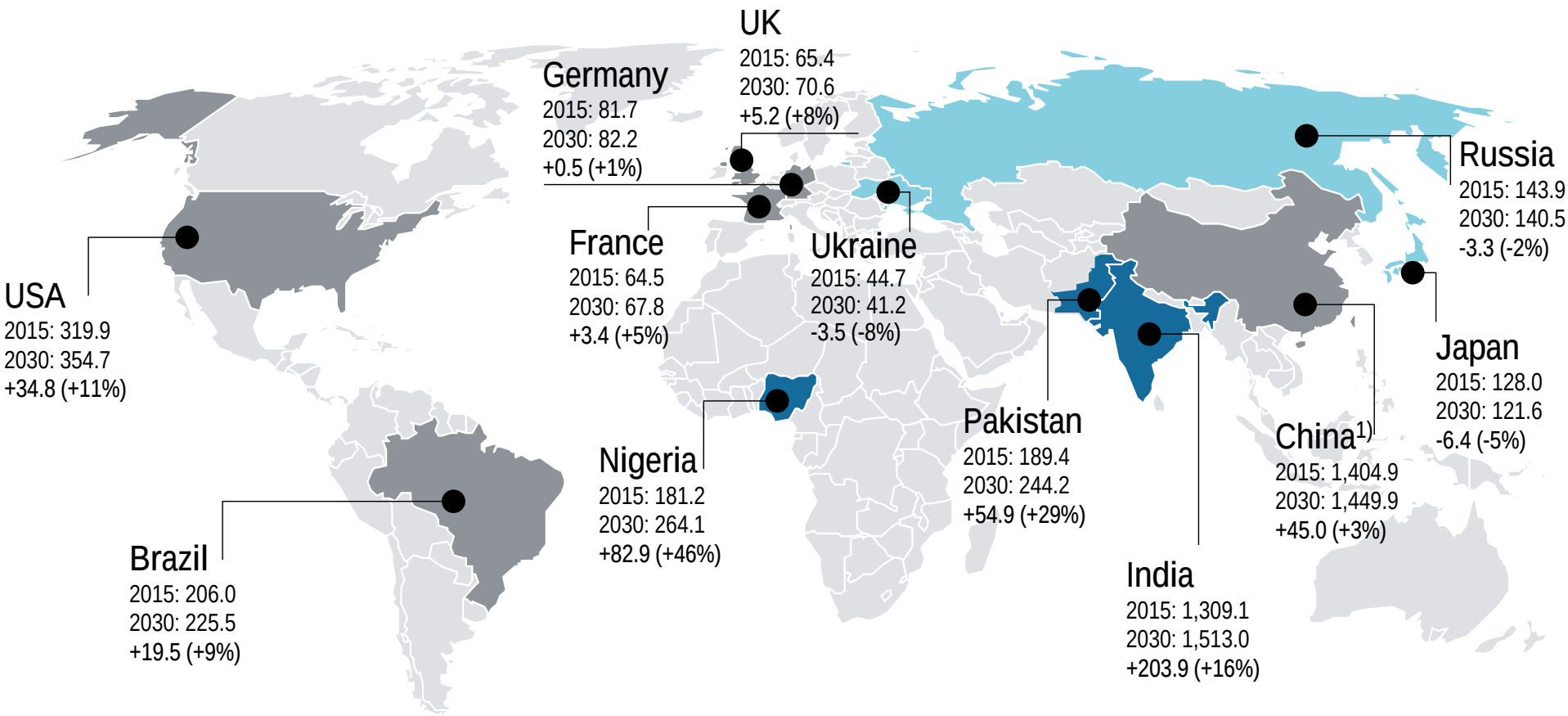
- Population in **developed regions** is projected to **grow only slightly by 2.9% or 37 million people** from 2015 to 2030 (0.19% p.a.) to 1.3 billion people, while population in **developing regions is expected to grow by 18.5% or 1.2 billion people** over the same period (1.1% p.a.), reaching 7.3 billion people in 2030
- This means that the **developing countries** are growing more than **six times faster** than developed countries and are responsible for **97% of worldwide total population growth** between 2015 and 2030
- Within developing regions, population **growth is especially high in the least developed countries** (39.5% or 2.2% p.a. by 2030). These countries in particular will face **several challenges** such as lack of key resources (water, energy, food) as well as massive implications for social security, healthcare and basic education

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection

Source: UN DESA

Nearly 30% of total worldwide population growth between now and 2030 will take place in just three countries: India, Nigeria & Pakistan

Key countries in terms of absolute population growth/decline between 2015 and 2030 [m]



Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection 1) China includes Hong Kong and Macao

Source: UN DESA, Destatis

Overall, more than half of global population growth is concentrated in only ten countries

Countries with high population growth

> The ten countries with the **highest absolute population growth**[1] account for **more than half of the global population increase** (51%) between 2015 and 2030. The population increase in **India, Nigeria and Pakistan** represents 29% (17%, 7% and 5% respectively) **of global population growth**. **Nigeria's** population is expected to **grow by** 46% (+82.9 million). In 2022 **India** (then with a population of 1.4 billion people) will **overtake China** as the country with the highest population worldwide. Because **China's population growth has slowed** down, the country has decided to formally **end the one-child policy**

> The reason for the high population increases in most of these ten countries are **high fertility rates**. However, there are exceptions. For example, the driver of population growth **in the USA is immigration.** In countries with increasing populations, integrating migrants into social and working life is and will be a major challenge

Countries with shrinking populations

> In most of the ten countries with the **highest population decreases**[2], **very low fertility rates** are the main cause of this development. All of these countries have below-replacement fertility rates[3]. While in Russia, Italy, Japan, Hungary and Portugal the effect of low-fertility rates is partly absorbed by positive net migration between 2015-2030, particularly Eastern European countries such as Romania, Ukraine, Poland, Serbia and Bulgaria are suffering additionally from ongoing outward migration

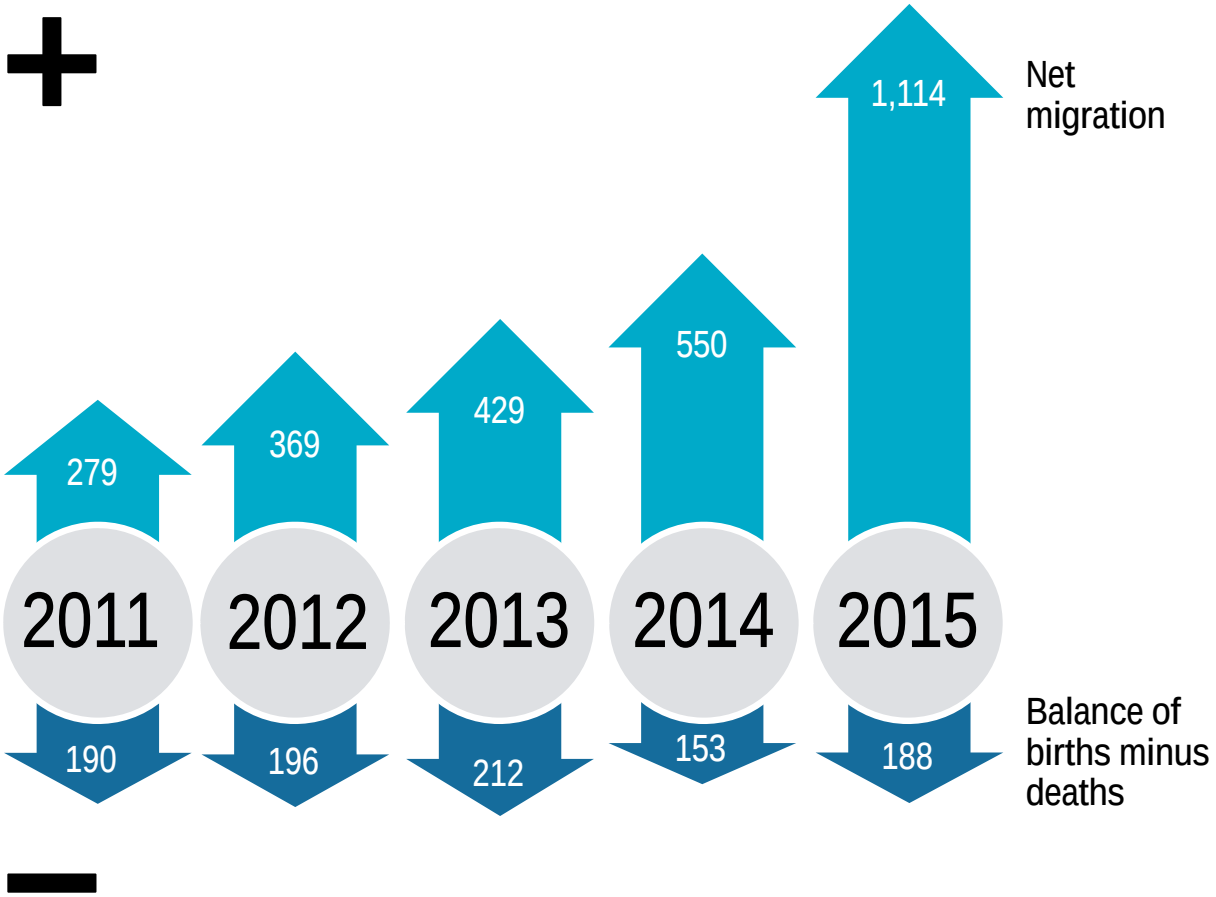
> In the long-term view, **skills shortages will become a serious problem** in countries with decreasing populations (also see megatrend 6 "Global knowledge society")

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection 1) India, Nigeria, Pakistan, Congo, China, Ethiopia, Indonesia, USA, Tanzania and Egypt 2) Japan, Ukraine, Russia, Poland, Romania, Italy, Bulgaria, Hungary, Portugal and Serbia 3) Fewer than 2.1 children per woman

Source: UN DESA

Migration is halting the long-evident population decline for Germany – A small positive growth is expected by 2030

Decrease and increase of German population – Net migration, births and deaths ['000]



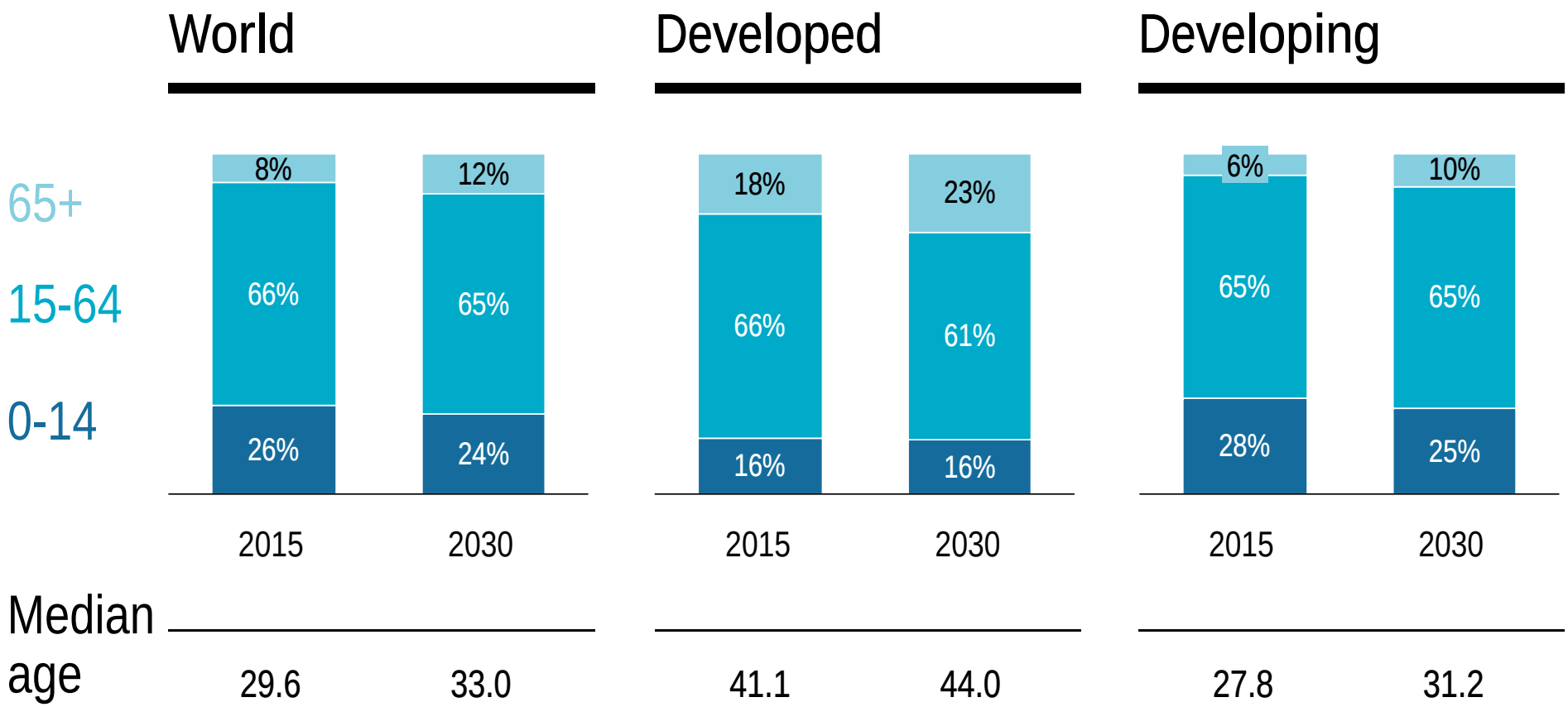
- In 2016, the number of inhabitants in Germany increased for the **sixth time in a row to an estimated 82.8 million**[1)]
- The negative balance of births and deaths was clearly **offset by net migration**, particularly in 2015
- Up until recently, **long-term** forecasts estimated that Germany's population **was declining** but this trend is currently reversing. The latest UN forecast predicts an increase of +0.5 million people by 2030
- Nevertheless, the Federal Statistical Office of Germany is clear in that **migration cannot reverse the trend** towards **increased population aging**

1) Estimate as of end of 2016, final results to be confirmed

Source: Destatis, UN DESA

By 2030, the global median age will increase by 3.4 years – Half of the world's population will be older than 33 years

Age groups and median age [%, years]



Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection

Source: UN DESA

The rising old-age dependency ratio constitutes a big challenge for developed countries

World

> Since **life expectancy** is continuing to increase, the **median age will also rise**. Globally, it is expected to go up by 3.4 years within the next 15 years, reaching 33.0 years in 2030

> While the share of young people aged 0-14 will decrease from 26% in 2015 to 24% in 2030, the **share of over-65s will increase from 8% in 2015 to 12% in 2030**. The share of the working age population (age 15-64[1)]) will stay relatively stable with 66% in 2015 and 65% in 2030

Developed vs. developing countries

> The **median age in developed countries** will increase by **2.9 years to 44.0 years in 2030**, while the median age in **developing countries** will grow stronger by **3.5 years**, reaching **31.2 years** in 2030. In **developed countries**, the biggest challenge is how to cope with the **increasing old-age dependency ratio**, i.e. the number of people aged 65+ per number of people aged 15-64. The **working age population** in the developed countries will drop from 66% of the total population in 2015 to **61% in 2030** (-36 million people), while the population **aged 65+** will increase from 18% in 2015 to **23% in 2030** (+75 million people)

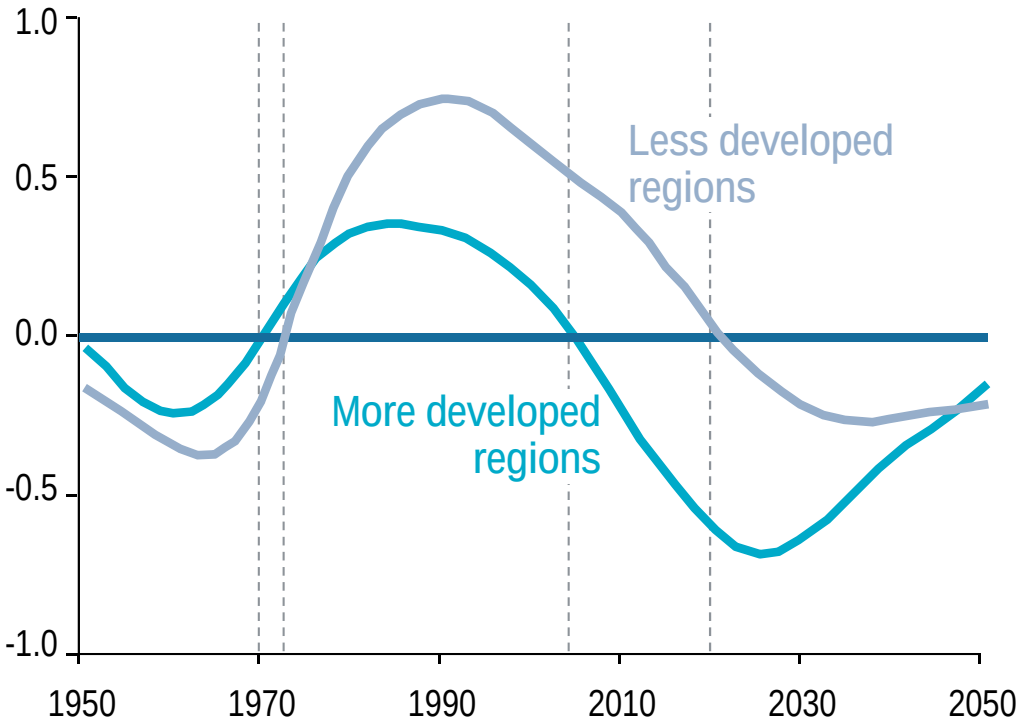
> In **developing countries**, the working age population in **absolute numbers** will **increase by 725 million people** until 2030, while the **share of the working age population** will remain **constant** at 65%. In developing countries, the share of **young people** (age 0-14) will decrease from 28% in 2015 to 25% in 2030, which is still a very high level compared to the share of "youngsters" in developed countries. This means providing adequate **education and job opportunities** for them will remain a **major challenge** for developing countries

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection 1) Age range used by UN, World Bank and ILO

Source: UN DESA

The demographic dividend is already negative in the more developed regions and by 2020 also in the less developed regions

Demographic dividend[1)] 1950-2050:
Economic growth potential resulting from a shift in a population's age structure [%]



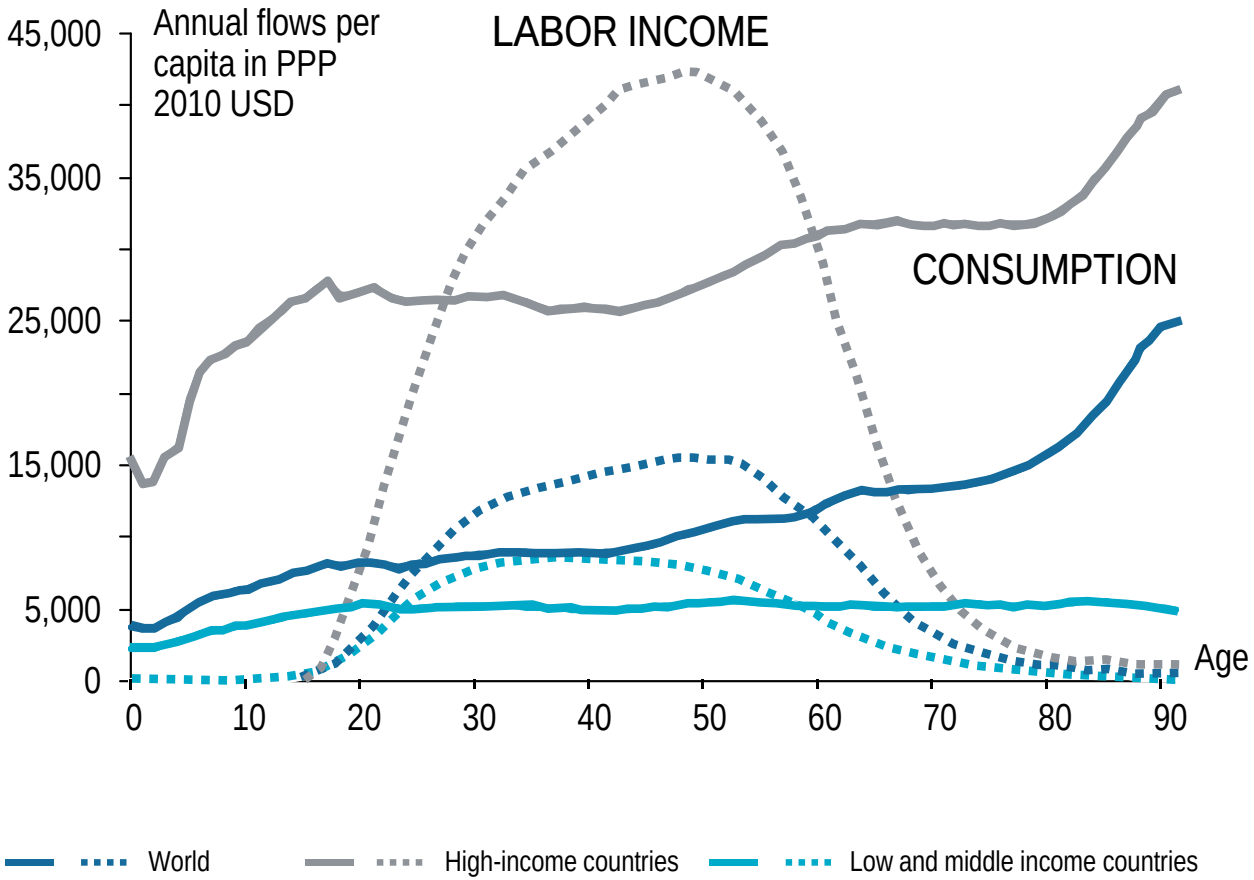
- A demographic dividend is the **potential for economic growth** that can result from **shifts in a population's age structure** when the share of the working-age population expands relative to the non-working age population
- A high ratio of workers to dependents (i.e. children and the elderly) **creates the potential for a major boost in economic growth**, as resources that might otherwise be needed to support dependents can instead be diverted to human capital and savings
- The demographic dividend can account for an estimated **two percentage points of annual growth** in income per capita. However the economic dividend is already negative in the more developed regions and will turn negative in the less developed regions by 2020 resulting in an additional economic burden

Notes: Data from the UN World Population Aging: The 2015 Revision (latest); estimates are based on the medium-variant projection 1) Demographic dividend is defined as the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older

Source: UN DESA

The upside of demographics: In developed countries, the elderly save less and spend more

Per capita consumption and labor income by age [PPP 2010 USD, years]

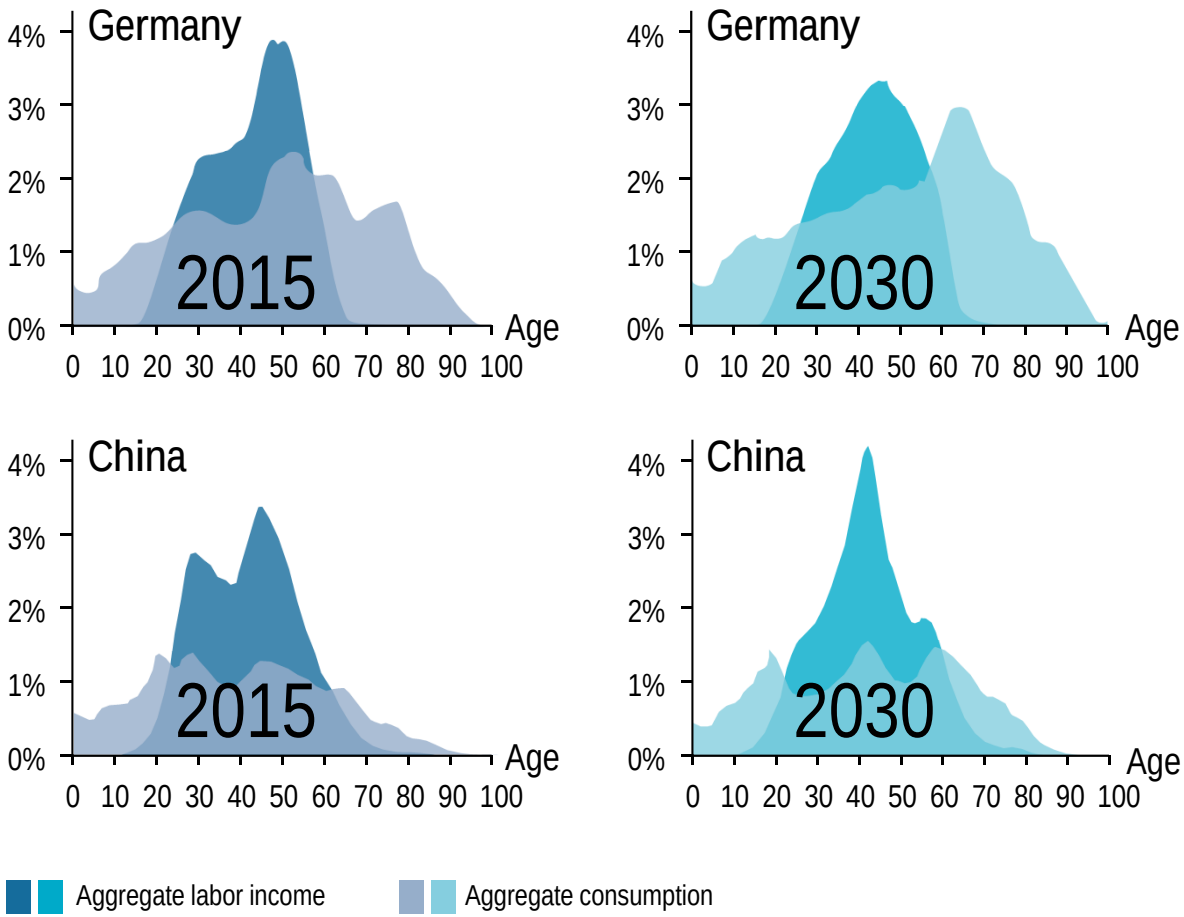


- Labor income and consumption levels **change during a person's lifetime**
- In **high-income countries** consumption **increases markedly from the age of 80** as the elderly save less and spend more (e.g. on health-care/care in general)
- In **developing countries, by contrast, spending decreases in old age** as levels of savings and social security payments are generally lower; family members often take care of the elderly

Source: National Transfer Accounts

As a consequence, aggregate consumption shifts to the elderly thus rising in total – A chance to reduce trade surpluses

Share of aggregate consumption and labor income by age [% of total, years]

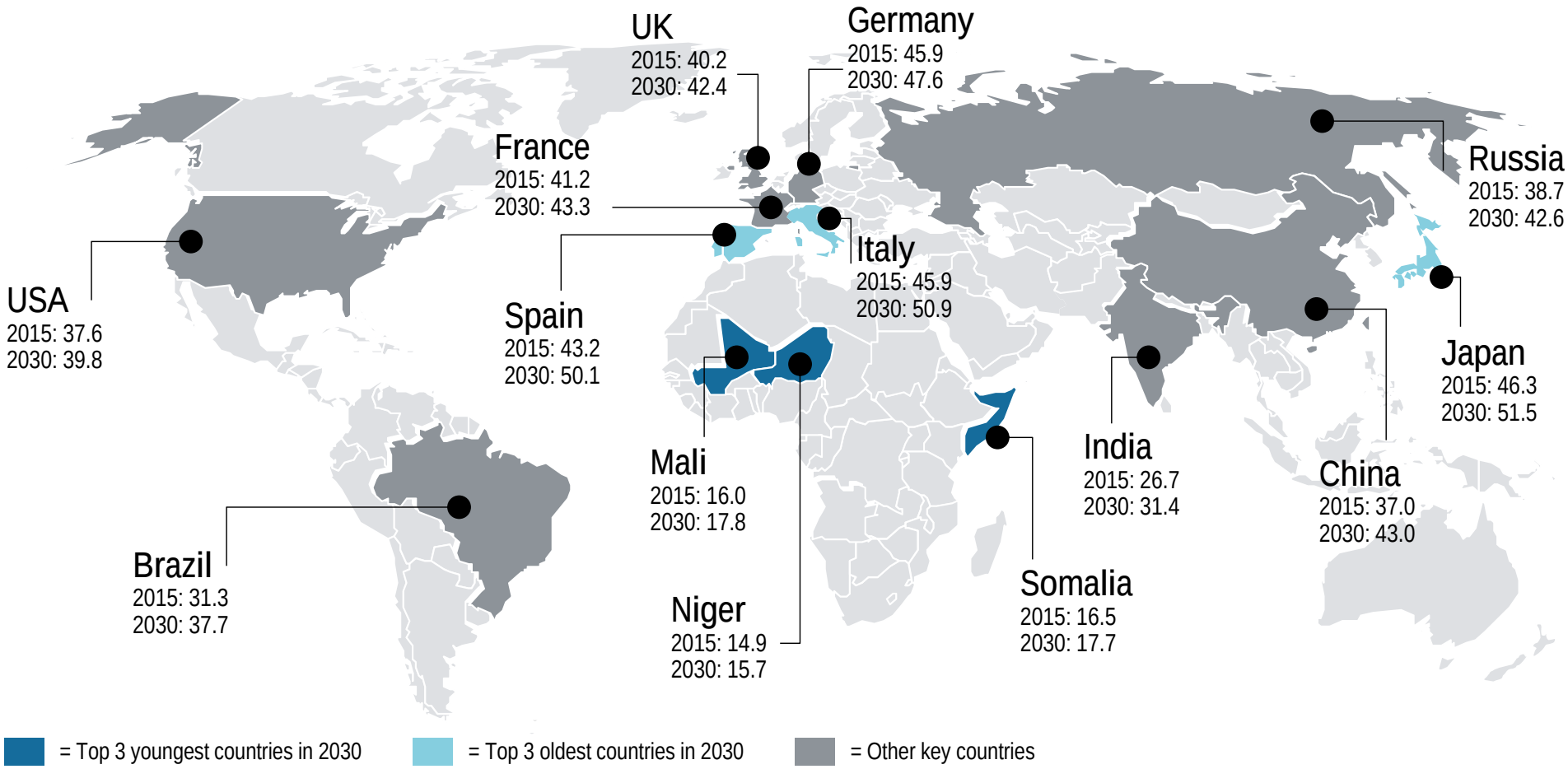


- As consumption levels vary according to age, **changing age structures affect national patterns of consumption**
- In **Germany**, with an aging population, **aggregated consumption of the over 60s is increasing** by 2030
- Aggregate consumption by age group in 2030 is also changing in **China**. The **distribution of the curve becomes broader** – especially the 60+ cohort is gaining importance in terms of spending
- As a consequence, **domestic demand will rise** leading almost certainly to an **increase in imports** – a chance to **reduce the trade surplus** of strong export nations such as Germany and China

Source: National Transfer Accounts

Huge age disparities: In 2030, more than half of Niger's population will be under 16, while more than half of Japan's will be over 51

Key countries in terms of youngest and oldest population in 2030 by median age [years]



Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection

Source: UN DESA

While the very youthful countries are all located in Sub-Saharan Africa, almost all of the sharply aging countries are European

Very youthful countries

> The **very youthful countries**[1] are all located in **Sub-Saharan Africa**, mostly facing **low levels of life expectancy** as well as **very high fertility rates**. Thus, some of the most youthful countries are also some of the **fastest growing ones**, for example Niger, the United Republic of Tanzania, the Democratic Republic of Congo and Uganda

> The median age of the **most youthful country**, **Niger**, is currently 14.9 years and it will only increase to **15.7 years in 2030**. This means that for the next 15 years, more than half of the population of Niger will be younger than 16 years

> The big challenge in these countries is to provide the people with better standards of **education and adequate job opportunities**

Aging countries

> Except for Japan, the Republic of Korea and Singapore, all the **sharply aging countries**[2] are located in **Europe**. The main reasons for these aging populations are **very high levels of life expectancy** combined with **very low fertility rates**

> The **median age** of the fastest-aging country **Japan** will be **51.5 years in 2030**

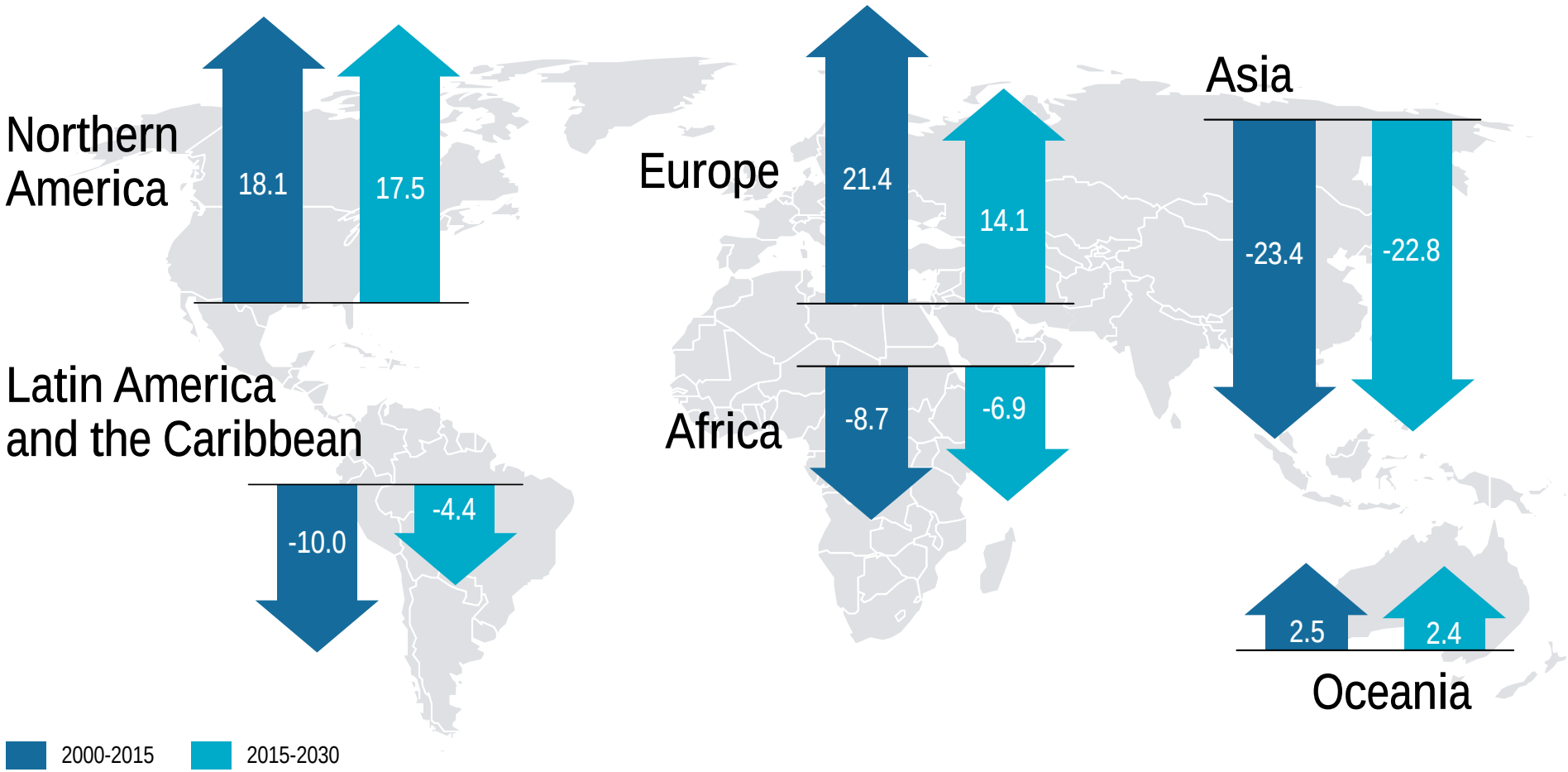
> The biggest challenges in aging countries is how to **finance the pension**, **health and social security systems** in the future

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection 1) 15 youngest countries ranked by median age in 2030: Niger, Somalia, Mali, Uganda, Angola, Chad, Democratic Republic of the Congo, Burundi, United Republic of Tanzania, Zambia, Burkina Faso, Mozambique, Gambia, Nigeria, Timor-Leste 2) 15 oldest countries ranked by median age in 2030: Japan, Italy, Spain, Portugal, Greece, Slovenia, Republic of Korea, Germany, Bulgaria, Singapore, Czech Republic, Croatia, Austria, Poland and Hungary

Source: UN DESA

International migration flows remain, but are slightly slowing towards 2030

Selected net migration 2000-2015 vs. 2015-2030 [m]



Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection

Source: UN DESA

Continent wise, most migrants come from Asia while North America and Europe remain key destinations

International migration trends by regions

> The period between 2015 and 2030 sees a net migration of an estimated 35 million people moving from less developed countries to developed ones with nearly 40% of these coming from least developed countries. However, net migration is slowing down as the corresponding figure between 2000 and 2015 was estimated at 43 million people. The net migration figures do not include movements within a region or people returning within the given time period

> Per continent, North America (+18 million), Europe (+14 million) and Oceania (+2 million) will experience net immigration, while Asia (-23 million), Latin America and the Caribbean (-4 million) and Africa (-7 million) will experience net emigration between 2015 and 2030. Even though most immigrants come from Asia, Asia and Africa have the same net migration rate of -0.3% per 1,000 inhabitants

> Europe's international migration will slow down the most. Europe showed the greatest international net migration between 2000 and 2015 (+21 million) but expects this to drop down to +14 million between 2015 and 2030. In North America the numbers stay relatively stable at 18 million for both time periods. Latin America and the Caribbean are set to more than halve their number from -10 million migrants between 2000 and 2015 to -4 million between 2015 and 2030

> In developed countries, this corresponds to a net migration rate of approx. 1.8 per 1,000 inhabitants between 2015 and 2030 and around -0.3 in developing countries. North America (+3.1) and Oceania (+3.6) have the highest net migration rates of all continents, almost threefold the European level of +1.3

> According to the UN key migration challenges comprise the need to ensure safe migration, to enhance mechanisms to protect migrants' human rights, to effectively manage migrant flows and employment, and to respond to the economic and social needs of developing and least developed countries

Notes: Data from the UN World Population Prospects: The 2017 Revision; estimates are based on the medium-variant projection

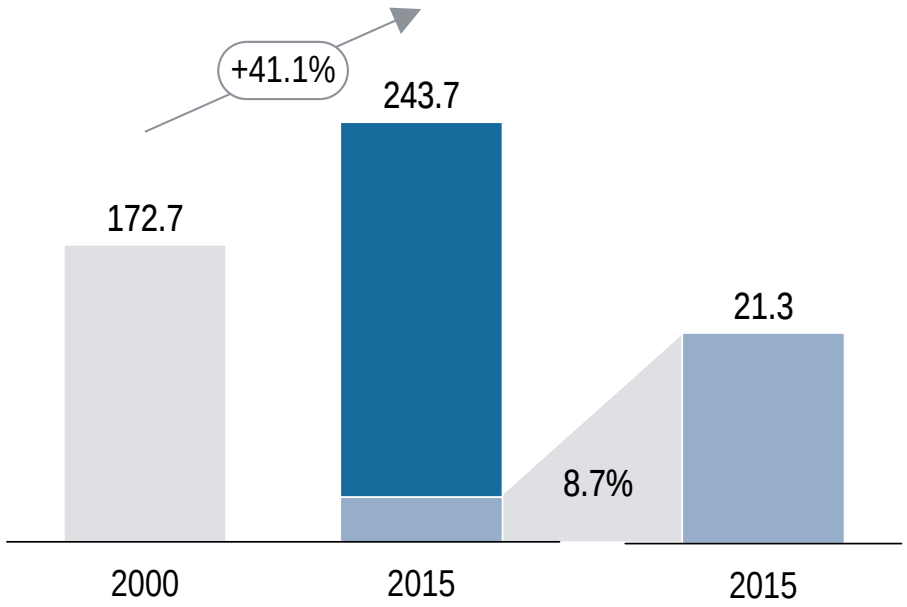
Source: UN DESA

Refugees only comprise a minority of the total number of international migrants – Most of them come from just four areas

Development of international migrants[1] and refugees[2] [m]

Migrants

Refugees



- Out of the 244 million international migrants in 2015, about 8.7% (21.3 million) **were refugees**
- **5.2 million** of these refugees were **Palestinians** (incl. Palestinian population in the Gaza Strip and West Bank; services to Palestinian refugees are provided by UNRWA)
- The remainder of **16.1 million refugees** are under UNHCR's mandate. **54% of these refugees** came from only three countries – **Syria** (4.9 million), **Afghanistan** (2.7 million) and **Somalia** (1.1 million)
- An **additional 41 million** people in 2015 were **internally displaced** due to conflict and violence

1) According to the UN definition an international migrant is any person who changes his or her country of usual residence for a period of at least three months 2) Refugees are people fleeing conflict or persecution. They are defined and protected in international law, and must not be expelled or returned to situations where their life and freedom are at risk

Source: UN DESA, UNRWA, UNHCR

The reasons for international migration are manifold comprising economic, demographic, political, social and environmental factors

International Migration

> Currently, **3.3% of the world's population** (244 million people, up by 41% since 2000) live as **migrants**[1)] in foreign countries

> Nearly 60% of the world's international migrants reside in either **Europe or North America**

> Reasons for international migration are multicausal. **Economic and demographic asymmetries** across countries are likely to remain powerful generators of international migration over the medium term. Other reasons for migration are **political factors** like conflicts, persecution or other human rights violations, **social factors** such as being closer to family and friends, a better **education system** in target countries or **environmental factors** like the threat of natural disasters

> Migration will remain a global topic in the future. The globalization of production and labor markets drives the international **movement of labor**, while improved transportation and technologies enable to migrate faster and over greater distances

> Although the focus of the media and the public often zooms in on refugees, the number of internally displaced people (IDP, migrants within a country) is much higher. At the end of 2015 as a result of conflict and violence, there were **40.8 million IDPs worldwide** – almost twice the number of refugees. Moreover, there were 19.2 million new internal displacements due to disasters in 2015 alone. The total stock of IDP caused by disasters however is unknown

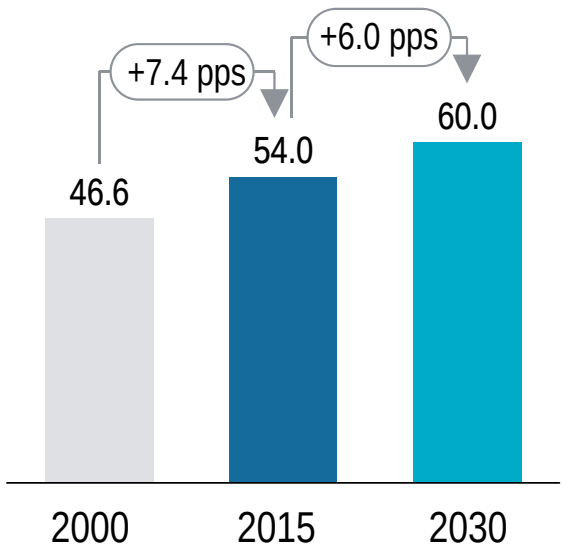
1) According to the UN definition an international migrant is any person who changes his or her country of usual residence for a period of at least 3 months

Source: UN, UNRWA, UNHCR, iDMC/NRC

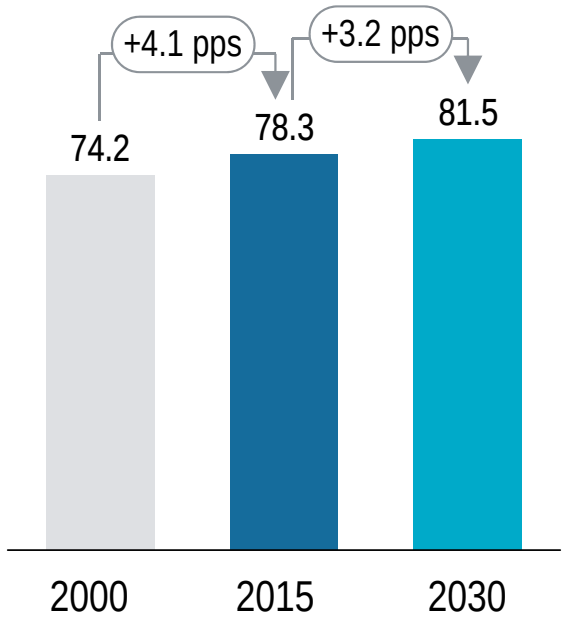
Changing living conditions increase the number of people living in urban areas worldwide, especially in developing regions

Development of the share of people living in urban areas[1] [%, %-points (pps)]

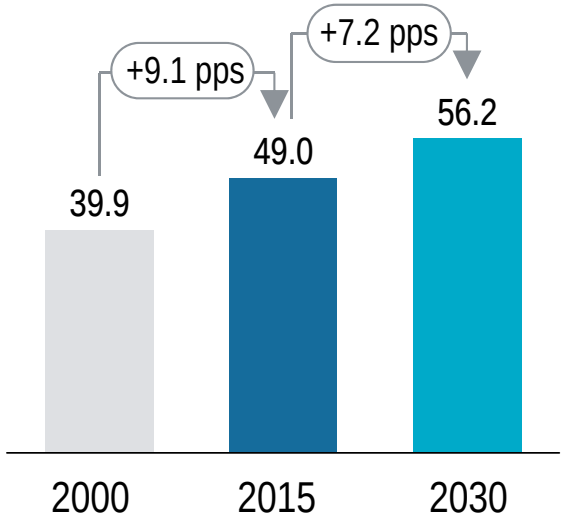
World



Developed



Developing



Notes: Data from the UN World Urbanization Prospects: The 2014 Revision (latest); estimates are based on the medium-variant projection 1) The definition of urban areas follows the definitions that are used in each country. These definitions can vary widely. The criteria for classifying an area as urban may be based on one or a combination of characteristics, such as: a minimum population threshold, population density, proportion employed in non-agricultural sectors, the presence of infrastructure such as paved roads, electricity, piped water or sewers, and the presence of education or health services

Source: UN DESA

By 2030, 94% of the total growth in urban population will take place in developing countries, where more and more megacities arise

World

> The urban population will **continue to grow**. By 2030, 60% of the world's population will live in urban areas, up from 54% today[1)]

> The **absolute number** of people living in urban areas will **increase by more than 1.1 billion people** (as a result of absolute population growth and the growing share of the urban population by 2030). By contrast and due to the expansion of urbanization, the absolute number of people living in rural areas will not change significantly

Developed vs. developing countries

> While **in developed countries** 78% of the population lived in **urban areas** in 2015, only around 49% of people did so in **developing countries**. However, **this considerable gap will narrow only slightly** due to the **strong urbanization process in developing countries**. By 2030, **almost** 82% of the population in developed countries and 56% of the population in developing countries will live in urban areas

> In **absolute numbers** this means that between 2015 and 2030, the number of people living in urban areas in **developing countries** will rise by **more than 1 billion people**, whereas **developed countries will** only experience an increase of 68 **million people**

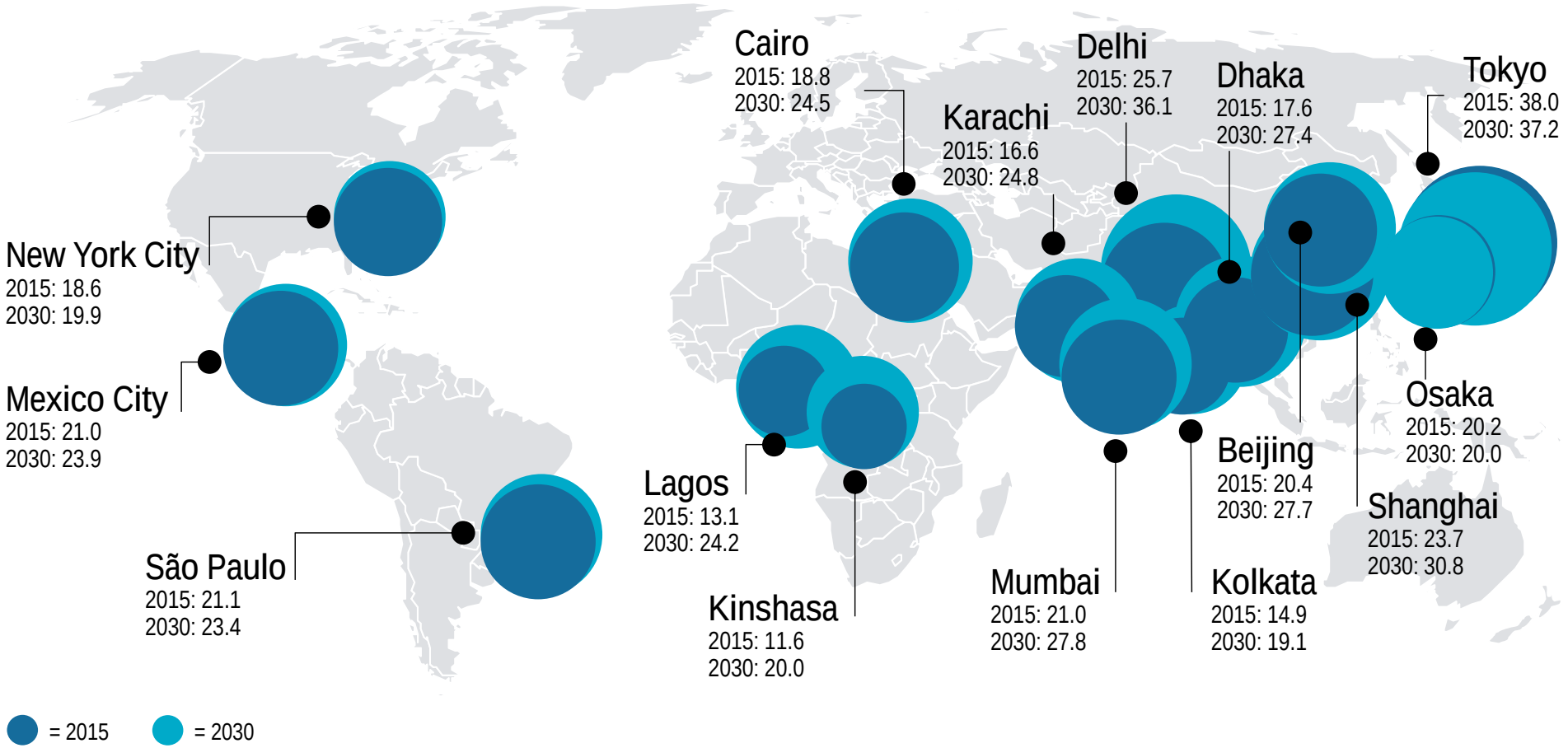
> Consequently, the big challenge for developing countries will be **how to cope** with this massive inflow of people to urban agglomerations. Providing adequate **infrastructure** to the fastest growing cities will be a tough job requiring the cooperation of governmental and non-governmental players

Notes: Data from the UN World Urbanization Prospects: The 2014 Revision (latest) 1) Annual percentage of population at mid-year residing in urban areas

Source: UN DESA

By 2030, more than half of the 15 biggest urban agglomerations will be located in Asia, with Tokyo still being the largest megacity of all

Population development of the 15 biggest urban agglomerations[1] to 2030 [m]



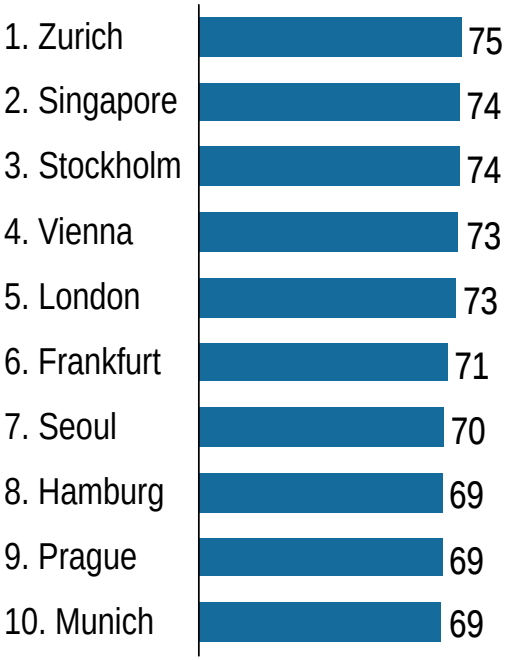
Notes: Data from the UN World Urbanization Prospects: The 2014 Revision (latest) 1) 15 biggest urban agglomerations in 2030 in descending order: Tokyo, Delhi, Shanghai, Mumbai (Bombay), Beijing, Dhaka, Karachi, Cairo, Lagos, Mexico City, São Paulo, Kinshasa, Osaka, New York City and Kolkata

Source: UN DESA

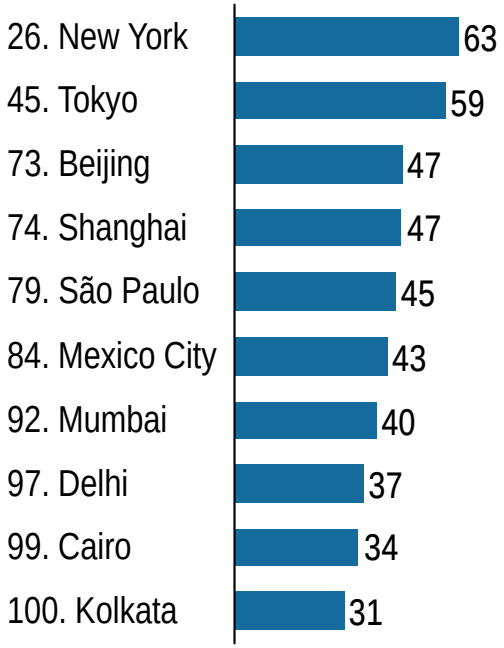
Megacities are performing poorly in terms of sustainability compared to a peer group of 100 leading global cities

Sustainable Cities Index 2016 [score out of 100][1)]

Top 10



Megacities[2)]



- Well-established **European cities placed on 13 of the top 15 positions** dominate the top of the ranking, only reached by two Asian cities, Singapore and Seoul
- Generally, **many cities** around the world are **not effectively balancing the three dimensions of sustainability** and show split results, e.g. Singapore and Hong Kong are ranked highly in profit performance, which seems to be straining social sustainability
- **Emerging and fast growing cities** in Asia, Latin America, Africa and the Middle East are **mostly ranked in the fourth quartile** facing a **huge amount of challenges** in each of the three sustainability areas

1) The 2016 Arcadis Sustainable Cities Index ranks 100 global cities on three dimensions of sustainability: People, Planet and Profit. These represent social, environmental and economic sustainability to offer an indicative picture of the health and wealth of cities for the present and the future 2) The Sustainable Cities Index is available for 10 of the 15 biggest urban agglomerations (not included: Lagos, Kinshasa, Karachi, Dhaka and Osaka)

Source: Arcadis

Megacities face many challenges that must be solved to ensure a decent quality of life

Sufficient resources:

Urbanization often has a negative effect on the **availability and quality of water resources**. There are two factors that provoke particular difficulties: groundwater levels and groundwater pollution

Energy supply:

Cities account for two thirds of **global energy consumption** rising to around **three fourths by 2030**. A challenge for megacities is to find a smart solutions to ensure a sufficient energy supply while lowering carbon emissions

Traffic and mobility:

In 1970, there were around 200 million cars worldwide. By 2030, this number is predicted to multiply to around **1.6 billion vehicles**, causing **heavy air pollution** and **traffic congestion**

Waste management:

In rapidly growing megacities, **industry expansion** and **changing consumer behavior** are provoking uncontrollable **amounts of waste**. Organizing effective waste **disposal systems is a major challenge** for each megacity

Security:

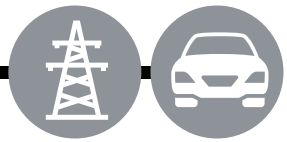
Crime is the most serious security issue in metropolises. Uncontrolled expansion of low income population with poor prospects can lead to an increase in **robbery and assaults**, which is difficult to curtail

Source: LMC Automotive, IEA

Top ranked cities showcase measures that could also be applied by growing megacities helping to improve their sustainability

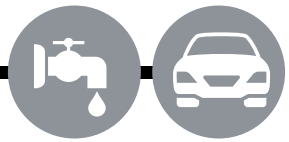
Examples of sustainable city development actions

Zurich



> Zurich is investing in and focusing on energy efficiency, renewable energy, sustainable buildings and mobility for the future to achieve its own goal of becoming a 2000-watt-society (the global amount of energy used per capita established as "sustainable")
> Public transport in Zurich has a very high degree of coordination between trams, trains, buses and light rail making mobility quick and comfortable; the 'Zurich approach' is regarded as a sustainable model for other cities

Singapore



> Singapore tackles its projected strong population growth by investments improving mobility and connectivity within the city including the construction of new underground lines, the extension of existing MRT lines and a high-speed rail link between Singapore and Malaysia
> Goal to make at least 80% of all buildings "green" by 2030 to create a vibrant and resilient high-quality living environment, and resiliency investments to secure the water supply

Seoul

> The Korean capital has developed the 2030 Seoul plan including 139 projects in 13 districts aiming to transform Seoul into a "safe, warm, dreaming, breathing city"
> Implementation of urban renewal and river restoration projects: The previously polluted area of Cheonggyecheon has been trans-formed into a public recreational space
> Seoul is actively participating and globally exchanging sustainability expertise in the C40 and 100 Resilient Cities initiatives

Source: Arcadis

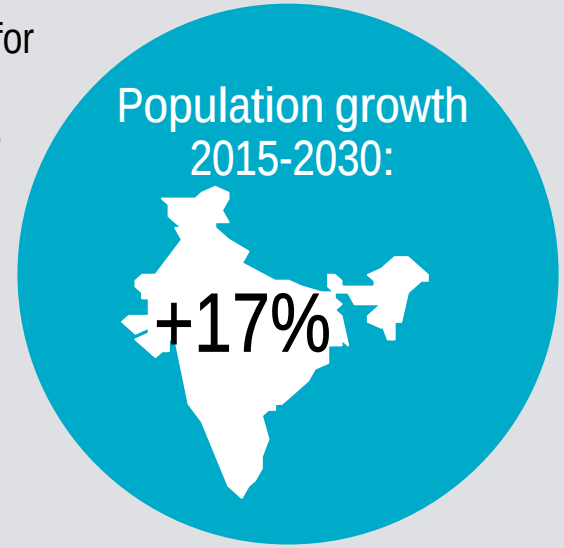
Focus on high-growth regions, but do not neglect countries simply because of their low or negative population growth

> While important **developed countries** (e.g. Japan or Germany) **show only slow, none or negative population growth** by 2030, companies must look for **new growth markets** to acquire new customers and make their business portfolio even **more international, prioritizing** expansion in growth regions

> In a best-case scenario, population growth is accompanied by rising GDP per capita: **India**, **China**, **Brazil**, **Mexico and Egypt** are countries that will see their population rise by more than 20 million people within the next 15 years and achieve real GDP per capita of over USD 12,000 in terms of PPP; China is set to achieve more than USD 27,000 and Mexico nearly USD 20,000. Besides these developing countries, the United States will also grow strongly by 35 million people with a GDP per capita of nearly 60,000 in PPP in 2030

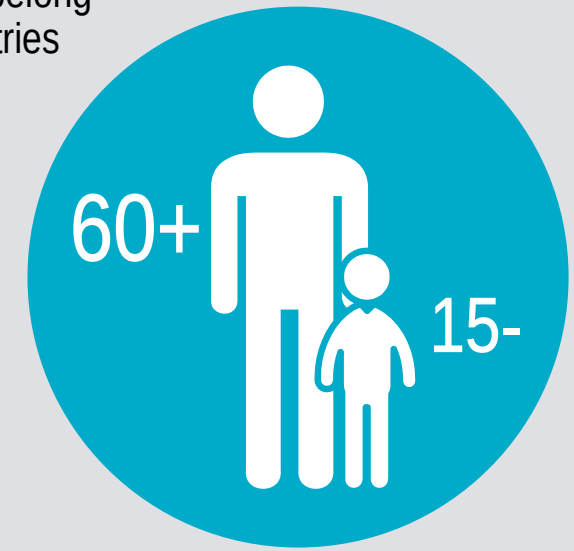
> The combination of a growing population and an increasing GDP is a strong indicator for the economic attractiveness of a country. Additionally, it is necessary to understand **different sectors** and industries within the country as well as **future customer needs**

> **Do not neglect or dismiss countries with slow or negative population growth because** many of these countries will **remain economic powerhouses** to 2030. This group of countries hugely benefits from its sound knowledge base (education and training) and innovational power – key factors which are not affected in the medium-term, offering growth and profit perspectives for companies. Additionally, new business opportunities for **specialty businesses** may arise e.g. new buildings adapted to the **needs of a smaller, aging population** or **restoring ecosystems**



Adapt to the 60+ generation – Additionally educate and train young people in the least developed countries

- In many developed countries, people aged 60 and over will constitute a very large cohort of the population. Companies need to focus on these customers by understanding their needs. This group characterized by higher levels of consumption, appreciates easy-to-use products and enjoys a wider service offering. However, although 60+, these customers dislike products branded for the elderly but enjoy certain features addressing the three S's: simplicity, service and safety
- With pension ages shifting, an increasing share of the working population will soon belong to the over-60 age group; it is important to adapt organizational structures and processes to tap into their experience
- Elsewhere, there are countries with very youthful populations. Nearly all of them belong to the group of least developed countries (Nigeria being an exception). These countries require good education and training and employment opportunities for the younger generation and may not yield a quick return on investment. Taking a longer term view, establishing yourself as a good trainer and employer, i.e. acting as a pioneer while benefitting from lower wages, can be key in these markets
- You can also tap into these younger markets and their improving economic situation by selling frugal products. Frugal products are designed for low- to mid-end market segments, usually characterized by a narrower set of functions



Benefit from immigration by honing your search for and application of international talent and experience

- Companies in many developed countries – especially those with a shrinking population – suffer from a **shortage of qualified staff**. This gap can only be filled by means of a **positive migration balance**. Companies have to **position** themselves **internationally as an attractive and diverse employer**
- A significant proportion of immigrants to developed countries is **highly qualified**. Companies should tap into this **talent pool** to **enhance and secure competitiveness** and to further **develop their business**. Furthermore, **governmental actions and regulatory policy should aim to support immigration of skilled workers** from around the world to **foster innovation and economic opportunities** for companies
- The **international experience of immigrants** makes companies **more diverse** and helps them to **expand abroad** more easily. An optimized combination of **diversity management** and **global recruiting and retention strategies** can lead to significant competitive advantages
- Immigrants can bring **new ideas and innovation** to a company. Coming from developing countries, they have insights into local or regional **customer needs** and how to **approach these customers**, e.g. with frugal products. In addition, they facilitate communication and cultural understanding within internationally operating companies

Build and operate urban infrastructure, use cities as trend laboratories and find smart solutions

- Growing cities have a **huge and varied demand for infrastructure and sustainable transport and mobility solutions**: from buildings, factories, roads, transport systems, public health infrastructure to water and waste management systems, and more. This is a great opportunity for **construction and facilities management companies**
- The need for new infrastructure and sustainable transport solutions is highest in growing cities in **developing countries which tend to underperform when it comes sustainability**. Requirements concern **basic infrastructure systems** for the poorest people living partly in disadvantaged areas or slums. Megacities in **emerging countries**, such as Beijing or Mumbai, face the added conundrum of also having to meet the demands of the **fast growing middle class**. Finally, megacities in **developed countries**, e.g. Tokyo or New York, need an infrastructure able to adapt to their **aging population** i.e. by **replacing and/or modernizing current infrastructure in place**. Companies must tailor their approach in these sectors to the specific needs of the city or agglomeration concerned
- Companies can utilize **cities as future trend laboratories**, tapping into the large number of metropolitan trendsetters. Equally, companies should develop and test **smart solutions**, as these products and services are urgently needed in growing cities with limited living space
- Nevertheless, a **relevant share of people** will continue to live in **rural areas** which tend to suffer from **over-aging**, particularly in developed countries. **Addressing the needs of this specific target group** yields a lot of opportunities for companies, particularly those offering elderly-orientated goods and services, and those in health care and insurance and similar industries

Key sources and further reading (1/2)

Most important sources

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Please contact us if you have any questions or comments – Six more megatrend insights await on our website

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Trend Compendium

https://www.rolandberger.com/en/Dossiers/Trend-Compendium.html

The bigger picture for a better strategy

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