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I. EXECUTIVE SUMMARY



The future is not pre-determined. A number of variables are at play in how it shapes out. So, what is the future for international migration and human mobility? Four scenarios, developed by a team of more than 50 individuals, reveal very distinct outlooks. From a general perspective, the scenarios can be summarised as follows:

- Extensive borders, reduced mobility: My Country first!
- Collapse of nations, migration for sheer survival: World on fire
- Inclusive and sustainable development, recognition of the benefits
 - of migration: Opening roads
- IT-planned and controlled world, reduced need for migrant workers: **Technopoly**

Migration and mobility are strongly influenced, 'shaped' by context, and only to a lesser degree are they 'shapers' of context. Migration is today a contentious issue, and despite efforts towards a common approach through the Global Compacts on refugees and for safe orderly and regular migration, there is no unified vision on the future.

The scenarios illustrate strong dichotomies: who sets national migration policy and the value attributed to migrants determines the nature of the scenarios. Intriguingly, this analysis also shows the risk of preferred outlooks potentially slipping into less desirable futures.

The multiple futures expressed in these scenarios do not represent a 'palette' of future worlds from which to pick and choose the preferred ones while discarding the information contained in the less desirable worlds. A set of scenarios offers multiple views of possible futures, and it is relevant in its entirety given the recognized limitations of linear trends to map out future perspectives. Since the future is uncertain, multiple futures are empowering – they open minds to the varied possibilities ahead and require critical reflection on the tools to address these possibilities.

The scenarios presented here are deemed to be plausible by the scenario building team. Their stories provide an opportunity to assess policies, plans and strategies under any scenario: each one scenario could materialise, whether we like it or not. Indeed, the future could reflect a combination of all four scenarios, illustrating the importance of using the scenarios as a set, in order to appreciate the possible diversity ahead. By exploring a range of options, it is possible to prepare for them.

2. WHY SCENARIOS ON MIGRATION?



Migration is a natural process and is as old as life on the planet. People have always been on the move for many different reasons and have migrated in all regions of the world. While it proved surprisingly challenging to address migration only a few years ago, for lack of global interest, today it has reached the top of the political and social agenda across the globe. The tough truth for the political prominence of migration lies in the political expediency it affords and a shift to the political right it may have unleashed. Migration is now at the top of the agenda as an "event", not as an outcome of decisions. This risks making the debate dangerously shallow and utilitarian. The realisation that, like in all complex matters, it is reductive to consider only the events, it became obvious that exploring international migration and human mobility through scenarios would offer a more productive assessment.

The critical guiding question that shapes the scenarios and their thinking is the following: "What future for international migration and human mobility?" This means taking a close look at the structural causes at the historical heart of migration and understanding how they might evolve to shape the future of migration and mobility.

Throughout the course of the scenario building process it has become clear that there is no universal quality attached to migration: when it comes to elimination of deadly diseases or ensuring peace, there is a consensus on what the future should look like. However, on international migration and mobility opinions vary depending on whom one asks. Some people wish to see more and freer mobility, others prefer reduction and limitation. Some people think societies are more successful if they are more homogeneous, while others believe in the virtues of multicultural societies. The following quotes from scenario team members highlight the different perceptions:

"A positive future would be one in which there is much more control over migration movements and a much tighter limit on people moving permanently."

"I imagine there will be electoral representation of all residents in about 30-40 years' time. There should be no taxation without representation."

These scenarios on the future of international migration and human mobility takes the premise that over the next 15 to 20 years, very different futures for global migration may unfold. The development of different migration determinants, or drivers, with policies in destination countries will be among the key uncertain variables, but by no means the only one. Given that international migration and human mobility are driven by a combination of predictable trends (e.g. demography) and factors that are both fast and slow to change, a mid-term perspective is likely to give valuable insights into what is possibly going to happen, if certain roads, e.g. in global migration governance, are taken or not taken.

Scenarios are descriptions, creating an understanding of the wider context and offering insights about possible events that will impact the future of migration and mobility. Scenarios are tools, like maps, that allow us to explore a range of diverse and possible tomorrows. We gain a map illustrating the landmarks visible on the way to our destinations. This map provides an early warning system by allowing us to recognize when we are veering off course — when certain landmarks do not appear, or are from other landscapes. In this way, we understand change as it happens. Scenarios to develop migration futures is a tool to sharpen our awareness of courses of action or approaches to migration governance and the awareness of the need for policy coherence between migration governance and other policy areas, if we want to achieve the 2030 Agenda.

Aimed at decision-makers and policy makers, scenarios offer a platform for leadership, advocacy and negotiation. They seek to provide a shared understanding for diverse viewpoints to discuss priorities, opportunities and potential pitfalls, and to plan work together in a world of complex issues – problems that may have more than one solution. Scenarios are especially useful for thinking about ambitious goals or complex interventions in an interconnected world where leadership, financing mechanisms, values and norms are rapidly changing. Hence, scenarios for the future of migration and human mobility allow for a clearer, more logical understanding of the interactions, level of importance and possible outcomes of a series of events that otherwise might be overlooked.

The International Organization for Migration, the Friedrich-Ebert-Stiftung and Global Future have formed a partnership to generate thinking about the future of migration and mobility and to convene a range of experts and stakeholders to provide their input. Hence, it is the product of this process that is represented here; the scenarios are not mandated by any organisation. Ultimately, the document is a means for the reader to gain insights into the thinking generated by the scenario building team and appreciate the fact that the future is fundamentally uncertain although we can influence its course.

3. FOUR SCENARIOS – A WINDOW TO THE FUTURE

3.1 MY COUNTRY FIRST!



My Country first! The scenario in brief

My Country First! is about involution and a global shift away from the post-WW2 liberal world order. It reflects the rise of emerging Asia and the concomitant relative decline of the former champions of this order, the United States and Europe. The latter experience an ongoing political backlash against perceived unchecked globalization, attendant inequalities and cultural alienation. In the name of sovereignty and self-determination nationalist governments that claim to put the interests of their own nationals first, effectively managed to reduce immigration from poorer regions into their territories to a trickle.

Apart from highly restrictive and ruthlessly enforced immigration policies ("Fortress Europe") this has worked for two additional reasons.

Firstly, emerging economies mainly from Asia, China in particular, have effectively replaced the former global hegemons as the centers of global economic activity. In filling the void left by Europe and the US they have become increasingly attractive for labour migration, especially from Africa. This continent keeps on registering by far the highest population growth globally, therefore harboring also the highest percentage of potential migrants, world-wide. Secondly, and even more importantly, both old and new powers have engineered an effective economic take-off in parts of Africa, sometimes jointly, sometimes in competition to each other. This has tremendously alleviated the migration pressure out of the African continent. However, for African nations, the economic benefits, economic growth and in particular employment, often come with a loss of sovereignty: much of this development happens in special economic zones ("charter cities") under the authority of foreign companies and agencies from both the new economic giants and the former colonial powers.

My Country first! The World of Migration in 2030

International instruments to manage orderly, safe and regular migration, such as the Global Compact for Migration and the Global Compact on Refugees both officially adopted in 2018 by the UN General Assembly, do not play any role as they are largely ignored by most of the traditional destination countries in the global North.

UN agencies working on migration and human mobility are starved off funds and largely ineffective after having to lay off the bulk of their personnel.

Apart from seeking to attract "high potentials", most Western countries have in the meantime effectively closed their doors to "unwanted" immigration, which refers to both economic migrants from poor countries in Africa or Central America as well as refugees from zones of armed conflict.

A large fleet of frigates and navy patrol boats from participating EU member states with a robust mandate is now effectively cordoning off what has now become "Fortress Europe" in all but name. Meanwhile, the US had passed a series of new laws restricting immigration which among other things had made it a criminal offense to employ, provide shelter to or otherwise support 'illegal aliens'.

Only a small number of developed countries are experimenting with market-based immigration management policies, providing work and permanent resident permits for which selected migrants need to pay an "entrance fee". Most of them do not see the need for low-wage, low-skilled labour from abroad even in the face of an aging population and a shrinking labour force due to technical advances in digitization and artificial intelligence.

Refugee camps, migrant detention and asylum processing facilities have all been transferred to locations in transit countries, and even countries of origin of migrants, especially in Africa; but in Latin America such centres also exist.

Africa remains the continent with the highest number of people that are ready to migrate for economic, conflict or climate reasons or simply to seek better life perspectives.

As a result of an accelerated economic development within Africa, most of the migration nowadays takes place across borders within Africa, mostly towards a number of new growth poles, mainly cities that have been particularly thriving as a result of new investment from abroad, parts of which was motivated politically in the quest to "combat the root-causes of flight and migration".

Migration out of the continent is secondary, but still important. As most avenues for migration towards traditional destination countries in Europe are effectively blocked, migration flows out of Africa have turned East mostly towards China, but also towards other countries such as India, Korea or Turkey that participate in the "new scramble for Africa" and as a quid-pro-quo accept labour migrants or traders from Africa on their soil.

The FOCAC (Forum on China-Africa Cooperation) 2021 Summit's agreement "on a Framework on migration for China and Africa" that subsequently led to the bilateral agreements between China and African states, as well as its India-Africa counterpart of 2022 are the only international agreements that currently provide a legal basis for orderly and safe migration from Africa, albeit mostly limited to temporary and circular migration of labour migrants.

My Country first! How this happened – the World to 2030

By 2030, the old Western-dominant multilateral rules-based international order has given way to a multipolar Asia-centered international system. Regional and bilateral arrangements prevail. These arrangements are based on national interest and mutual benefit, but absent of any normative human rights-based framework.

China has become the global number one economic power, as the world's largest economy, and also the world technological leader in a number of new industries as a result of the success of its "Made in China 2025" plan. It has dramatically increased its economic, political and cultural presence in all continents, but cautiously refrains from taking over the mantle and the political and military responsibilities of a global hegemon. Major geopolitical conflicts with other rising powers and the declining former hegemon, the United States, have thus

been avoided so far. It also does not seek to intervene in internal political affairs of partner countries, or promote regime change.

Beyond East and Central Asia and the new "Silk Road" corridors, China has in particular deepened its presence and strengthened its relationship with Sub-Saharan Africa, which it sees as its strategic commodity reserve. (Some pundits even refer to Africa as "its global backyard"). As part of a broader quid-pro-quo, this includes increased Chinese investment in Africa and the development of some "light-industrial hubs" in certain African countries, run by Chinese companies under Chinese law. Communities of hundreds of thousands African traders, that used to temporarily migrate to Guangzhou and other cities in Southern China since the 2010s, were allowed to take up permanent residence with their families in China. In addition, existing bilateral "investment, migration and friendship treaties", between most of the African countries and China, are now linking the free movement of Chinese nationals, as service suppliers (in line with to GATS Mode 4), in exchange to the temporary movement of African "guest workers" to China. In what has become a "new scramble for Africa", India, Brazil, Korea, Turkey and others were pursuing similar arrangements. Such arrangements have led to the presence of large African communities in their respective countries.

The formerly dominant Western powers, bar a few exceptions, have all seen a political shift to the right. These Western powers were characterized by rapidly aging, numerically shrinking, socially conservative and economically nationalistic societies, and to different degrees openly authoritarian and illiberal regimes. Rather surprisingly, these regimes have been able to maintain fairly stable political majorities, in many instances for a decade and more. They are usually based on coalitions of migration-sceptic elderly and middle class voters, predominantly in small towns and rural areas and the former losers of erstwhile "hyper-globalization", among them large segments of the formerly unemployed youth. These groups support both their more inward-looking economic policies supposed to favour nationals - which in most countries come along with strong redistributive fiscal and social policies (with the notable exception of the United States and a few others) - and their focus on security and policing in combination with highly restrictive approaches to immigration and strong pressures on foreign nationals to either assimilate or leave their countries. At the same time, cultural movements that call for the defense of "national identity", "religious values" or "the Western civilization" are thriving.

Even so their economic performances overall remain lackluster, with growth rates constantly well below global average, most of these countries, nevertheless, registered some notable successes in dealing with previous economic inequalities and insecurities within their respective countries. These successes were achieved by a mix of unorthodox protectionist policies, active labour market policies, progressive taxation, public sector employment and, in some cases, temporary public work programmes.

Overall, most of them managed reasonably well the alignment of the digitisation and increasing robotisation of their economies with the challenges of an aging population and a shrinking labour force. The need for unskilled labour from abroad has therefore shrunk to practically nil in quite a number of the advanced economies. The ongoing need for highly skilled labour continues to be actively addressed by narrowly-targeted immigration policies, albeit with very mixed results. Apart from seeking to attract "high potentials", most Western countries have in the meantime effectively closed their doors to "unwanted" immigration. Only a small number of them are experimenting with market-based immigration management policies, charging "entrance fees" to would-be migrants. Apart from controlling the numbers, such fees are supposed to cover the long-run costs of immigration and pay for the use of public goods (schools, health, roads, justice system etc.) in exchange for an unlimited work and residence permit.

Internationally, most of the Western countries no longer openly support and advocate the notion of the universality of human rights, which they had vigorously pushed for over 70 years after WWII. As far as existing international regimes and obligations are concerned, most of them have adopted a "multilateralism-à-la-carte-approach", i.e. by only participating in global arrangements they also see in their national interest, or where they feel that "free-riding" would be too dangerous (e.g. the Paris climate convention). Some have even pulled out of UN conventions they had previously signed. Some Eastern European EU-members, for instance, no longer recognize the 1951 Geneva Refugee Convention, which they say "does not reflect the realities of the 21st century". Neither the Global Compact for Migration nor the Global Compact on Refugees that were both officially adopted 2018 by the UN General Assembly have therefore been implemented to any significant degree due to the non-compliance of most of the traditional destination countries. The United Nations in

general, but in particular the UN agencies dealing with humanitarian matters, migration and human rights, had suffered severe budget cuts, after the US, Japan and most of the European, including the Nordic countries, had eliminated almost all voluntary contributions. The voluntary contributions, previously, accounted for more than half of their budgets.

In the United States successive federal administrations in the wake of the first Trump administration in 2017 had significantly reinforced the border fortifications towards Mexico, even so Donald Trump's election promise of building a "great wall" never materialized. The US also passed a series of new laws restricting immigration which among other things had made it a criminal offense to employ, provide shelter to or otherwise support 'illegal aliens'. Immigration from South of the US border has therefore come to an almost complete halt.

After the Brexit and a series of further crises, the EU member states have managed to stay together in a what some political scientists now describe as a "confederation of European nation states", emphasizing the subsidiarity principle and allowing for multiple 'opt-outs' from common rules, including temporary opt-outs from the "four freedoms" (i.e. the free movement of people), or more generally for an integration of different speeds. Economic integration has weakened (especially after three Southern European countries had left the common currency in the wake of the financial crisis of 2021) and became more shallow, (but also widened, to include non-members like the UK and Ukraine together with Turkey, in a customs union), In contrast, governmental cooperation in security and foreign policy matters has significantly deepened among a core group of member states.

Although the Schengen regime for the abolition of internal border controls remains suspended sine die, the push for an additional common external border control in the Mediterranean has continued over the years and yielded results. A large fleet of frigates and navy patrol boats from participating member states with a robust mandate is now effectively cordoning off what has now openly become "Fortress Europe". This military border control has been underpinned by largely successful bilateral deals with various North African und Sub-Saharan African countries, both countries of origin of migrants and migration transition countries. These countries receive massive investments into their infrastructure and support for the transformation of, previously established, refugee camps, immigration detention and asylum processing facilities into "charter cities". The support and investment is provided in exchange for these countries' acceptance to take back their nationals and actively cooperating in keeping away possible migrants from European soil.

Africa in 2030, in particular Sub-Saharan Africa, continues to be the world region with the fastest growing population, although UN demographers now see signs of the long-awaited and much-needed "demographic transition" towards significantly lower fertility rates, as a result of economic development, better education for girls and women and a massive increase in aid-funded public birth-control programmes. Still projections are that by 2050 about 2 billion people would live in Sub-Saharan Africa, after the population has increased fivefold from 180 to 980 million between 1950 and 2015. The number of people in the age 15 to 19, who are starting their active lives and need jobs, are still four to five times higher as those in the age group of 55 to 59, i.e. those who are approaching retirement age. Hence, without a surge in new opportunities, both the potential for conflict about resources and positions as well as the pressure towards migration remains high. These pressures are uneven between various countries or various parts of Africa, depending on the level of industrialization.

Some economic dynamism with average growth rates per capita of more than 3 percent over the last decade was brought about by regional integration in the form of a Continental Free Trade Area (CFTA), substantial investment in cross-border infrastructure - mostly funded through anti-migration deals with the EU in the quest to "combat the root-causes of flight and migration" - as well as through industrial and agricultural investment from China and other emerging powers such as India, Brazil, Korea or Turkey all of which provided much-needed employment opportunities in various parts of Africa. However, weak and often corrupt governments have remained a major bottleneck to economic development in some parts.

This was why the idea of "Charter Cities" had finally been taken on. Free or Charter Cities are territories or "special economic zones" for which complete legal and political authority over that territory is temporarily handed over by the state to a consortium of stakeholders / developers through a long-term lease agreement (of 30 to 50 years). Under a regime of self-government separate laws, or even the complete legal system of a

third country, are adopted and applied. Initially piloted at a major registration center for migrants ("hotspot") in Libya in 2021, Charter Cities in Africa have multiplied in the second half of the 2020s. Of the 12 Charter Cities that legally exist at the moment, already eight have developed into important regional economic growth poles, with more than a half a million inhabitants each. They are characterized by clusters of light-industry as their economic base, and tens of thousands of daily commuters from the surrounding areas, often including from across the border from neighboring countries. More than half of them had been built in provincial towns that had previously hosted asylum processing centers; international business consortia and private relief organizations jointly manage them. They are funded by large insurance and pension funds from the US, China, Europe and elsewhere, financially guaranteed in part through the World Bank's Multilateral Investment Guarantee Agency in conjunction with EU member states. These together with the UAE, Brazil, Canada, Singapore and Turkey had initially provided the personnel for the tax authorities, the justice system and the law enforcement agencies.

While economic prosperity around the different growth poles including Charter Cities attracted a lot of internal migrants as well as migrants from neighboring African countries to these new development hubs, major migration pressure that seeks outlets beyond the continent continues to persist. Neither the Global Compact for Migration nor the Global Compact on Refugees had any real effect on the traditional destination countries of the global North, who continue to largely have very selective migration schemes. Therefore the FOCAC (Forum on China-Africa Cooperation) 2021 Summit's agreement "on a Framework on migration for China and Africa" that subsequently led to the bilateral agreements mentioned above, as well as its India-Africa counterpart of 2022 are the only international agreements that currently provide a legal basis for orderly and safe migration from Africa, albeit mostly limited to temporary and circular migration of labour migrants.

Refugee flows caused by armed conflict remain a constant feature globally. However, the violent military conflicts in the Middle East of the 2010s with their epicenter in Syria, and exacerbated by the emergence of the so-called "Islamic State" (IS) or "Daesh" have been firmly under control for a long time now. After IS was defeated militarily and their command structures completely annihilated in 2020, Russia, Iran, Turkey and Saudi Arabia subsequently brokered a deal resulting in loosely confederated "mini-states" under the joint protection of their authority.

This provided former Iraq with another peace process, resulting in a federation. In a donors conference in 2022, major pledges had been made for the funding of the reconstruction and the development of all formerly war-torn countries in the Middle East (including, inter alia, Yemen) in what was then dubbed a "Marshall Plan for the Middle East". As a result refugees from the Middle East started to travel back into their home countries as of 2023, which led to a significant inflow of returnees over most of the following years.

My Country first! A personal story

Interviewer: Ladies and gentlemen... Please settle down... Thank you. Please join me in welcoming Dr Khan once more to our programme. As you know, Dr Khan has been the United Nations Secretary General for the past three years, since 2026. She is the first woman to hold the post of Secretary General and the first national of a middle-eastern country. Prior to her appointment Dr Khan spent ten years leading a think tank in Amman, Jordan, promoting inclusion, acceptance and transboundary politics. She has been pivotal to addressing the tide of isolationism that has prevailed around the world for so long. We talk to Dr Khan tonight to better understand how she envisages she will use her second term as UNSG.

Dr Khan: Thank you. It's a real pleasure to be back.

Interviewer: Dr Khan, we have observed the events since those fateful years when a strong isolationist political wave swept across the world. What do you make of it and where are we right now?

Dr Khan: The period 2015-2020 was phenomenally interesting. First because there was this wave you have mentioned, but every wave has an undertow — a current that moves in a direction opposite to the wave. And so, while we saw movements towards nationalism and "National Interests First" we also witnessed the coming together of the more liberal cities to determine national politics. Remember, that it was the ageing migration-sceptic middle class voters predominantly in small town and rural areas who shaped politics. I think, in those days we were witnessing an almost perfect storm that was

caused by three distinct systems. First, we were caught off-guard by the priorities and grievances of these shifting voter statistics; second we ignored the weight of "minor" cities; and third we ignored the fear people felt around issues they thought were too large to control and too close to them to ignore. We witnessed, in a sense, a deep generational gap: the baby-boomers and older on one hand, the Gen X and millennials on the other. Back then we did not segment the voters and tax payers along their need and priorities. Which is odd, because every product on the market was so segmented that everyone could find what they wanted, without excluding anyone else.

Interviewer: And where are we now?

Dr Khan:

Before going there we must understand how we got here. You will recall that the backlash — or the undertow I spoke about — was represented by a wave of young leaders. Here we are talking about Europe and North America mainly. Because in Asia, the story was different. It is fair to say that particularly China has greatly benefited from this clash of generations and the resulting political and economic isolationisms. China built its corridors, invested in Africa, received the brightest migrants who felt they would not be welcomed in Europe or America — or who would not wish to move to economically stagnant countries. To put it bluntly, some blocs of countries disintegrated, while big countries lapped up the baby that was thrown out with the bathwater. Sure, plenty of young and youthful leaders were elected in this undertow, but it takes some time to piece together a broken vase.

Interviewer: Fine. You speak of broken vases — assuming you are talking about the EU, but perhaps also the trust of nations. Apart from the UN, what other post world-war II institutions do you think are still relevant today?

Dr Khan:

You are right, the trust in these institutions was lost. Ironically among the very people who have perhaps benefited the most from these institutions. And it is only thanks to increased financial and political support from China that the UN is still alive today. The organs and institutions of relevance today have been redefined in these past 20 years — mostly around the newly identified needs, like trade, a reduced Europe and a vastly expanded China. Pragmatism rules the day for the nations and regions that do well; while narrow identity-based cultural priorities have dominated, no, held back, the other regions and countries. These were countries that aimed for small-is-beautiful. Migration and the arrival of millions to Europe had much to do with it. Charter Cities were an innovative way of productively dealing with migrants. I urge you to read some of the papers published about the successes these cities had.

But also: a few words on cities. As you know, populations have concentrated in cities; this has been true for some time. This matters because today the political calculus revolves around cities. Remember what I said earlier about the priorities and grievances of those living in minor cities? Well, today that structure is different and governance has changed. Cities have changed: transport, health, housing, farming, public spaces, education... These last 15 years have brought such changes that it is difficult to believe that we still use the term "City". Of course, the biggest cities have seen the deepest changes; and the efficiency gains that have resulted mean that migrants integrate easily and freely. Indeed, everyone is able benefit at almost no cost. It must be said that some cities are more advanced than others, and there is a clear correlation between those countries that have isolated themselves in the late 2010s and those that have taken a more open and pragmatic approach.

Interviewer: And what of your own region, the Middle East?

Dr Khan:

As you know I pushed very hard both in my think tank and the UN to take a "Country second" approach, attempting to achieve simultaneously national development and global altruism. It was inspiring. So much so that the "fortress" outlooks of some countries are now beginning to shift. I think a good example is the way the "Middle East Powers" have found ways to establish peace in Syria. You think this is contrary to "Country second"? I disagree: a country-first would mean there is still war. To get out of the maze of walls and exclusions that was created from 2016 we have to take a fresh look. And we have to find the right questions to ask. For example: Why did we believe institutions

would be eternal and why are we so reluctant to change or even abolish them? I think some countries and regions can emerge stronger from the difficult 15 years we have gone through.

Interviewer: What, then, is on your agenda for your second term, Dr Khan?

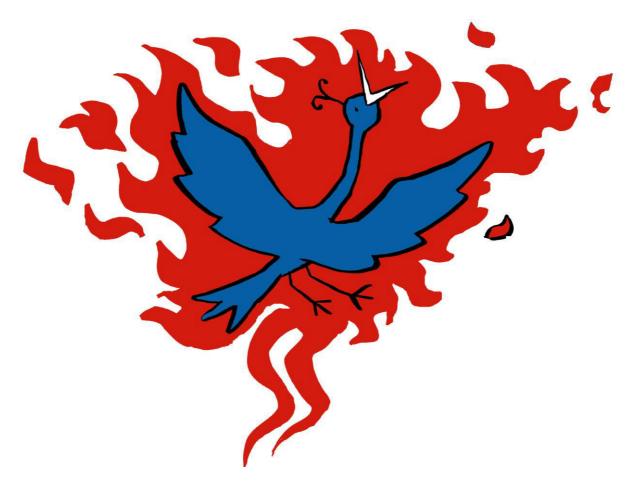
Dr Khan:

I think the time is ripe for the UNSG to become again a "world moderator". I see my role as facilitating the transition from a world that has dipped into isolationism and the exclusion of others, not leas migrants, on one hand towards a new definition of a global outlook for the future. I respect the national sovereignty of each country and their elected officials. I will work with them to articulate a way forward and identify whether new global institutions are needed or whether we will live in a pragmatic world of regionalism. Do not forget: the SDGs have of course been achieved mainly in cities, not countries, around the world. That is why we are talking of City SDGs... I think there is appreciation now for the massive differences and gradients created by the politics since 2017. These differences have created gaps that must now be filled. I will spend my second term focusing on the global aspect of the GSDGs, the Global Sustainable Development Goals.

As you know, I have been in China very often during my first term, and the president has been very proactive and supportive. I think we are entering an era of Asian dynamism that will ultimately lift all boats. China has been pivotal in ensuring the existence and application of the Regional Compacts for Migrants and Refugees. Africa has greatly benefitted from these Compacts. I think we can use the pieces of that vase and use them to assemble a vase with a new shape and a new purpose. Let us understand the recent history and appreciate the shifts. The world is not what it was after World War II. The UN has — finally — a female Secretary General. The future is ours to shape. This is a real opportunity.

Interviewer: ...and on that note, I thank you for the time you have given to us. It's always a pleasure to have you come onto our programme and listen to your views. We will follow your second term closely and look forward to our next conversation.

3.2 WORLD ON FIRE



World on fire: The scenario in brief

World on fire is a story of complacency, unresolved crises that spill over, and the proliferation of strongman politics. Alpha males rule and in their short-sightedness create effects that prove impossible to halt. This scenario is also the consequence of too many stressors on a global system that cannot be stretched any further. Climate impacts are too severe, resource shortages are insurmountable, global institutions are rendered toothless, and there is too much going on to keep in check some small opportunistic "cancers" that hack into global financial systems and undermine economies. Because it is a gradual worsening, some people fail to realise that this slippery slope becomes steeper. The inevitable outcome of global breakdown is not by design but by lack of counter-design. The embryos of normal life will ultimately emerge from city-fortresses and a young generation most of them born in the 21st century – fighting the disastrous status quo of 2030.

Implications for migration are severe. Most human mobility is displacement and people become refugees. Definitions become blurred and institutions thus become ineffective. The number of global migrants and refugees grow at first, then skyrocket. Hundreds of millions of people will move in search of survival, peace and safety. These movements are disorganized and improvised in response to changing situations. No region is exempt from this terrible fate, though some countries or parts thereof, or come cities, become safe havens.

The main message of this scenario is a call for action: if attention is not paid now the seeds are planted for the following outline of self-destruction. Though maybe the world has to catch fire to rise again like the proverbial phoenix from the ashes.

World on Fire: The World of Migration in 2030

Due to the extensive conflicts and movement of people, border control systems have become wholly ineffectual and unable to cope. Ultimately, migration control systems have collapsed because of the failure of

the international community to develop cross-regional migration regimes. The international protection system based on the 1951 Convention is so overwhelmed that it has ended up being irrelevant. Migration as it was known in 2017 has for the most part ceased to exist. And the decay of social and political systems has led to the irrelevance of migration: so many people are on the move and nobody counts them or puts them in categories like "migrant" or "refugee". The world population is lower than predicted in 2017, but numbers of people displaced have risen dramatically.

Most human mobility is displacement and people are refugees. There is limited labour-related migration and people who can stay in their place of residence stay there. Plus, the distinctions between people leaving a country due to work shortage falls together with other negative conditions such as migration for violent conflict, disasters and more. But definitions have become blurred and institutions have become ineffective and irrelevant. The number of people on the move has skyrocketed. For many, migration has become a necessity, not a choice. Hundreds of millions of people have moved in search of survival, peace and safety. These movements are disorganized and improvised in response to volatile situations. No region is exempt from this profound fate. Countries that are willing to take in migrants or refugees are very few indeed and the magnitude of people looking for safety stretches capacities beyond national possibilities. International organisations and NGOs dealing with migrants and refugees have largely collapsed due to lack of funds and are overwhelmed for the sheer volume of people on the move.

Nevertheless, some countries or some cities are safe havens – sanctuaries. Paradoxically, precisely because there are such safe havens, there is a growth in trafficking and smuggling – a return of slavery – which results in more (and more heavy-handed) attempts to control migration. New, very localized, control mechanisms are developed: there is no space for centralized global data or use of international systems to vet and verify migrants. Countries and cities implement ad-hoc tools like reference letters, sponsorship procedures and other, as a measure of self-protection.

The world is fragmented and barriers have been erected. These are close-to insurmountable obstacles for migrants seeking safety. At last, the cities and countries that do welcome migrants are managed and established with a new ethos. The global difficulties of conflicts and movements will breathe new life into the world of the future. The lost generation of today will be the protagonists of tomorrow.

World on fire: How this happened – the World to 2030

The writing had been on the wall for years: cross-border conflicts have disappeared by 2017, but the societal conflicts, or civil wars, have remained numerous. In fact, civil wars have increased since 2010. By 2016 some 36 cases of armed conflict were ongoing. There has been an increase of such conflicts over the past 10 years, representing a changing trend since the collapse of the Soviet Union. Alas, 2017 and 2018 are also easily expected to continue the aggravation of the confrontation in the Korean Peninsula and new intra-state violence in parts of Africa and a continuing trend of radicalised terrorism. Countries like Yemen collapse while some truce is brokered in Syria among the key global actors. Insufficient global leadership translates into half-hearted international efforts to reduce conflicts in countries of lesser global geopolitical interest. The number of migrants and refugees observed during the second half of the 2010s continues to grow both within borders and internationally. Indeed, a growing number of countries issue travel bans, establish blacklists and place other countries on them, affecting both travel and migration.

The Global Compact for Safe, orderly and regular Migration and the Global Compact on Refugees are both officially adopted in 2018 by the UN General Assembly. However, the international instruments to manage orderly, safe and regular migration are largely ignored by most of the traditional destination countries in the global North. These countries have "bigger" issues to contend with: in 2019 the geopolitical power play in Eastern and Southeastern Europe prompts a new wave of fleeing civilians.

The religion or national origins of migrants are continuously used to justify political manoeuvres: large-scale expulsion and deportation according to religious identities and de-naturalisation of suspected terrorists are the order of the day across the world in 2030. But the stigmatization plays right into the hands of radical groups who want to divide societies and need a reason to recruit more people to their hateful cause. As a result, Europe and the US face more terror strikes than ever. This precipitates an increase in Islamophobia and wanton attacks on specific religious communities worldwide; it also ends refugee resettlement programmes to European countries and to North America. Short of calling such events a religious conflict, a

coalition of countries harnesses the political climate to organise strikes on suspected nuclear facilities in the Middle East.

These developments are not solely international. Some countries in Africa also witness internal religious and socio-economic community tensions. Many of the grievances and the need for development went unheard for too long, erupting in violence and political upheaval. International commentators all too quickly dismissed these events as symptoms of young democracies. But these observers' arguments became shaky when Scotland and Catalonia unilaterally declared independence by 2022. Grievances around the world are at the heart of secessionist movements.

The stability in a range of other countries was undermined by the progressive privatisation of security forces. Lebanon, Turkey, Jordan, Egypt, US, Russia, Afghanistan, Iraq, Mexico, Bahrain and Saudi Arabia all use sizeable private security forces, which could render them a liability for some sections of society, or neighbouring countries. Migratory flows in the Middle East soured and the region is thrown into turmoil as oil prices collapsed. The economic fallout had political consequences: the rise of new opposition actors and dissidents in the Middle East spell a new era in the GCC countries as religious uprisings are the order of the day.

By 2024 Egypt's socio-economic position becomes untenable, while Libya's has never been resolved. Consequently, the flows of migrants from and through North Africa and the Middle East dwarf those witnessed in 2016. Efforts to crack down on migration to Europe by copying the other regional models make the way to Europe more dangerous. Despite signing up to the Global Compacts only six years earlier, European countries close their borders, and rely on detention and forcible returns. Migration routes are globalising in parallel with a punitive border security model that puts migrants at greater risk. The global political climate allows this to happen, and many feel that this represents the sole option.

While these events are ongoing, tensions continued to mount in Asia, culminating in conflict and military hardware installed in contested locations. A standoff became unavoidable with repercussions as the conflict escalates and people within China migrate away from some of the major coastal cities, feeling unsafe. This coincides with the water wars that have rocked Asian. Existing regional bodies in Asia are, as a result, at breaking point. Regional trade agreements are suspended and millions of people are deported – not just within Asia but more widely, too. Once again, although countries are struggling, sanctuary cities emerge, offering inclusive and novel approaches. For example, environmental and essential resource costs are weighed against economic activities; waste-water hydroponics to grow vegetables, mealworms for protein production and sea-water resistant wheat and other grain varieties are grown in salty water.

The latest of the countries to face 'east-west' existential challenges is Turkey, with the quality of life, diminished dramatically over the years and increased population and social strains.

The world is in turmoil and focussed on the dozens of big ongoing problems. This weakness, or distraction, is exploited and a global anonymous collective mounts a coordinated cyber-attack on what is left of global financial centres. Although by 2026 all transactions were protected and verified through blockchain¹, the cyber-attack managed to freeze users and institutions out of their accounts. Only major ransom payments were made to allow the rightful owners back into their systems. This attack was replicated several times and undermined trust in the remaining online systems. People who still had some money switched to gold. In these days of financial hacks, political instability and war, gold was the only material of value.

In an attempt to establish a sort of global order, a World Summit was convened, but poorly attended. There were too many ongoing crises for heads of state to (safely) travel and attend world matters. This poor showing to restore world order proved a deadly blow the United Nations, which by then had already shut many of its specialised agencies. The UN's relevance was called into question and funding had all but disappeared.

Eventually millions of Chinese were internally displaced following a few cataclysmic years as nuclear conflict erupted in the the neighbourhood – none of the global super powers could contain the escalation, all threats,

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¹ a digital ledger in which transactions made in bitcoin or another cryptocurrency are recorded chronologically and publicly.

bluffs and negotiations having been exhausted. Shortly thereafter and under the shroud of escalating global warfare a simmering, and now very real, border conflicts threw Asia some of its biggest challenges. The conflict escalated when a series of bomb explosions in the region spurred the mobilization of military forces and the displacement of hundreds of millions. Movements of this magnitude had never been witnessed before.

Throughout this period, Latin America and Africa remained relatively unscathed. While at first people migrated from North Africa to Europe, the situation eventually reversed. With all-out wars in Asia and the collapse of Turkey, the strain on Europe became enormous. Europeans began seeking refuge in various African countries – those that would take them in. Latin America, too, became destination of increasing numbers of migrants.

By 2030 the world looked fundamentally different compared to 2017. Priorities had altered: climate change was not a matter of urgency, survival was. Asia was in turmoil, stabilising institutions having disintegrated and financial systems crashed. But, not all was lost. The spirit of some movements has remained strong. Mayors, bloggers, environmentalists, civil society have never given up. It was mostly the strong-man politics that had created a terminal mess. In 2030 the seeds of re-birth were already showing small sprouts in sanctuary cities, in safe regions, through responses from the ground up, where people are more politically and socially engaged. But this will be a story for the 30 years to 2060.

World on fire: A personal story

Transcript of the online chat among five friends: Elvira in Yemen,
Marc in South Africa,
Mahmoud in Venezuela,
Özlen in Bangladesh,
Chang in London.

January 5, 2025 and the five friends have been through thick and thin since they met on assignment exactly ten years earlier in the Mbera camp in Mauritania. Mbera was at the time home to over 70,000 refugees, mainly from Mali. At that time, Mbera was the 6^{th} largest refugee camp in the world. Today, ten years on, if anyone were doing a census, it is the 27^{th} . But nobody is keeping count, and the definition of "camp" is also not valid in the sense of the 2015 definitions.

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>Elvira: hello all – anyone here yet?
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>Chang: Hi Eli! You got a signal to connect – excellent!

>Elvira: Chang! It's been ages — how's life? How's your recovery going?

>Özlen: Hello all! Finally made it, too! Elvira! Chang!

>Elvira: Özlen!

>Mahm99: hang on a sec.... sorting out tech....

>Chang: Hey Mahm — same old tech issues, huh? Good thing you're not looking after the circuits in my legs... just kidding- how are you?

>Marhm99: You'd be as fast as the Six Million Dollar Man! Thou 6mil wouldn't buy much these days...

>Elvira: anyone got any news from marc?

>Özlen: no, where is he nowadays?

>Chang: ??

>Mahm99: still in South Africa time I heard, but that was five yrs ago

>Elvira: yeah, that's what I got too...

>Özlen: where's everyone else? I'm in Dhaka

>Mahm99: Caracas

>Chang: good ol' London England:

>Elvira: Sana'a, what's left of it... you know I came here straight after Mbera.... The conflict has never fully stopped or been resolved. Anyone still in touch with ppl from Mbera?

>Chang: wow – Sana'a for the past 8years? You're brave! I had to get out of Egypt. ...

>Mahm99: hey Chang – I've not told anyone the details. Y'know,,,,,

>Elvira: What's happened?????

>Chang: here's the short story: got my legs blown off in Port Saïd, Egypt...

>Özlen: holy mackerel.... What happened are you ok now? How did you get to London?

>Chang: you know I have been in the region for some time. It's been such a mess. I mean back when we met in 2015 the world was a messed-up place, but it just kept getting worse. Don't know if its just me, but stuff just did not get any better — no big conflicts got resolved — I mean, Elvira — you've been in Yemen... you know, right? Anyway this whole region blew up, starting with Iraq, Yemen, Syria, Libya and South Sudan... Iraq, plus the fallout from those massive movements of people everywhere. All those radicals, and I don't just mean islamists, I mean globally... And then those nuclear facilities in Arak and Bushehr are taken out. The timing of that was just great — I think in 2022 3 years ago — just as this mess was going global — you remember the oil price dropped to less than 20\$? Overnight countries in the Gulf were bankrupted — the only ones with some money were the Saudis because they had sold part of their Aramco shares and made trillions back in 2018... but that sparked an uprising. Suddenly the GCC was in trouble. Libya another ever-burning fire, and Sudan..... There only one way out of this terrible mess was by boat — I was in charge of getting folks to "safety" somewhere in the Med. That's why I was in Port Said, among the millions who sought refuge. It was impossible to patrol... and then some grenades were lobbed. Of course, impossible to know who... Drones picked up this mess and I was lifted to the nearest medical outfit — not much to speak of, and after months I was taken to London. That was a lucky escape. Most were not so lucky.

>Özlen: this is crazy! I have been so preoccupied with my work here in Yemen, Bangladesh and Turkey — my own country — that I've almost lost sight of all the other disasters over the past years. Man, it truly is the age of the Alphamale, huh? I mean is it just me but it feels like all these men just want to hold onto power or grab it from someone. Remember Kim Jong Un? That was a set of close calls with Trump. And what about the eastern European chess board?

>MarcInZA: Hello allIll!!!! Long time !!!!! Wow – you've been having a heavy conversation.,,,,, sorry to join you just now.

>Elvira: Marky! We thought you had not received my emails about linking up today, to celebrate 10 years!

>MarcInZA: looking by your exchanges so far, it's been some celebration....

>Mahm99: Mark great to have you in our conversation — what's your thinking... is the world as bad as we make it out? Dominated by Alpha-Males as Özlen suggests?

>MarcInZA: straight into the deep end, huh? Look, I'm in South Africa and the events you have mentioned have unfolded differently here. Or at least the impact of other global events have been felt here in different ways. All the stuff Chang has mentioned in North Africa has spilled into South Sudan, and further south into the Congo Basin, as well as west into Chad. It's been a mess because of the previously unexploited and meagre deposits of petroleum,

uranium, tungsten, gold, iron ore, and titanium have become interesting to China. That has suddenly awakened the attention of the leaders of Nigeria and Libya. So, Alpha males? Abso-alpha-lutely! ...and they are thirsty — thirsty for water, which is now even more precious in this region than the metals... I've not been able to go back to N'Djamena — too dangerous even going near the borders. You know I was posted there years ago...

>Elvira: Let me then provide you with an update from Asia... because there are some bright spots! Yes, the water wars in Asia are still ongoing. But we are also witnessing the emergence of "sanctuary cities" where people come together, determine their own governance and try to keep safe from all the fighting and horrors outside. There are many such cities in Asia and I heard that there are also in South America?

>Mahm99: yes, after to collapse of a couple of national economies there has been a retreat to the countryside and to some safe cities. It's too early to say whether they will become the embryos for new countries, but it is clear that people here refer to themselves as belonging to a city, not to any one country! This is creating other interesting dynamics: because of all the conflicts in in the region and the expulsion of millions from the US, as well as people fleeing from other countries and coming to these safe cities, their residents are also more tolerant of other nationalities: as long as citizens — in the true sense of the word — are contributing to the city's safe and peaceful ethos, they ae welcome.

>Özlen: So, guys, where do you think all of this will be taking us in the coming years? I don't see it getting any better and what quite worries me are the water wars in Asia, the consequent demise of regional bodies in Asia, over 400million people on the move internally and nearly a billion globally... good thing the economy has been growing so much before all this....

>MarcInZA: well... remember Shaltai Boltai – the Humpty Dumpty group of Russian hackers arrested back in 2017? I hear that their name is being used again by a collection of hackers around the world. They have been targeting financial institutions. And, unlike 20 years ago, these folks are well resourced and have quantum computers. I would not be too surprised if they were coordinating a global attack on financial centres. This would crush China and what is left of European and American wealth...

>Chang: and if you want to become super-adventurous I could imagine the troubles in Asia getting out of hand: all sides have been testing missiles and been active with their nuclear equipment. It has been touch-and-go for decades now. My friends from the nuclear watchdogs are monitoring sites remotely. As always the negotiations are slow, and that's an overstatement. So, if the region collapses and everything else in the world continues as it has been for the past 5-7 years, I could even see a nuclear conflict!

>Elvira: but the world summit for restoring order is planned for next year – surely people will come to their senses?

>Mahm99: Eli, where have you been all these years? The Security Council has been split for years and no change of consequence passed; the assassination of that big country president a few years back still means there is no trust whatsoever — it's eight years since that event and they still don't know was behind it all... And of course, hundreds of millions of people fleeing, migrating and generally moving — no country feels like it is going to be same again...

>Özlen: Now I am depressed... is there not any kind of hope? I cannot believe that this is how humanity will fizzle out...with hundreds of millions on the move, countries building ever higher walls to prevent access. Countries are also bogged down in definitions once again — there is such a mix of migrants and refugees and the volumes are such that the international system has in effect broken down. I can imagine that migration will literally be for survival — it will be a means to attempting to secure the bare necessities for survival.

>MarcInZA: Look. The outlook is bleak; I grant you that. And the regional blocks and the UN have all but collapsed. The world as we knew it has ceased to exist and it looks as though a more sinister period lies ahead. But, at the same time, groups of individuals are self-organising. There are so many social movements that transcend any national borders and differences. They are re-imagining their world in ways we have not been used to for some time. People who are fleeing seem to be converging in places that manage to offer a minimum of safety and security. Though I am in South Africa, and you may think I am biased, parts of Africa have become such destinations.

>Chang: there is no denying that the world order of the early 21st century has disappeared. Perhaps this is what was needed? I remember that the prevailing feeling at the time was so restrictive – strong divisions and limitations,

inequalities, continuous global threats... It was like throwing more and more fuel on a fire under a pressure cooker. The explosion was bound to come; it was only a matter of time. Now, the playing field has levelled and there is an opportunity to shape a new world.

>Mahm99: Guys, none of the really bad stuff has come to happen yet. Though I can see that it might. So, before I sign off, let's reconvene again, in 10 years' time. And discuss again the world. Who knows where we'll be? I for one hope that Venezuela will be in better straits... and that the downturn in Latin America has subsided.

>Elvira: Good idea, I like it and will organise it. So look out for a contact from me in 10 years! In the meantime, I think that I'll be out of Yemen very soon, not sure where. I may just take some time off and regroup with my family somewhere safe...

>Özlen: Yes, no way l'll be going back to my country anytime soon, but l'll stay put here in what's left of Bangladesh – there is much climate work to be done, and it's desperately needed. So l'll stick around. In any case, l'm hopeful for the world and look forward to talking again in 10.

>MarcInZA: I'm in. I'll stay in Africa, I think it's the only place where something new and creative can sprout. I'll update you next time we talk.

>Chang: sounds good. I may retreat to Scotland – it's calm there, and since I had been undergraduate student there years ago, they might just let me across the border from England. Everyone: hold on tight for the next 10 years – it'll be a rough ride!

3.3 OPENING ROADS



Opening roads: The scenario in brief

Opening roads is a scenario about recognition of the value of collaboration, respect for the rule of law and human rights and their potential accelerating effect on added results and steady progress towards the implementation of the SDGs at many levels. In this scenario there is a generational shift towards optimisation of the benefits of migration; socio-economic inclusion is very much part of this, and how migrants are perceived by the public in host countries changes dramatically over time. The spirit of international cooperation underpins many, or most of the policy and political decisions of this scenario.

From a migration perspective, the outlook in this scenario is not unconditionally hopeful; migration continues to be a sensitive issue, one that can still create political discomfort but there is broad consensus that it is an integral part of our globalized world. The implementation of the Global Compact for Migration (GCM) and the Global Compact on Refugees (GCR) now provides a stepping stone for the governance of human mobility in the 21st Century. A large number of displaced persons still await a sustainable solution; there have been more comprehensive approaches to mobility and migration in recent times and the international community has been able to respond effectively to those who require protection, assistance and sustainable solutions. Immigration-induced benefits are recognized and migrants have increasingly played a role and contribute socio-economically to the communities that receive them. The benefits of inclusion are recognized in the receiving communities.

In this scenario, we see the end of the great global recession that begun in 2008. Economic recovery among the G20 and the emergence of new economies have been accompanied by renewed demand for migrant labour. In general terms, migrant workers now are more integrated, enjoy higher levels of protection and have better access to essential services, and also rely on sustainable livelihoods that enables self-reliance and an increased degree of choice.

Opening roads: The World of Migration in 2030

Throughout the years since the 1960s and up to 2030, the global proportion of migrants to the total population will remain unchanged at roughly 3%. In high income countries, net migration is projected to account for roughly 80 per cent of population growth and most rich countries would shrink without immigration. Increased cooperation on migration governance and creative thinking to address challenges and tap into opportunities have led to more sophistication in migration governance overall and the realization that the agency and creativity of migrants was a major asset to match labour demand and individual skills. Much of SDG 10.7 target on orderly, safe, regular and responsible migration and mobility of people including through planned and well managed migration policies is achieved as countries develop more comprehensive and coherent migration governance frameworks while also recognizing migrant agency. There are clear indications that migration is becoming safer as more people are able to access safe regular pathways. Human mobility is included in trade agreements and while migration featured on the G20 agenda intermittently up to 2016, by 2030 it is a permanent item.

Substantial progress is also made on other Sustainable Development Goals (SDGs) by 2030, such as 8.7 – significant reduction in forced labour, modern slavery and human trafficking; 8.8 on labour rights and safe and secure working environments for all workers including migrant workers, in particular women migrants and those in precarious employment; 17.18 on enhanced data capacities and availability; 3.8 on universal health coverage and consequent reduction in pandemic occurrences; 1.5 on climate change resilience; 11.b on cities' integrated policies. There is a growing recognition that new technologies and Big Data can complement other sources of data to inform migration policy in real time.

Noticeable progress is achieved on the 2016 New York Declaration commitments as well. Namely on better protection of the human rights of all migrants including refugees, regardless of status, including the rights of women and girls and their full, equal and meaningful participation in finding solutions; all refugee and migrant children able to access education within a few months of arrival and children no longer detained for the purposes of determining their migration status.

Poor countries rescuing, receiving and hosting large numbers of refugees and migrants receive the necessary legislative and financial support. Countries in the developing world affected by large unexpected flows and or protracted refugee situations are able to access humanitarian and development assistance including through innovative multilateral financial solutions, and resettlement programs have increased in size and numbers. Comprehensive responses to large numbers of internal and internationally displaced persons are agreed to and implemented, with full recognition by Member States, civil society partners and the UN system of their respective roles and responsibilities.

Xenophobia against refugees and migrants prevailing in earlier years subsides with expanding evidence and recognition of immigrants' positive contribution to hosting societies' socio-economic development, as well as a generational change in recognizing social diversity as an asset rather than a threat. The fight against ethnic, religious or gender discrimination has progressed. Economic development and advanced technologies have contributed to substantially increase employment opportunities in many countries also in the global South, but especially in large cities thereby absorbing large numbers of migrants. Innovative secondary cities also become destinations for national and international migrants. National border management systems include evidence and integrated intelligence mechanisms to more effectively and equitably address flows and facilitate spontaneous, individual labour demand and supply matching.

Sufficient funding for migration governance systems is provided by governments to achieve the intended outcomes and objectives as set out in the Global Compact for Migration. By 2030, the global value added in managing human mobility through cooperation and information sharing is recognized and human capital is also treated as a global resource and asset. Multilateral agreements are in place to govern the mobility of individuals in ways that are mutually acceptable to countries of origin and destination and the private sector and that respects the rights and interests of the migrants themselves. Economic cooperation, globally and within regional blocks eventually prevails over protectionism, facilitating trade and human mobility and integrated labour market systems. Integrated economies benefit from fully digitised mobility verification systems and global databases.

Migration and planned relocation as adaptation measures vis-à-vis the adverse effects of climate change are recognized as necessary instruments within global and regional migration and mobility frameworks. Safe and regular pathways for such migration are created to protect the human rights of those moving and ensure that the migration experience also harnesses the development potential of countries of origin and destination as well as the individuals themselves.

Conversely, the prevailing recognition of the overall market benefits stemming from facilitated migration and mobility does not always favour humane considerations and the weakest may at times actually be 'left behind'; irregular migration, corruption and smuggling businesses are still a focus of concern; the drawbacks of automatism and smart systems call for the upholding of ethical standards and verification mechanisms at all levels.

Opening roads: How this happened – the World to 2030

At first, the paths of regions and countries appear to run on separate tracks, until about 2022, when there is an inevitable convergence.

In general, economic uncertainty, cultural reasons and in the case of Europe the increasing centralization in the management of economic and political issues at the EU level, contributed to driving longstanding xenophobic and right-wing rhetoric for some time and there is still space for such views. This is also the case in North America and in parts of Africa. However, this is not the only voice: narrow populist victories also mean that alternative views regarding the added value of migration persist and eventually emerge. There was also push-back against many of the 'austerity-driven' policies of the late 2010s. Push-back against trade protectionism in favour of much more open trade policies impacting levels of mobility and migration bring about significant gains for mobility regulation and migrant protection.

In 2018, the Global Compact for Migration and Global Compact on Refugees were adopted by all countries in the UN General Assembly. Both have a positive effect in the medium term, by ensuring implementation of countries' existing commitments to abide by recognized obligations and standards - though not immediately, as the way countries deal with migrants and refugees gradually evolves. Destination, transit and origin countries appreciate the importance of working together to manage different flows of people in a responsive and responsible manner. A trust fund was established to enable developing countries to develop their migration governance capacities.

The countries in the Middle East have been inspired by the Global Compacts. As the Syrian war draws to an end, millions return home and, as life is being rebuilt, hundreds of thousands of workers seek economic opportunities in neighbouring countries in search of employment. Gulf Cooperation Council (GCC) countries also use this as an opportunity to revise their own dealings with migrant workers and accept obligations towards contractual labourers. Gulf States and states of origin of migrant workers in Asia reach agreement on a minimum wage for migrant workers and accompanying social entitlement such as health coverage and pension schemes.

Regional cooperation is reinforced, thanks in part to a momentum around cities, and in part to a shift in politicians and politics. In the case of Europe, while Schengen survived and movement continues to be free in much of Europe, border control policies become more effective and responsive, as well as less focused on controls. Legal and safe channels for migration are expanded. The number of migrants dying trying to cross borders falls dramtically. Similarly, other regions such as South America, West Africa, Southern Africa and Southeast Asia develop and deepen their own processes, expanding scope and focus: opening legal channels for migration, trade and political management. By 2024, the G20 had committed to the implementation of the Global Compact for Migration and safe, orderly and regular migration and review of its progress becomes a priority and standing objective at G20 annual meetings.

Cities around the world formed alliances to come up with solutions for shared concerns and to learn from each other. Suddenly, as was evidenced already through joint efforts to address climate change, cities and their mayors have an increased role in addressing the challenges of human mobility – in addition to the traditional seats of power, such as regional and national governments. Initially, mayors of global cities had come together to formulate a white paper on regulating new "sharing" or "platform economy"-type phenomena, such as AirBnB and Uber, or the use of drones for delivery services that increasingly impacted

the way business was conducted in their cities. They quickly had realised that they all faced more serious and urgent challenges: the lives of people in their cities, including the lives of the migrants. Cities had become, almost by definition, collectives of migrants. This is where the future was forged. City governance compacts have become the catalysts to manage migration and integration. At first, this came about through numerous parallel attempts and policy approaches, in an effort to tackle the main migration and integration challenges: the City incubators played a big part. Later, key insights and similar productive practices led to national adoption of effective practices, notwithstanding power struggles that had inevitably emerged within some national governments. Outcomes for innovative migration and integration policies ultimately were part of the new arrangements emerging.

Between 2020 and 2025, a number of trade agreements are concluded, both bilateral as well as multilateral. Some of the more isolationist stances of key countries before 2020 have shown that collective or global approaches are vital for the growth of its constituents. As the trade deals were being negotiated, the private sector pushed for mobility and access to labour markets in a bid to attract the workers it needed. Aspects of human mobility were included in trade agreements, as were parallel improvements of migrant worker treatment. North African and Sub-Saharan countries such as Nigeria, Côte d'Ivoire, Kenya created a strong negotiating bloc with Mexico, the Philippines and others to push for fair migrant treatment and ultimately for the generation of the "Exploitation-Free" label. Africa and Europe reach agreement on a wide-ranging set of migration policy agreements, allowing initially for annual quotas of labour migrants in return for more effective control of irregular migration across the Mediterranean, and increasing the quotas over time so as to effectively facilitate mobility.

As technologies spread globally, and the full potential of technological innovation was better appreciated and ethically managed, access to education improved exponentially even in poor countries that are countries of origin for a lot of labour migration, including through massive open on-line courses streamed into everyone's palm. As economies began to shift away from the "old" fossil-fuel-based technologies to renewables and electric energy technologies, so did the demand for new talent. The nature and locality of work transforms, inducing re-training on a massive scale, but this remains relatively limited compared to the new hires required in China and a number of other emerging economies. Eventually, the rural pools of workers are depleted and demand for talented and trainable workers in more advanced economies in Asia as well as regional hubs such as Brazil in Latin America and South Africa changes the dynamics and geographies of labour migratory movements. Universities also played their part in placing the migration issue on national permanent agendas: 90% of the top universities are in G20 countries and they are in continuous need of foreign students and staff.

In 2029, the movement that started on labour exploitation-free goods has become universal and means that mandatory audits of global supply or value chains are carried out regularly. These exploitation-free audits became an important way to reform employment practices as company valuations reflected company performance on that front as well. Indeed, that was but one important measure that reflected the global shift: pension funds were among the first to pull out of oil-based investments and poured money into green economies. Countries' economic performance was judged with new parameters and only economic activity that supported (or did not undermine) sustainable development was included in GDP measures. Some countries went so far as providing a GDP balance of sustainable versus unsustainable economic growth. Very quickly the resulting shifts rewarded the most innovative and advanced enterprises and business models. Eventually, by 2030, economies were being assessed against all 17 SDGs: while compliance is still on a voluntary basis, investors 'vote with their feet'. Some new winners emerge: Latin America and Africa have shifted to green energy production, are strongly entrepreneurial, provide increasing opportunities to local youth and are experimenting with attracting and retaining skilled labour.

The Paris Agreement on Climate Change from 2015 became increasingly important in global efforts to combat the adverse effects of climate change and adapt to its effects. Although planetary warming continued in the aftermath of the accord and in spite of disaster risks and climate risks increasingly putting more people at risk of disasters and displacement due to the adverse effects of climate change such as sea level rise and desertification, by 2030, ambitions to keep global temperature rise well below 2 degrees Celsius above preindustrial levels had been scaled up. Countries now agreed to limit the temperature increase to maximum 0.5 degrees and projections in 2030 suggest that this will be possible by the end of the century. Least developed countries and Small Island Developing States and their population in particular had still faced major challenges in efforts to adapt to the threat of climate change, but new technology and technology transfers, financial flows

and capacity building proved to have a positive effect on their resilience and their adaptive capacity to climaterelated natural hazards and risks. The potential of migration to contribute to adaption to climate change is increasingly recognized, and migration is integrated more comprehensively into national plans to address climate change.

The United Nations reformed itself drastically to better adhere to the original charter obligations with resulting growth in public confidence – this was not a foregone conclusion some years back. Critics of this institutions lamented its inefficacy and bureaucracy, even blamed for some of the ongoing problems at the time. But then things changed. By 2030 it had become clear that a generational shift has taken place. The experimentation that started in 2017 in the multitude of "labs" around the world has paid off, as has the general move towards more efficient systems in general. The global economy has shifted to being far "greener" than it was a decade or more ago, and gender equality has grown globally. There is a notion that life is easier and improved when solutions, rather than confrontations, are found. The consideration of migrants and people on the move, has been a clear winner: far better and more productive to identify and promote the benefits individuals can bring; far costlier to fight this reality, building walls and risk political isolation. Finally, the role of cities is clear: cities are to achieving the SDGs what China has been to achieving the MDGs.

Opening roads: A personal story

Ladies and Gentlemen, it is a pleasure to address you on this historic day. I have to admit I am nervous, so I thank you for your understanding. As you know, the reason I stand before you today, is by pure coincidence. I was born on September 27, 2015. Yes, that is the date the SDGs were adopted. I was identified by an NGO that helped migrants who arrived in Europe. I was born on an Italian rescue boat. I was born three weeks premature due to the physical and emotional stress my mother went through. This NGO helped me and my family get on our feet and to make a life for ourselves in Europe.

You might think that with the protection of this organisation, the last fifteen years have been easy. Far from it. I will use the short history of my life so far as a representation of the SDGs. There is much to celebrate tonight: most of the SDGs were achieved, but some have not. Now is a time for reflection and assessment. So, let me begin with my own story and you will note how life had a funny way of evolving, and of going on.

A few days after I was born, my twin brother died. He was just a few minutes younger, but he was weaker. My family was living precariously in overcrowded conditions on a small Italian Island. We were in an emotional and legal limbo. What was to be of us? Where would be bury Jamal? Where would we register his birth and his passing? While these were the most dramatic worries now, they were not the only ones. My father was negotiating for us to move to the mainland where, apparently, there were opportunities and a better life and the jobs he and mom had been hoping to find.

Mom's memories are sketchy at this point. She had been through a lot. Eventually we got to Rome. But it was not the paradise my parents had expected. The hostility, the poverty were overwhelming. There was no place for us and people did not want us around. There were so many like us: families in search of a better life. We lived on handouts and avoided the mean looks of people who did not want us in their country. They, too, were struggling. Not like us; they had family and friends close by. We felt so alone... And this was 2018, I know, because mom was beaten very badly. It happened, to so many other foreign women, when it was dark. It was late afternoon, in the winter and she was on her way to collect me from nursery. People had ganged up on her and when she was unable to reply in Italian, they isolated my mom from the busy street into a dark corner of an alley... It later turned out that those who attacked her were also foreigners. These were confusing times. One would think that the worst of the financial and migrant crises would be over. One would think that the SDGs had created some momentum and created a shared consciousness. Perhaps there was a little: when mom was well again, my parents joined a volunteer group when we moved away from Rome and to a smaller city where we felt safer. We had heard that there were opportunities, not so much for work, but to become involved in work and contribute to the community. My father was convinced that this would help everyone realise that given only half a chance, we could show our worth. So we did. My parents helped with elderly people, taking care of their house, their lawns and we would get financial support from the government.

I remember, I was 5 or 6 years old then, that these activities and interactions provided a sense of purpose and belonging. We made friends with the people we helped in the city and with the city administrators who arranged for this scheme to remain alive and be successful. And I became fluent in Italian! I loved going to school although some

of my classmates would not invite me to their birthday parties. I also recall that delegations from cities in other countries came to visit to understand how these programmes were working. And people from companies came too, to see whether such schemes could be stepping stones towards gainful employment. My parents, though happy in this city, were hoping for more at that point. They established links in other cities and countries. They were so pleased when they were among the first to be users of online job and skills matching. I mean, it took years — here I am skipping to the interesting parts, but I now know that companies, corporations had been pushing for quicker and easier movement for workers. When I had turned 9, in 2024, my father was "matched" with a job in horticulture in Holland. You see, he was a successful farmer back home — we would have stayed, had it not been for the fact that the weather had become so unpredictable and farming on the land we owned became impossible. Dad was hired because systems started converging: his volunteering, the vocational training he did, the online courses in farming and horticulture, and his e-citizenship were available to recruiters. This is how a Dutch flower producer found him and an agreement was reached very quickly! Once this happened everything went quite quickly and we moved to the north of the Netherlands.

This to say that while it took a long time to reach the point of this integrated system, once it was in place, everything just accelerated. It was completely straightforward for my mom and me to come with dad. The matching scheme was so thorough and comprehensive, that travel, visas and living quarters had been arranged within days. With everything being digitised and centralised, the level of control makes these movements very safe and expedient for everyone – though a bit creepy... In addition, I have to say that this level of "digital belonging" has saved my life: I got seriously injured during a class trip last year to Vaalserberg, the hill where Belgium, Holland and Germany meet. I slipped and fell because it was so wet; I was concussed and there was risk of internal injury and bleeding. My teachers called a car that arrived within 3 minutes – it was of course a medical unit. The fingerprint reader in the vehicle identified me, the scanning equipment determined my vitals and health status and the remotely connected paramedic assessed that it was urgent to get me to an emergency centre. The nearest centre was in Aachen, Germany and thanks to my digital persona and the autonomous technology, I was taken the five kilometres in four minutes flat. My parents were alerted automatically and they jumped into another autonomous vehicle to join me - no documents were needed to pass the border as their information was centrally stored and readable from their eyes or fingerprints. As you know, basically everyone is connected online, and almost everyone has a centralised digital ID – it's just a matter of time before these efficiencies pay off for everyone around the world, too. And I looked into it: the autonomous car was built locally, the software to run it comes from Korea, the medical tele-devices from Uganda, the personal identification software is open source but managed in Chile, while its hardware is printed in France.

In Holland mom continued her training and was helped finding a job administering a guaranteed income scheme a couple of years ago. Besides, she also runs a digital business...lt has been a long journey and, had the overall attitude of people not changed, our lives would have turned out very different. But I sense that our experience is not isolated: we stay in touch with our relatives back home — there are now greater opportunities in the cities, not only the capitals, but also in the smaller cities where things have been planned more deliberately.

Why has life and life on the planet turned out this way? I like to think that what started on my birthday – the birthday of the SDGs – with a rather administrative concept about the future, has become a global way of life. After all, in 2015, the world was ineffective and full of inefficiencies, mostly due to the fear that the agency of migrants would wreak havoc on many societies' structures and values. In a sense, the SDGs were about being smarter, better and to include and empower more people – everyone.

I started out life as a migrant. Today I speak five languages, have access to the most advanced networks and technologies, and, most importantly, am viewed as a person full of potential. Contrary to the choices my parents took, to leave their country at great risk, losing one child, I can live up to my full potential in a place of my choice—within reason of course. I am not seen as a migrant, but as a member of this globally integrated community that strives to make life better for everyone.

3.4 TECHNOPOLY



Technopoly: The scenario in brief

In the world of Technopoly, technology rules supreme and unchecked. So much so that tech leaders become de facto rulers. There is a power shift, not to key countries, but to the tech entrepreneur elite away from democratically elected political classes. The shift is gradual but inexorable because of the increasingly pervasive presence of technology in all spheres of life — it becomes impossible to disassociate technology from survival, employment, entertainment, health, education, house management, energy and human interaction. Technology is intended as a mix of Artificial Intelligence, automation and technological development.

What this means for migration: the numbers, direction and qualification of migrants will change over time. In a techdominated world, lower skilled labour will be less in demand, and more people will be self-employed through online platforms, requiring less relocation to carry out a job. On the other hand, more and more global tech hubs will emerge and attract highly skilled professionals. Aided by personalised global skill formation and education systems, tech elites will be identifying entire populations or countries destined for specific roles, reinventing a division of labour. Global migration numbers can be expected to fall and irregular migration to practically stop altogether as a result of centralised and ubiquitous high-tech borders and general individual movement monitoring. At this point people are disempowered of any choice as far as migration and mobility is concerned.

Technopoly: The World of Migration in 2030

By 2030 the world will have undergone transformation in every sense. The gradual, at times rapid shift towards full technological integration means that people, their opportunities and their decisions, are governed and controlled by algorithms. At the same time, technological innovation has led to social progress with the expansion of education for all and a guaranteed basic income for some.

By 2030 about 40% of the global population will be under the age of 25^2 . That is, they are born between 2005 and 2030 and only half of them are generation Z – born between 2005 and 2016. The younger ones are referred to as "generation smartphone", or "generation blockchain".

The diminished freedom and greater higher control is becoming increasingly unnoticed by the "generation smartphone" and generation Z. This generation is now already holding economic and political power together with machines, but they are also experiencing an increased fight for power. To counteract this trend of reduced freedom, an increasing number of workers emancipate themselves from the dependence on big companies in creating cooperatives of the shared economy type (e.g. own apps, own services, work remotely).

In this world, there is a general trend towards more temporary legal migration without any paths to citizenship, for both lower-skilled workers and highly skilled migrants. Within countries we observe an increase in regional mobility towards cities, due to the attraction of regional tech towns. As the specialization of the tech industry progresses, mobility among highly skilled migrants rises. Student mobility continues at a lower rate, university education becomes more online and detached, and the students on the move are attracted to new tech hubs instead of traditional universities.

Migrants with lower skills face unemployment due to the rise in the use of robots for jobs such as shop assistants, drivers, hand-sewers, receptionists and many more³. Low-skilled migrants will be forced to return to their home countries, leading to a substantial reduction in global remittances.

Irregular labour migration decreases, as jobs available in destination countries are no longer to be found. At the same time, the number of irregular over-stayers rises, as they have no opportunities anywhere else. New surveillance technology allows over-stayers to be rapidly detected and expelled. In addition, enhanced border controls will prevent new irregular entrants.

Refugees benefit through the emergence of start-ups in refugee camps. They also gain from the universal education programmes available online. In addition, they profit from integrating into middle-income countries, in particular in Latin America and Asia, which are growing markets for tech products. Lastly, asylum seekers' claims are processed more efficiently and with less (possible) bias thanks to robots.

Technopoly. How this happened – the World to 2030

The years to 2020 are characterised by a weakened pushback to technology from "traditional" industries. The innovations, the ease of use and the added quality of life provide such benefits that the costs are forgotten. Although automation grows across the globe and across economic sectors, temporary legal migration increases regionally, particularly to regions like North America, Europe and the Middle East where much manual labour is still needed to support agriculture, care and infrastructure modernisation.

The governments across the world have trouble instituting good governance and balanced regulation of: the activities of tech firms, the companies' extensive reach and their genuine economic and public appeal. The regulatory difficulty stems from a pervasive lack of understanding for the impending changes and the implications of technological advance. In supporting think-tanks and lobby groups tech firms ensure that policy is shaped by technological imperatives. Since the dawn of time information is power; and, already in 2017, "companies rich in intellectual property, like those that sit in Silicon Valley, control about 80% of the corporate pie"⁴. As tech's financial potency grows, tech companies acquire major blue-chip companies, consolidating their position.

While on the one hand the regulatory machines stutter into action, on the other start-ups created by entrepreneurial refugees begin to flourish. The sales chains (i.e. inventory, stock, servers, distribution, credit) no longer need to be in the same place, inter alia thanks to an increased blockchain use, including smart contracts. Refugee-camp based start-ups do well and sell to millions of customers. From 2019, middle income

² United Nations, Department of Economic and Social Affairs, Population Division (2017), World Population Prospects: The 2017 Revision, https://esa.un.org/unpd/wpp/

³ Fabian Beiner, Will Robots take my jobs, 2017, https://www.replacedbyrobot.info/

⁴ Rana Foroohar, Release big tech's grip on Power, June 19, 2017, Financial Times, https://www.ft.com/content/173a9ed8-52b0-11e7-a1f2-db19572361bb?mhq5i=e5

countries in Latin America and Asia increasingly welcome asylum seekers and invest in the integration of refugees, following the adoption of the Global Compacts for Migration and Refugees in 2018. Indeed, these two Compacts were adopted without much fanfare, as more pressing issues started to appear on the horizon—such as the employment dilemma, population ageing, cancer epidemics, etc. While some countries automate production, a sizeable number of countries still see opportunities in expanding production through importation of cheap labour to compete with global robotisation.

In 2019 the growing reliance on algorithms begins to strain international relations: algorithms spark conflict between the US and Russia that results in military action in the Pacific. That same year, skills and education policies are overhauled to better suit the needs for different countries and regions. A true shift gets underway, so that by 2028 children's access to education reaches 90 per cent in the South.

The International Labour Organization celebrates its 100th anniversary in 2019, with governments, workers' and employers' organizations discussing among other things how labour rights can be preserved in this new era of automation.

Technology investments in renewables pay off, and energy costs drop dramatically so that energy becomes almost free. First fully automated rice and wheat production enterprises bring global employment in agriculture down to 5% from about 29% in 2014 – this is a massive drop with enormous employment and labour migration consequences for key countries like, China, India, Indonesia, Bangladesh, Philippines, Brazil and more⁵.

One observes miracle results in tech advances and, among other trends, an enrolment reduction in the social sciences. Mobility among highly skilled workers is becoming more common because of tech specialization. Border controls are carried out using advanced technology, e.g. in biometrics and implants. US firms had experimented with microchip implants for their employees as from 2017⁶. These technologies are developed by migrants to ultimately control the flow of migrants...

In 2021, 95 per cent of the world population has internet access. The continued automation of jobs is met with resistance by trade unions and small and medium-sized enterprises (SMEs) and their associations who underline negative effects on workers and the fact that smaller enterprises lack the capacity to invest in automation. In particular, but not only, older generations who feel left behind, are demonstrating in the streets for "better data protection" and a fairer sharing of the benefits from data collection. Such demands have met with first successes: in some countries, new legislation has been instituted which confers individuals the right to be remunerated for providing personal data to firms. At international level there is discussion to recognize this as a human right. The implementation of this new right does not pose any problems. The sale is a mere click on an "OK" button, and payments for accessing personal data are made through blockchain. This is similar to the olden days when individuals would make money by selling blood; now blood is produced synthetically. Tesla and Google cars dominate the automobile market, following the acquisition by these firms of some of their key competitors.

Al is in charge of ever increasing aspects of life: monitoring and gradual improvement of working conditions of employees across the board (those in the formal economy); decisions on the distribution of social services; control and issue of visas, handling of refugee processing, and more.

The mid 2020s are characterised by a battle for the power of surveillance between governments and firms. Intergovernmental tech spying is on the rise; there is growth of government hacking by other governments; growth of government hacking by resistance groups, etc. All the tools have been available to and created by both the "good guys" as well as the "bad guys", though that distinction has become blurred in some cases. Eventually hacking and "algorithm malfunctions" cause a major stock market crash in 2023, wiping billions off the value of stocks. Algorithms creating upheaval on stock markets is nothing unusual, but the difficulties of reigning in systems and Al this time are unprecedented.

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⁵ Earth Policy Institute, 2010, Top 10 Producers of Corn, Wheat, Rice, and Total Grain, <u>www.earth-policy.org/datacenter/xls/update92</u> 6.xls

⁶ Maggie Astor, Microchip Implants for Employees? One Company Says Yes, The New York Times, 25 July 2017, https://www.nytimes.com/2017/07/25/technology/microchips-wisconsin-company-employees.html

Also in 2023, Ollie, the first human clone is created in an advanced laboratory. This shakes the world. 2023 has become the dawn of a new era: intelligent life can be created using machines and Al.

As concerns migration and mobility, reductions in regular labour flows but also in irregular and ad-hoc labour movements become the norm in the mid-2020s due to shrinking opportunities, in particular manual labour. Jobs in destination countries have been taken over by robots. On the other hand, the number of irregular over-stayers increases as people tend to stay put despite having been replaced by automated systems because the perspectives are no better in their home countries or elsewhere. Over-stayers are mostly those people who could get their families to join them.

After years of work on coordination and harmonization, globalized curricula finally begin to exist, e.g. in healthcare and engineering. The shift towards more service—oriented work leads to closures of private recruitment agencies for unskilled workers. These agencies instead now specialize in skilled ones. As a result, the Kafala system collapses in the Gulf Cooperation Council countries

In 2024-25 despite the low cost of energy production, conflicts erupt around energy distribution between the monopolies that have emerged around the world.

The shape of the world is changing. Global tech cities have emerged. They adopt their own immigration rules thanks to massive sovereignty gains as governments have incentivised regional tech hubs in key cities around the world.

Global unemployment rates observed in the second-half of the 2020s reach unprecedented levels. Return migration among lower-skilled skyrockets, particularly to countries like the Philippines, regions such as Latin America, Eastern Europe and Sub-Saharan Africa. The big migration flows are no longer towards gainful employment but away from unemployment also occur because of obligations to leave. As a direct consequence, remittances decline causing serious development deficits. Because of high unemployment, self-employment has reached 70% and most people are on multiple income-generating assignments, often unregulated by labour law. For a long time, the tendency has been to shift the coverage for social risks such as unemployment, illness or disability to the individual. Possessing an entrepreneurial spirit to thrive, or even survive in this economy, has become critical. Despite fewer people living in abject poverty, profound economic disparities continue to persist within and between countries.

The technological march progresses inexorably. Quantum computing, online health monitoring and patient group-funded research, all have enabled the development of specific treatments, including a cure for HIV/AIDS in 2026.

Because everyone is connected, a global database for skills matching has become available, rendering labour markets more efficient. Countries increasingly specialise in supplying workers for specific occupations and their national education and vocational systems have become aligned with this.

Surveys in 2027 highlight that student mobility is now predominantly towards new "tech hubs" that have emerged in all regions. Technological innovation has become the central driver of the economy of the future. Students aim to be part of this transition and social science studies have become a hobby for the rich at most.

Not all this technology is benign – or at least, not all technology users are: thus in 2027, the high-jacking of algorithms leads to an autonomous drone swarm attack emanating from a small landlocked country, a country that has been at the forefront of drone technology since the 2010s. This and similar incidences elsewhere prompt authorities to strengthen regional regulations on artificial intelligence as it has become crystal clear that technology and Al can lead to serious geopolitical difficulties and conflicts.

Late by some standards, in 2028, 5% of the world's population is now covered by basic income schemes in an acknowledgement that in some cases re-training will not be enough to counter joblessness. These schemes are closely tied to Corporate Social Responsibility (CSR), mostly by tech firms. Extensive lobbying for the past 15 years and debates about taxing robots, have finally resulted in tech companies providing the bulk of the resources for at least partial basic income.

Regional mobility has increased towards regional tech towns, on the heels of the student movements in earlier years. Some tech-savvy and leap-frogging Sub-Saharan African countries started to reap the benefits of their demographic dividend and more regional migration to these tech hubs made them increasingly competitive on the global market.

By the late 2020s, the world has become a tech system – whether individuals, cities or countries, all have to find their function in this vast structure. Movement is allowed only when and where necessary. Optimisation is the name of the game and individual decision making not part of the equation.

In 2030 "generation smartphone" oversees business and government. Robots provide half of all healthcare worldwide. Deaths and injuries from road accidents have close to disappeared with the presence of autonomous electric vehicles. Everyone has a single marker for their identification. The world has embraced technology in its most intimate sense: it has become difficult to distinguish reality from virtual reality; a human operator from a Siri; almost everyone has come to prefer the infallible Al-powered medics over the approximate flesh-and-blood ones.

The other side of the coin, however, are large numbers of people suffering from extreme stress and a surge in suicide rates everywhere, as individuals cannot cope anymore with multi-tasking and total social control. There is also a decline of freedoms for people wishing to migrate for work: countries hold quasi-monopolies on professions and the Al-powered skills-matching platforms make specific decisions, in accordance with the interests of the major global tech firms. Our every move, all the choices we made, all our expectations have been logged in the memories of computer farms, deep in the tundra somewhere, keeping data cool and safe for future use.

Migrants have not disappeared – many are still in countries they might call temporary homes. Others hope in an Al-approved opportunity to migrate to find gainful employment. Workers have rallied across borders and workers' cooperatives have created their own apps to gain independence from the big tech firms, forever hoping to shape their own digital alternative worlds. Migrants and potential migrants are also well connected among each other and have recently elected a dynamic E-migrant global coalition president.

Technopoly: A personal story

Dear Dr Z.,

Please find enclosed our confidential report on "When the tech giants rule". As per your brief, we have reviewed the technological outlook, the attendant power shifts, the implications for private sector and the effects on population.

Ultimately, the question we have addressed is how a tech leader can gain and maintain political, financial and technological power for the coming 50 to 100 years — as this is the more consequential question we understood to be implicit in our assignment.

This exercise has been stimulating, if unusual, in that we could convene experts in fields we were unfamiliar with. The exploration of and speculation around new concepts has been most gratifying and we are convinced you will find our analysis and recommendations helpful. To better illustrate our reasoning, this report looks back from 2030.

As per the terms of our engagement, we have ceased any further research and our team has been disbanded with the strict instruction never to disclose the terms or content of this assignment. Strictest confidentiality rests assured.

With our kind regards,

Chair and Secretary of Technopoly Undisclosed location, Dec 31, 2017

Confidential Report:

How Tech Titans can ensure and maintain global control and do good

Numbers

Let us begin with some numbers: the billionth personal computer was sold in 2002. The two-billionth was sold in 2007. And in 2008 one billion computers were in use; two billion by 2015. And in 2020 there were 6 billion smartphone users⁷.

By 2017 half of the world's population was connected to the internet – close to 4 billion people. After a massive acceleration in uptake – reflecting the peak of Moore's law and the nearly-free renewable energy available – 95% of the global population was connected to internet by 2022. This spectacular adoption of easy-to-use connected devices has only been surpassed by the silent uptake and proliferation of the 50 billion IOT (Internet Of Things) devices steadily logging data in the background.

As of the 2 Ist Century, "billions have replaced millions" in every sphere of our technological lives. There has been an inflation and a market penetration unlike anything witnessed prior: Facebook had 3 billion users in 2020 and some of the most profitable companies, worth hundreds of billions, even trillions, of US Dollars, either are in the tech sector or were started by a tech entrepreneur. True to recent history, acquisitions and mergers have ensured that fewer than 20 individuals control 80 per cent of the tech market. These individuals have reached global super-star status and have become household names. They are a brand. They shoot rockets into space. They buy up blue-chip companies and have direct access to their global users.

Technology

Since about the mid-2010s the high-tech sector in its multiple dimensions (i.e. robotisation, artificial intelligence, communications, etc.) has expanded rapidly and increasingly affected people's lives. The innovations have provided opportunities and challenges, not least in the sphere of employment and job security. The question of robots taking over was mooted some time ago, when it became evident that only a fraction of jobs still required the human touch. Self-driving trucks and cars also took longer to bring to market than initially thought, but killed the combustion-engine industries by 2025. But no matter, because small autonomous vehicles outnumber combustion engine cars on two continents. While the futuristic plans of leading tech companies were being translated into products, an army of lawyers beavered away to ensure the right legal and policy environment existed to cushion the introduction of technologies into the mainstream. Lobbying and pressuring by tech companies surpassed the levels observed from the financial and the pharmaceutical sectors already in 2017⁸. The reality was that government simply did not understand the technologies (or their implications) nor how to regulate them. But government, like people, understood a good thing when they saw it: deaths and injuries from car accidents had diminished globally.

Technology is everywhere. Codes and algorithms are everywhere. The young and the old use, wear and develop technology. Inevitably, the older generations push for greater data and privacy protection. But, as we have seen with the proliferation of CCTV cameras, this is a temporary blip. The reality is that now, as a species, we need technology more than we need water — and more frequently, too.

By 2025, the children who attended Silicon Valley schools in the late 2000s (and their many branches throughout the world), were firmly plugged into society, business and government evolution. Technology is not just a product—it's a way of thinking. It's an attempt at optimising productive processes and making them ubiquitous and close-to-free. Technology is evolution. These early model schools have been replicated and imitated globally and we have seen a shift towards very practical applications and tech-related disciplines. Globally, fewer students enrol in social science studies, more gravitate to software engineering, hardware production, and the like. Back in 2019 education policies and curricula of many OECD economies have changed, and now we see the results. Globally, in every family, there is an engineer, a techpreneur, a tech gig-worker or a professional high tech developer.

⁷ TechCrunch, 6.1B Smartphone Users Globally By 2020, Overtaking Basic Fixed Phone Subscriptions, 2015, https://techcrunch.com/2015/06/02/6-1b-smartphone-users-globally-by-2020-overtaking-basic-fixed-phone-subscriptions/

⁸ Rana Foroohar, Release big tech's grip on Power, June 19, 2017, Financial Times, https://www.ft.com/content/173a9ed8-52b0-11e7-a1f2-db19572361bb?mhq5i=e5

The automation that has followed, albeit more slowly than we had thought at first, has enabled a high degree of self-employment. Nearly three quarters of all workers are self-employed and on multiple jobs. No wonder: agriculture has been optimised and automated; first in the rice and wheat production, then the other grains and, of course, the growth of meat. Processing of immigrants and migrants in general has been automated a long time ago. So now only a tiny percentage of global employees are in agriculture (5%). Ultimately, this level of constant connection and optimisation has reduced the need for workers to physically relocate themselves to carry out their tasks and assignments. The concepts of teleworking have become much more accepted as people perform jobs that are computer-bound and machine-controlling.

Saviour

The proliferation of technology has led to a very real dependence on it. Like everything in life, technology can be imperfect, can be hacked and abused. These are the risks and that's why waivers exist. People implicitly know this — everyone clicks "OK" when installing new software or agreeing to share their data. Tech leaders are their saviours. They fix software bugs. They use individual data to optimise products. They protect as much as possible the privacy of the individual. When the Soccer World Cup was cancelled because of the extensive and deep hacking of the security and ticket issuing systems, Tech leaders came to the rescue and showed that governments were behind the hack attacks. If anything, the tech leaders were seen as the saviours, preventing far worse attacks on other, vital, systems in the targeted countries. Tech leaders also came to the rescue when algorithm malfunctions led to stock markets crashes.

Switch

Susan George assessed⁹, back in 2015, that "... business elites don't want to govern directly. They operate behind the scenes - directing planning, setting standards and fashioning government to maximise their own profits." Now, we recommend that this approach not be changed. There is little to gain from overtly taking power by running for public office. Our research shows that Tech leaders already control the people's mobility thanks to ownership of global recruitment systems, global biometric and technological border control and surveillance system software; global transport systems (cars, trains, trucks, ships, aircraft) are steered by software owned by tech giants; tech companies own, or part-own, energy companies and have massive investments in green energy production; tech groups are vital in mounting resistance by governments against hacking by other governments; tech companies "own" robotics and artificial intelligence. Tech leaders rule supreme over the millions of migrant workers — taskers — who are moved around the globe to a job or back home.

This reality is in effect global dominance. How to ensure this dominance endures? Precisely by playing again the "Saviour" card: Tech leaders must promote the financing and adoption of a universal guaranteed income, or its analogue. Since the mid-2020s the unemployment rates have skyrocketed for unskilled workers, placing pressure on social safety systems. Indeed, the gradual, and at times rapid, introduction of automation, has led to entire cadres of workers rendered obsolete — "obsoleted" as the new terminology goes. To avoid a backlash against tech leaders, progress must be capitalised upon using this three-step approach:

- 1) Promote a very low taxation on technology and robotics, matched by the patent-holding tech company. This implies a minimal financial cost but maximises the reputational gain.
- 2) Increase lobbying spending to ensure politicians run with this concept (financial institutions spent well over \$2 billion ahead of the US 2017 elections, at today's prices some \$10 billion should ensure the same support).
- 3) Utilise the unique access to the billions of online users by creating a popular demand for such an income scheme.

Surely the critics will mount a counter-campaign and claim untold future social and financial costs. But evidence from the early 2020s (and from the Gulf States) shows that people quickly adapt to a guaranteed income.

The guaranteed income will also find favour with the people who have benefitted from remittances their migrant relatives used to send every month. Tech leaders will more than fill the void on both sides by providing an income and corresponding remittance! It is the most effective means for dealing with the highest rate of unemployment the world has seen. Thanks to tech titans, fewer people will live in abject poverty (though the actual number may not change, but tech leaders cannot be blamed for that!), and once again tech leaders will be heralded as saviours.

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⁹ Susan George, 2015, Shadow Sovereigns, https://www.tni.org/en/publication/shadow-sovereigns

Building

The new world you are building is about health, clean energy and cities. Thanks to your efforts in Al, virtual reality and synthetic biology, a cure for AIDS has been found in 2026—yes, your quantum computers have identified the molecular interactions between virus and immune system. You will be awarded the Nobel Prize for medicine. Your world will be propagated in regional hubs, financed and incentivised by governments (by you, really) to attract the most talented global minds. Students flock to such cities of technological excellence; the cities will become technology nodes that churn out new ideas and fending off invasion and destruction. Here we are not talking about the stuffy old colleges our grandparents considered top-notch. We envisage new hubs, virtual teachers and students, 3D holographic presence, and much more.

Energy consumption dropped since 2025. Its generation is now renewable and its cost has fallen to close to zero. Solar and hydrogen dominate the market and quantum computing allows for the creation of new designs to distribute energy without loss. The regional power blackouts witnessed in the early 2020s were the result of the massive consumption of pesky tweets and cute-cat photos; it nearly brought the internet to its knees. But the near limitless amount and the efficient distribution of energy nowadays has done away with such problems. And the oil market has all but collapsed: its prices have become so volatile that only a few countries find it economically viable to still be in business. Sheikh Yamani's old quote¹⁰ now applies: "The Stone Age came to an end, not because we had a lack of stones, and the oil age will come to an end not because we have a lack of oil."

You, tech leader, are building all of this. While you are making the world a better place you will remain at arm's length of the responsibilities and potential public scrutiny that political leaders have had to contend with in the past. What's more is that you belong to the global ecosystem of tech leaders — it will be increasingly easy for you to shape global policy around issues that matter to you. You can shift the human masses around the world. You will determine who works where: some manual and physical labour will still be needed; your software, tools and distribution means you can "upskill" and specialize entire countries to service specific global sectors. In the past Rumanian and Moldovan women were leaders in elderly- and homecare in Italy; Plumbers were all from Poland; nurses from southern Africa. You have the wherewithal to determine the future of entire continents for generations to come, and likely be focussing on the best and brightest. You will oversee the setting of global migration rules. The UN Global Compact and the Global Redesign Initiative of the World Economic Forum have generated the ideal platforms for tech-to-policy network to wield your power.

You will be commandeering the new population of human clones. Yes, the first human clone created seven years ago, in 2023, was also the product of one tech leader's investments and products. So, there is very little that does not fall under your purview, and there is no need whatsoever for any formal political role.

Addiction

In conclusion, as long as the world keeps being addicted to the technologies you produce, you will remain in charge. This means a sustained investment into R&D, buying and incubating the right companies/startups, and dealing with the occasional fallouts or massive hacks. This is your century. You are in charge and this is your golden era – excitement about science and technology, unprecedented influence, global impact and decision-making beyond anything ever thought possible. And the world will remain addicted to technology because lives will feel so connected, consequential, and important. Let's face it, the world's cucumber brains have been pickled, and they can never go back to being cucumbers again!

¹⁰ Mary Fagan, 2000, Sheikh Yamani predicts price crash as age of oil ends, http://www.telegraph.co.uk/news/uknews/1344832/Sheikh-Yamani-predicts-price-crash-as-age-of-oil-ends.html

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